

NPORT-EX 2 fp0081614-60_nportex.htm

MassMutual Total Return Bond Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 0.1%		
COMMON STOCK — 0.1%		
Communications — 0.1%		
Telecommunications — 0.1%		
Intelsat Emergence SA (a)	16,754	\$ 376,965
TOTAL COMMON STOCK (Cost \$1,575,355)		376,965
TOTAL EQUITIES (Cost \$1,575,355)		376,965
	Principal Amount	
BONDS & NOTES — 114.5%		
BANK LOANS — 2.1%		
Aerospace & Defense — 0.1%		
TransDigm, Inc.		
2020 Term Loan E, 3 mo. USD LIBOR + 2.250%		
6.980% VRN 5/30/25	\$ 289,790	286,374
2020 Term Loan F, 3 mo. USD LIBOR + 2.250%		
6.980% VRN 12/09/25	17,457	17,223
		<u>303,597</u>
Airlines — 0.0%		
American Airlines, Inc., 2021 Term Loan, 3 mo. USD LIBOR + 4.750%		
8.993% VRN 4/20/28	48,698	48,431
United Airlines, Inc., 2021 Term Loan B, 3 mo. USD LIBOR + 3.750%		
8.108% VRN 4/21/28	53,079	52,313
		<u>100,744</u>
Auto Parts & Equipment — 0.0%		
Clarios Global LP, 2021 USD Term Loan B, 1 mo. USD LIBOR + 3.250%		
7.634% VRN 4/30/26	211,302	206,636
Beverages — 0.0%		
Naked Juice LLC, Term Loan, 3 mo. USD SOFR + 3.250%		
7.930% VRN 1/24/29	90,597	80,807
Chemicals — 0.0%		
Zep, Inc., 2017 1st Lien Term Loan, 3 mo. USD LIBOR + 4.000%		
8.580% VRN 8/12/24	257,988	222,128
Commercial Services — 0.1%		
Amentum Government Services Holdings LLC, Term Loan B, 3 mo. USD LIBOR + 4.000%		
8.384% - 8.384% VRN 1/29/27	69,280	67,606

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Element Materials Technology Group US Holdings, Inc. 2022 USD Term Loan, 0.000% 7/06/29 (b)	\$ 48,472	\$ 47,260
2022 USD Delayed Draw Term Loan, 0.000% 7/06/29 (b)	22,372	21,813
Pre-Paid Legal Services, Inc., 2021 Term Loan, 1 mo. USD LIBOR + 3.750% 8.134% VRN 12/15/28	103,808	99,693
Prime Security Services Borrower LLC, 2021 Term Loan, 3 mo. USD LIBOR + 2.750% 7.517% VRN 9/23/26	111,391	110,288
Safe Fleet Holdings LLC, 2022 Term Loan, 1 mo. USD SOFR CME + 3.750% 8.173% VRN 2/23/29	30,916	29,815
Spin Holdco, Inc., 2021 Term Loan, 3 mo. USD LIBOR + 4.000% 7.144% VRN 3/04/28	230,968	193,955
Trans Union LLC 2019 Term Loan B5, 1 mo. USD LIBOR + 1.750% 6.134% VRN 11/16/26	169,938	167,359
2021 Term Loan B6, 1 mo. USD LIBOR + 2.250% 6.634% VRN 12/01/28	69,514	68,741
TruGreen Ltd. Partnership, 2020 Term Loan, 1 mo. USD LIBOR + 4.000% 8.384% VRN 11/02/27	57,193	50,652
		<u>857,182</u>
Computers — 0.0%		
Peraton Corp., Term Loan B, 1 mo. USD LIBOR + 3.750% 8.134% VRN 2/01/28	70,285	68,513
Cosmetics & Personal Care — 0.0%		
Sunshine Luxembourg VII SARL, 2021 Term Loan B3, 3 mo. USD LIBOR + 3.750% 8.480% VRN 10/01/26	115,135	110,082
Diversified Financial Services — 0.1%		
Avolon TLB Borrower 1 (US) LLC, Term Loan B3, 1 mo. USD LIBOR + 1.750% 6.103% VRN 1/15/25	70,325	70,003
Deerfield Dakota Holding LLC, 2020 USD Term Loan B, 1 mo. USD SOFR CME + 3.750% 8.073% VRN 4/09/27	140,955	131,396
Setanta Aircraft Leasing Designated Activity Co., Term Loan B, 3 mo. USD LIBOR + 2.000% 6.730% VRN 11/05/28	700,000	695,450
		<u>896,849</u>
Electronics — 0.0%		
II-VI, Inc., 2022 Term Loan B, 3 mo. USD LIBOR + 2.750% 7.134% VRN 7/02/29	39,084	38,586
Ingram Micro, Inc., 2021 Term Loan B, 3 mo. USD LIBOR + 3.500% 8.230% VRN 6/30/28	127,887	125,649
		<u>164,235</u>
Entertainment — 0.1%		
Crown Finance US, Inc., 2022 DIP Term Loan, 3 mo. USD SOFR CME + 10.000% 14.210% - 14.417% VRN 9/07/23 (b)	324,458	317,868
Formula One Holdings Ltd., Term Loan B, 0.000% 1/15/30 (b)	14,243	14,225

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
J&J Ventures Gaming LLC, Term Loan, 3 mo. USD LIBOR + 4.000% 8.730% VRN 4/26/28	\$ 32,351	\$ 30,896
Penn National Gaming, Inc., 2022 Term Loan B, 1 mo. USD SOFR CME + 2.750% 7.173% VRN 5/03/29	52,934	52,323
Scientific Games International, Inc., 2022 USD Term Loan, 1 mo. USD SOFR + 3.000% 7.417% VRN 4/14/29	107,344	105,619
		520,931
Food — 0.0%		
Hostess Brands LLC, 2019 Term Loan, 1 mo. USD LIBOR + 2.250%, 3 mo. USD LIBOR + 2.250% 6.665% VRN 8/03/25	173,986	173,260
Health Care – Products — 0.1%		
Avantor Funding, Inc., 2021 Term Loan B5, 1 mo. USD LIBOR + 2.250% 6.634% VRN 11/08/27	302,359	300,511
Bausch & Lomb, Inc., Term Loan, 3 mo. USD SOFR CME + 3.250% 7.842% VRN 5/10/27 (b)	83,423	79,200
Medline Borrower LP, USD Term Loan B, 1 mo. USD LIBOR + 3.250% 7.634% VRN 10/23/28	104,213	98,896
		478,607
Home Furnishing — 0.0%		
AI Aqua Merger Sub, Inc. 2022 Delayed Draw Term loan, 1 mo. USD SOFRTE + 4.000%, 3 mo. USD SOFR CME + 3.750% 0.500% VRN 7/31/28 (c)	14,605	13,729
2022 Term Loan B, 3 mo. USD SOFR CME + 3.750% 7.844% VRN 7/31/28	83,980	78,941
		92,670
Insurance — 0.2%		
Acrisure LLC, 2020 Term Loan B, 1 mo. USD LIBOR + 3.500% 7.884% VRN 2/15/27	197,964	185,344
AmWINS Group, Inc., 2021 Term Loan B, 1 mo. USD LIBOR + 2.250% 6.634% VRN 2/19/28	657,945	645,404
Asurion LLC 2020 Term Loan B8, 1 mo. USD LIBOR + 3.250% 7.634% VRN 12/23/26	203,767	181,226
2022 Term Loan B10, 3 mo. USD SOFR CME + 4.000% 8.680% VRN 8/19/28	132,408	117,876
2021 Second Lien Term Loan B4, 1 mo. USD LIBOR + 5.250% 9.634% VRN 1/20/29	37,468	28,957
Hub International Ltd., 2021 Term Loan B, 3 mo. USD LIBOR + 3.250% 7.528% VRN 4/25/25	113,866	112,702
		1,271,509
Internet — 0.1%		
Arches Buyer, Inc., 2021 Term Loan B, 1 mo. USD LIBOR + 3.250% 7.634% VRN 12/06/27	64,917	59,913
NortonLifeLock, Inc., 2022 Term Loan B, 1 mo. USD SOFR CME + 2.000% 6.423% VRN 9/12/29	550,000	539,803

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Proofpoint, Inc., 1st Lien Term Loan, 3 mo. USD LIBOR + 3.250% 7.985% VRN 8/31/28	\$ 9,975	\$ 9,571
		<u>609,287</u>
Lodging — 0.1%		
Caesars Resort Collection LLC, 2020 Term Loan B1, 1 mo. USD LIBOR + 3.500% 7.884% VRN 7/21/25	310,581	309,522
Fertitta Entertainment LLC, 2022 Term Loan B, 1 mo. USD SOFR + 4.000% 8.323% VRN 1/27/29	297,750	<u>282,529</u>
		<u>592,051</u>
Media — 0.1%		
Charter Communications Operating LLC, 2019 Term Loan B2, 1 mo. USD LIBOR + 1.750% 6.140% VRN 2/01/27	96,992	94,585
CSC Holdings LLC, 2017 Term Loan B1, 1 mo. USD LIBOR + 2.250% 6.570% VRN 7/17/25	146,439	138,019
Diamond Sports Group LLC, 2022 2nd Lien Term Loan, 6 mo. USD SOFR CME + 3.50% 8.314% VRN 8/24/26	171,931	20,631
DirecTV Financing LLC, Term Loan, 1 mo. USD LIBOR + 5.000% 9.384% VRN 8/02/27	399,375	387,977
Telenet Financing USD LLC, 2020 USD Term Loan AR, 1 mo. USD LIBOR + 2.000% 6.318% VRN 4/30/28	300,000	<u>291,450</u>
		<u>932,662</u>
Metal Fabricate & Hardware — 0.0%		
AZZ, Inc., Term Loan B, 1 mo. USD SOFR CME + 4.250% 8.673% VRN 5/13/29	23,553	<u>23,524</u>
Packaging & Containers — 0.1%		
Berry Global, Inc., 2021 Term Loan Z, 1 mo. USD LIBOR + 1.750% 6.024% VRN 7/01/26	971,309	<u>962,480</u>
Pharmaceuticals — 0.4%		
Elanco Animal Health, Inc., Term Loan B, 1 mo. USD LIBOR + 1.750% 6.119% VRN 8/01/27	609,681	584,434
Gainwell Acquisition Corp., Term Loan B, 3 mo. USD LIBOR + 4.000% 8.730% VRN 10/01/27	222,727	208,529
Grifols Worldwide Operations USA, Inc., USD 2019 Term Loan B, 1 mo. USD LIBOR + 2.000% 6.384% VRN 11/15/27	723,383	698,368
Horizon Therapeutics USA, Inc., 2021 Term Loan B2, 1 mo. USD LIBOR + 1.750% 6.188% VRN 3/15/28	315,150	314,756
Jazz Financing Lux SARL, USD Term Loan, 1 mo. USD LIBOR + 3.500% 7.884% VRN 5/05/28	384,848	380,938
Organon & Co., USD Term Loan, 3 mo. USD LIBOR + 3.000% 7.750% VRN 6/02/28	461,595	<u>456,402</u>
		<u>2,643,427</u>

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Retail — 0.1%		
1011778 B.C. Unlimited Liability Co., Term Loan B4, 1 mo. USD LIBOR + 1.750%, 3 mo. USD LIBOR + 1.750%		
6.165% VRN 11/19/26	\$ 365,995	\$ 359,133
KFC Holding Co., 2021 Term Loan B, 1 mo. USD LIBOR + 1.750%		
6.089% VRN 3/15/28	101,645	100,248
Whatabrands LLC, 2021 Term Loan B, 1 mo. USD LIBOR + 3.250%		
7.634% VRN 8/03/28	470,250	453,890
		913,271
Semiconductors — 0.0%		
Entegris, Inc., 2022 Term Loan B, 3 mo. USD SOFR + 3.000%		
7.580% VRN 7/06/29	130,000	129,513
Software — 0.1%		
Athenahealth, Inc.		
2022 Delayed Draw Term Loan, 1 mo. USD SOFR CME + 3.500%, 3 mo. USD SOFR CME + 3.500%		
3.500% VRN 2/15/29 (c)	6,289	5,662
2022 Term Loan B, 1 mo. USD SOFR + 3.500%		
7.821% VRN 2/15/29	36,918	33,239
CDK Global, Inc., 2022 USD Term Loan B, 3 mo. USD SOFR + 4.500%		
9.080% VRN 7/06/29	183,478	181,601
DTI Holdco, Inc., 2022 Term Loan, 3 mo. USD SOFR CME + 4.750%		
8.844% VRN 4/26/29	23,022	21,090
Mitnick Corporate Purchaser, Inc., Term Loan, 3 mo. USD SOFR CME + 4.750%		
8.944% VRN 5/02/29	35,910	33,554
Open Text Corp., 2022 Term Loan B,		
0.000% 11/16/29 (b)	49,202	48,009
RealPage, Inc., 1st Lien Term Loan, 1 mo. USD LIBOR + 3.000%		
7.384% VRN 4/24/28	35,819	33,992
Sophia, L.P., 2021 Term Loan B, 3 mo. USD LIBOR + 3.500%		
8.230% VRN 10/07/27	97,908	94,298
		451,445
Telecommunications — 0.4%		
CommScope, Inc., 2019 Term Loan B, 1 mo. USD LIBOR + 3.250%		
7.634% VRN 4/06/26	290,250	272,908
Level 3 Financing, Inc., 2019 Term Loan B, 1 mo. USD LIBOR + 1.750%		
6.134% VRN 3/01/27	1,131,435	1,081,935
SBA Senior Finance II LLC, 2018 Term Loan B, 1 mo. USD LIBOR + 1.750%		
6.140% VRN 4/11/25	477,500	475,380
Zayo Group Holdings, Inc., USD Term Loan, 1 mo. USD LIBOR + 3.000%		
7.384% VRN 3/09/27	837,204	675,799
		2,506,022
Transportation — 0.0%		
Genesee & Wyoming, Inc., Term Loan, 3 mo. USD LIBOR + 2.000%		
6.730% VRN 12/30/26	66,641	66,208
TOTAL BANK LOANS		
(Cost \$15,883,357)		15,377,640

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
CORPORATE DEBT — 29.3%		
Aerospace & Defense — 0.3%		
The Boeing Co.		
1.167% 2/04/23	\$ 1,855,000	\$ 1,847,875
Agriculture — 0.5%		
BAT Capital Corp.		
4.390% 8/15/37	340,000	265,527
4.540% 8/15/47	2,165,000	1,540,340
5.650% 3/16/52	570,000	473,117
Imperial Brands Finance PLC		
3.875% 7/26/29 (d)	50,000	42,749
6.125% 7/27/27 (d)	690,000	687,669
Reynolds American, Inc.		
5.850% 8/15/45	1,160,000	993,684
		<u>4,003,086</u>
Airlines — 0.1%		
U.S. Airways Pass-Through Trust		
7.125% 4/22/25	577,072	579,904
Auto Manufacturers — 0.1%		
Allison Transmission, Inc.		
3.750% 1/30/31 (d)	475,000	390,687
General Motors Co.		
4.875% 10/02/23	150,000	149,527
		<u>540,214</u>
Banks — 10.8%		
Bank of America Corp.		
SOFR + 1.370% 1.922% VRN 10/24/31	925,000	707,516
SOFR + 1.060% 2.087% VRN 6/14/29	1,835,000	1,547,336
SOFR + 1.220% 2.299% VRN 7/21/32	490,000	378,729
SOFR + 1.210% 2.572% VRN 10/20/32	1,300,000	1,021,856
SOFR + 2.150% 2.592% VRN 4/29/31	290,000	236,880
SOFR + 1.320% 2.687% VRN 4/22/32	245,000	196,734
SOFR + 1.330% 2.972% VRN 2/04/33	475,000	384,150
3 mo. USD LIBOR + .810% 3.366% VRN 1/23/26	5,365,000	5,127,404
3 mo. USD LIBOR + 1.070% 3.970% VRN 3/05/29	1,670,000	1,543,578
Bank of New York Mellon Corp. SOFR + 2.074%		
5.834% VRN 10/25/33	715,000	743,680
Citigroup, Inc.		
SOFR + .770% 1.462% VRN 6/09/27	1,225,000	1,063,865
SOFR + 1.167% 2.561% VRN 5/01/32	1,030,000	815,822
SOFR + 2.107% 2.572% VRN 6/03/31	1,070,000	867,976
SOFR + 1.146% 2.666% VRN 1/29/31	430,000	353,680
SOFR + 1.422% 2.976% VRN 11/05/30	500,000	421,560
SOFR + 1.351% 3.057% VRN 1/25/33	2,590,000	2,101,258
SOFR + 1.280% 3.070% VRN 2/24/28	410,000	370,150
SOFR + 3.914% 4.412% VRN 3/31/31	830,000	764,287
Credit Suisse Group AG		
SOFR + .980% 1.305% VRN 2/02/27 (d)	1,315,000	1,050,269
SOFR + 1.730% 3.091% VRN 5/14/32 (d)	1,850,000	1,283,880
SOFR + 3.700% 6.442% VRN 8/11/28 (d)	345,000	314,642
SOFR + 3.920% 6.537% VRN 8/12/33 (d)	4,055,000	3,568,870
SOFR + 5.020% 9.016% VRN 11/15/33 (d)	1,575,000	1,617,362

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Discover Bank		
4.200% 8/08/23	\$ 1,120,000	\$ 1,112,676
DNB Bank ASA 1 year CMT + .680%		
1.605% VRN 3/30/28 (d)	1,400,000	1,186,106
Global Bank Corp. 3 mo. USD LIBOR + 3.300%		
5.250% VRN 4/16/29 (d)	200,000	181,840
The Goldman Sachs Group, Inc.		
SOFR + .486% 0.925% VRN 10/21/24	895,000	859,415
SOFR + .789% 1.093% VRN 12/09/26	485,000	428,532
1.217% 12/06/23	2,245,000	2,167,006
SOFR + .798% 1.431% VRN 3/09/27	2,295,000	2,012,551
SOFR + .913% 1.948% VRN 10/21/27	1,755,000	1,536,587
SOFR + 1.090% 1.992% VRN 1/27/32	315,000	240,314
SOFR + 1.248% 2.383% VRN 7/21/32	950,000	739,611
SOFR + 1.264% 2.650% VRN 10/21/32	465,000	368,412
HSBC Holdings PLC		
SOFR + 1.732% 2.013% VRN 9/22/28	1,370,000	1,146,918
SOFR + 1.929% 2.099% VRN 6/04/26	1,480,000	1,349,449
SOFR + 1.285% 2.206% VRN 8/17/29	1,135,000	921,427
SOFR + 1.187% 2.804% VRN 5/24/32	1,250,000	967,517
SOFR + 2.110% 4.755% VRN 6/09/28	1,080,000	1,022,313
JP Morgan Chase & Co.		
SOFR + .580% 0.697% VRN 3/16/24	440,000	435,388
3 mo. TSFR + .580% 0.969% VRN 6/23/25	2,650,000	2,470,180
SOFR + .605% 1.561% VRN 12/10/25	1,890,000	1,750,726
SOFR + .885% 1.578% VRN 4/22/27	1,360,000	1,196,975
SOFR + 1.180% 2.545% VRN 11/08/32	850,000	674,200
SOFR + 1.250% 2.580% VRN 4/22/32	390,000	313,566
SOFR + 1.510% 2.739% VRN 10/15/30	540,000	454,077
SOFR + 1.170% 2.947% VRN 2/24/28	535,000	485,061
3 mo. USD LIBOR + 1.245% 3.960% VRN 1/29/27	630,000	601,181
Lloyds Banking Group PLC		
1 year CMT + .850% 1.627% VRN 5/11/27	1,000,000	866,569
3 mo. USD LIBOR + 1.205% 3.574% VRN 11/07/28	425,000	383,353
1 year CMT + 3.500% 3.870% VRN 7/09/25	415,000	401,828
1 year CMT + 2.300% 4.976% VRN 8/11/33	995,000	916,311
Macquarie Group Ltd.		
SOFR + 1.069% 1.340% VRN 1/12/27 (d)	920,000	802,691
SOFR + 1.440% 2.691% VRN 6/23/32 (d)	5,000	3,849
SOFR + 1.532% 2.871% VRN 1/14/33 (d)	1,335,000	1,027,733
SOFR + 2.405% 4.442% VRN 6/21/33 (d)	525,000	457,191
Morgan Stanley		
SOFR + .560% 1.164% VRN 10/21/25	2,885,000	2,651,715
SOFR + .879% 1.593% VRN 5/04/27	1,365,000	1,198,838
SOFR + 1.020% 1.928% VRN 4/28/32	1,005,000	760,855
SOFR + 1.178% 2.239% VRN 7/21/32	360,000	276,148
SOFR + 1.360% 2.484% VRN 9/16/36	980,000	713,039
SOFR + 1.200% 2.511% VRN 10/20/32	585,000	457,679
SOFR + 1.290% 2.943% VRN 1/21/33	895,000	726,557
Natwest Group PLC 3 mo. USD LIBOR + 1.762%		
4.269% VRN 3/22/25	1,710,000	1,672,719
PNC Financial Services Group, Inc. SOFR + 2.140%		
6.037% VRN 10/28/33	705,000	736,448
Santander UK Group Holdings PLC		
SOFR + .787% 1.089% VRN 3/15/25	1,825,000	1,705,677
1 year CMT + 1.250% 1.532% VRN 8/21/26	295,000	260,084

SOFR + .989% 1.673% VRN 6/14/27	340,000	289,484
SOFR + 1.220% 2.469% VRN 1/11/28	285,000	243,706

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
3 mo. USD LIBOR + 1.570% 4.796% VRN 11/15/24	\$ 525,000	\$ 516,295
Santander UK PLC		
5.000% 11/07/23 (d)	1,390,000	1,385,741
UBS Group AG Registered 1 year CMT + 1.550%		
4.488% VRN 5/12/26 (d)	445,000	435,255
US Bancorp SOFR + 2.090%		
5.850% VRN 10/21/33	715,000	744,786
Wells Fargo & Co.		
SOFR + 2.100% 2.393% VRN 6/02/28	1,710,000	1,511,526
SOFR + 1.500% 3.350% VRN 3/02/33	3,750,000	3,170,115
SOFR + 1.510% 3.526% VRN 3/24/28	1,800,000	1,669,001
3 mo. USD LIBOR + 1.310% 3.584% VRN 5/22/28	1,345,000	1,250,676
SOFR + 2.100% 4.897% VRN 7/25/33	1,025,000	970,544
		<u>79,309,925</u>
Beverages — 0.4%		
Anheuser-Busch Cos. LLC/Anheuser-Busch InBev Worldwide, Inc.		
4.900% 2/01/46	2,215,000	2,030,125
Bacardi Ltd.		
5.300% 5/15/48 (d)	275,000	245,850
Constellation Brands, Inc.		
2.250% 8/01/31	845,000	673,479
		<u>2,949,454</u>
Chemicals — 0.2%		
International Flavors & Fragrances, Inc.		
2.300% 11/01/30 (d)	1,685,000	1,340,978
5.000% 9/26/48	430,000	367,552
SK Invictus Intermediate II Sarl		
5.000% 10/30/29 (d)	80,000	65,600
		<u>1,774,130</u>
Commercial Services — 0.3%		
Global Payments, Inc.		
5.400% 8/15/32	365,000	348,919
5.950% 8/15/52	495,000	447,406
Rent-A-Center, Inc.		
6.375% 2/15/29 (d)	85,000	68,761
S&P Global, Inc.		
2.900% 3/01/32 (d)	415,000	355,139
4.750% 8/01/28 (d)	750,000	742,413
WASH Multifamily Acquisition, Inc.		
5.750% 4/15/26 (d)	85,000	80,112
		<u>2,042,750</u>
Computers — 0.1%		
Lenovo Group Ltd.		
6.536% 7/27/32 (d)	370,000	357,885
NCR Corp.		
5.125% 4/15/29 (d)	175,000	146,396
5.250% 10/01/30 (d)	90,000	74,250
		<u>578,531</u>

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Diversified Financial Services — 1.2%		
AerCap Ireland Capital DAC / AerCap Global Aviation Trust		
3.300% 1/30/32	\$ 2,270,000	\$ 1,781,206
3.875% 1/23/28	265,000	238,707
4.125% 7/03/23	220,000	218,457
Air Lease Corp.		
3.250% 3/01/25	950,000	900,870
5.850% 12/15/27	905,000	904,592
Avolon Holdings Funding Ltd.		
2.528% 11/18/27 (d)	1,109,000	887,822
2.875% 2/15/25 (d)	45,000	41,550
3.950% 7/01/24 (d)	380,000	364,029
4.375% 5/01/26 (d)	815,000	738,989
Capital One Financial Corp. SOFR + 1.790%		
3.273% VRN 3/01/30	1,160,000	993,874
The Charles Schwab Corp.		
1.950% 12/01/31	445,000	349,260
Discover Financial Services		
3.950% 11/06/24	150,000	146,096
ORIX Corp.		
5.200% 9/13/32	745,000	728,612
Park Aerospace Holdings Ltd.		
4.500% 3/15/23 (d)	700,000	698,273
5.500% 2/15/24 (d)	75,000	74,044
		<u>9,066,381</u>
Electric — 1.5%		
Ameren Illinois Co.		
3.700% 12/01/47	480,000	382,815
Consolidated Edison Co. of New York, Inc.		
4.650% 12/01/48	1,000,000	877,172
Duke Energy Carolinas LLC		
3.700% 12/01/47	738,000	569,122
Duke Energy Corp.		
3.750% 9/01/46	471,000	351,789
Entergy Louisiana LLC		
3.780% 4/01/25	1,250,000	1,200,926
Eversource Energy		
4.600% 7/01/27	735,000	725,067
FirstEnergy Transmission LLC		
2.866% 9/15/28 (d)	1,401,000	1,224,062
5.450% 7/15/44 (d)	600,000	561,433
Florida Power & Light Co.		
3.990% 3/01/49	1,000,000	844,654
Metropolitan Edison Co.		
4.000% 4/15/25 (d)	985,000	943,067
MidAmerican Energy Co.		
4.400% 10/15/44	1,905,000	1,692,764
Mong Duong Finance Holdings BV		
5.125% 5/07/29 (d)	250,000	207,520
NextEra Energy Capital Holdings, Inc.		
4.625% 7/15/27	925,000	910,952
Southwestern Electric Power Co.		
3.250% 11/01/51	425,000	281,685
		<u>10,773,028</u>

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
Engineering & Construction — 0.1%		
Artera Services LLC		
9.033% 12/04/25 (d)	\$ 257,000	\$ 214,104
Heathrow Funding Ltd.		
1.875% 3/14/36 EUR (d) (e)	895,000	690,392
		<u>904,496</u>
Entertainment — 0.5%		
Caesars Entertainment, Inc.		
8.125% 7/01/27 (d) (f)	250,000	245,637
Warnermedia Holdings, Inc.		
5.050% 3/15/42 (d)	1,760,000	1,353,123
5.141% 3/15/52 (d)	3,001,000	2,192,282
		<u>3,791,042</u>
Environmental Controls — 0.0%		
Waste Pro USA, Inc.		
5.500% 2/15/26 (d)	400,000	353,240
Food — 0.6%		
JBS USA LUX SA/JBS USA Food Co./JBS USA Finance, Inc.		
3.000% 2/02/29 (d)	730,000	603,753
3.000% 5/15/32 (d)	410,000	313,691
6.500% 12/01/52 (d)	900,000	856,410
Kraft Heinz Foods Co.		
4.875% 10/01/49	815,000	709,686
5.200% 7/15/45	750,000	695,149
Pilgrim's Pride Corp.		
3.500% 3/01/32 (d)	500,000	391,250
5.875% 9/30/27 (d)	75,000	72,748
Post Holdings, Inc.		
5.750% 3/01/27 (d)	525,000	507,717
Simmons Foods, Inc. /Simmons Prepared Foods, Inc. /Simmons Pet Food, Inc. /Simmons Feed		
4.625% 3/01/29 (d)	400,000	325,621
		<u>4,476,025</u>
Gas — 0.2%		
KeySpan Gas East Corp.		
5.819% 4/01/41 (d)	1,337,000	1,293,907
Health Care – Services — 1.7%		
Aetna, Inc.		
3.500% 11/15/24	500,000	486,281
Centene Corp.		
2.450% 7/15/28	1,951,000	1,645,127
4.250% 12/15/27	590,000	553,877
CommonSpirit Health		
2.782% 10/01/30	455,000	376,255
3.347% 10/01/29	1,200,000	1,047,741
HCA, Inc.		
2.375% 7/15/31	230,000	179,644
3.500% 9/01/30	859,000	743,114
4.125% 6/15/29	1,262,000	1,154,955
5.125% 6/15/39	650,000	584,625
5.250% 4/15/25	644,000	640,720

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
5.250% 6/15/49	\$ 485,000	\$ 415,341
5.375% 9/01/26	590,000	583,965
5.500% 6/15/47	775,000	690,859
Humana, Inc.		
3.700% 3/23/29	2,050,000	1,880,466
ModivCare Escrow Issuer, Inc.		
5.000% 10/01/29 (d)	425,000	358,403
Molina Healthcare, Inc.		
3.875% 11/15/30 (d)	417,000	353,382
3.875% 5/15/32 (d)	850,000	705,873
		<u>12,400,628</u>
Household Products & Wares — 0.0%		
Central Garden & Pet Co.		
5.125% 2/01/28	22,000	<u>20,466</u>
Insurance — 1.5%		
Alliant Holdings Intermediate LLC/Alliant Holdings Co-Issuer		
6.750% 10/15/27 (d)	90,000	80,897
Aon Corp. / Aon Global Holdings PLC		
3.900% 2/28/52	845,000	650,224
AssuredPartners, Inc.		
5.625% 1/15/29 (d)	80,000	65,843
Athene Global Funding		
1.985% 8/19/28 (d)	2,200,000	1,773,459
3.205% 3/08/27 (d)	445,000	397,097
Farmers Exchange Capital		
3 mo. USD LIBOR + 3.454% 5.454% VRN 10/15/54 (d)	3,290,000	3,012,818
3 mo. USD LIBOR + 3.744% 6.151% VRN 11/01/53 (d)	350,000	335,693
Marsh & McLennan Cos., Inc.		
5.750% 11/01/32	545,000	571,470
Teachers Insurance & Annuity Association of America 3 mo. USD LIBOR + 2.661%		
4.375% VRN 9/15/54 (d)	4,000,000	<u>3,827,589</u>
		<u>10,715,090</u>
Internet — 0.2%		
Gen Digital, Inc.		
6.750% 9/30/27 (d)	400,000	392,000
Tencent Holdings Ltd.		
3.680% 4/22/41 (d)	455,000	336,526
3.840% 4/22/51 (d)	455,000	324,792
3.975% 4/11/29 (d)	410,000	378,722
		<u>1,432,040</u>
Lodging — 0.1%		
Hyatt Hotels Corp.		
1.800% 10/01/24	930,000	<u>871,730</u>
Machinery – Diversified — 0.0%		
OT Merger Corp.		
7.875% 10/15/29 (d)	125,000	<u>66,250</u>
Media — 0.8%		
Cable One, Inc.		
4.000% 11/15/30 (d) (f)	1,085,000	851,417
Charter Communications Operating LLC/Charter Communications Operating Capital		

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
3.750% 2/15/28	\$ 500,000	\$ 451,836
4.800% 3/01/50	375,000	272,985
4.908% 7/23/25	1,105,000	1,083,893
5.250% 4/01/53	250,000	194,241
5.375% 4/01/38	5,000	4,169
5.375% 5/01/47	180,000	141,947
5.750% 4/01/48	1,088,000	896,929
CSC Holdings LLC		
5.375% 2/01/28 (d)	150,000	120,938
6.500% 2/01/29 (d)	1,033,000	844,477
7.500% 4/01/28 (d)	80,000	54,200
Diamond Sports Group LLC / Diamond Sports Finance Co.		
5.375% 8/15/26 (d)	1,175,000	138,063
Time Warner Cable, Inc.		
5.500% 9/01/41	370,000	308,137
5.875% 11/15/40	360,000	315,209
		<u>5,678,441</u>
Oil & Gas — 0.5%		
KazMunay Gas National Co.		
4.750% 4/19/27 (d)	200,000	184,200
Occidental Petroleum Corp.		
0.000% 10/10/36	115,000	57,429
4.500% 7/15/44	400,000	317,573
Pertamina Persero PT		
3.100% 8/27/30 (d)	875,000	752,184
Petroleos Mexicanos		
6.625% 6/15/35	2,100,000	1,524,391
7.690% 1/23/50	295,000	204,144
Petronas Capital Ltd.		
3.500% 4/21/30 (d)	200,000	182,316
Saudi Arabian Oil Co.		
1.625% 11/24/25 (d)	200,000	182,163
Transocean Guardian Ltd.		
5.875% 1/15/24 (d)	184,550	180,214
Transocean Poseidon Ltd.		
6.875% 2/01/27 (d)	203,875	198,395
		<u>3,783,009</u>
Oil & Gas Services — 0.1%		
Transocean Proteus Ltd.		
6.250% 12/01/24 (d)	348,400	343,200
USA Compression Partners LP/USA Compression Finance Corp.		
6.875% 4/01/26	70,000	67,150
		<u>410,350</u>
Packaging & Containers — 0.2%		
Berry Global, Inc.		
1.650% 1/15/27	85,000	72,801
4.875% 7/15/26 (d)	585,000	562,400
Mauser Packaging Solutions Holding Co.		
5.500% 4/15/24 (d)	70,000	68,056
Sealed Air Corp.		
1.573% 10/15/26 (d)	1,200,000	1,037,547

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Trivium Packaging Finance BV 8.500% 8/15/27 (d)	\$ 75,000	\$ 68,814
		1,809,618
Pharmaceuticals — 1.3%		
AbbVie, Inc. 4.450% 5/14/46	695,000	601,090
4.500% 5/14/35	234,000	217,386
4.550% 3/15/35	576,000	541,026
Bayer US Finance II LLC 4.375% 12/15/28 (d)	3,281,000	3,093,131
4.625% 6/25/38 (d)	1,310,000	1,141,638
4.875% 6/25/48 (d)	220,000	191,173
Becton Dickinson and Co. 2.823% 5/20/30	1,735,000	1,493,244
Cigna Corp. 3.400% 3/15/51	210,000	149,913
CVS Health Corp. 5.050% 3/25/48	2,360,000	2,128,936
Embecta Corp. 5.000% 2/15/30 (d)	425,000	359,656
		9,917,193
Pipelines — 1.0%		
Energy Transfer LP 4.950% 6/15/28	1,201,000	1,163,382
5.350% 5/15/45	370,000	315,361
5.400% 10/01/47	1,275,000	1,077,831
5.500% 6/01/27	264,000	262,513
5.950% 10/01/43	750,000	696,432
6.250% 4/15/49	105,000	98,250
Galaxy Pipeline Assets Bidco Ltd. 2.160% 3/31/34 (d)	369,864	314,241
Kinder Morgan, Inc. 5.550% 6/01/45	565,000	517,359
Plains All American Pipeline LP/PAA Finance Corp. 3.550% 12/15/29	228,000	198,258
Rockies Express Pipeline LLC 4.950% 7/15/29 (d)	1,000,000	897,350
6.875% 4/15/40 (d)	745,000	625,491
Sabine Pass Liquefaction LLC 4.500% 5/15/30	615,000	571,561
Southern Gas Corridor CJSC 6.875% 3/24/26 (d)	400,000	409,528
		7,147,557
Real Estate — 0.0%		
Vonovia SE 1.500% 6/14/41 EUR (d) (e)	200,000	118,606
Real Estate Investment Trusts (REITS) — 1.9%		
Alexandria Real Estate Equities, Inc. 1.875% 2/01/33	480,000	358,401
American Assets Trust LP 3.375% 2/01/31	865,000	688,217

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
American Homes Rent 3.625% 4/15/32	\$ 1,650,000	\$ 1,392,723
CapLand Ascendas REIT 0.750% 6/23/28 EUR (d) (e)	445,000	370,424
CubeSmart LP 2.000% 2/15/31	730,000	551,760
Extra Space Storage LP 2.350% 3/15/32	1,075,000	816,396
GLP Capital LP/GLP Financing II, Inc. 4.000% 1/15/30	60,000	52,549
5.250% 6/01/25	600,000	589,368
5.300% 1/15/29	620,000	586,638
5.375% 4/15/26	1,820,000	1,786,017
Healthcare Realty Holdings LP 2.000% 3/15/31 (f)	275,000	208,458
2.050% 3/15/31	71,000	52,072
2.400% 3/15/30	615,000	481,306
3.100% 2/15/30	825,000	690,967
3.625% 1/15/28	157,000	139,435
Hudson Pacific Properties LP 4.650% 4/01/29	1,185,000	1,014,810
Invitation Homes Operating Partnership LP 2.000% 8/15/31	145,000	107,525
4.150% 4/15/32	670,000	588,163
Life Storage LP 2.400% 10/15/31	925,000	714,066
Physicians Realty LP 2.625% 11/01/31	465,000	364,201
VICI Properties LP 3.750% 2/15/27 (d)	60,000	54,465
3.875% 2/15/29 (d)	485,000	427,063
4.500% 9/01/26 (d)	240,000	226,061
4.500% 1/15/28 (d)	135,000	123,880
4.625% 6/15/25 (d)	65,000	62,319
5.125% 5/15/32	790,000	731,500
5.625% 5/15/52	403,000	356,482
5.750% 2/01/27 (d)	255,000	248,559
		<u>13,783,825</u>
Retail — 0.1%		
Fertitta Entertainment LLC/Fertitta Entertainment Finance Co., Inc. 6.750% 1/15/30 (d)	85,000	68,561
The Michaels Cos., Inc. 5.250% 5/01/28 (d)	556,000	447,319
7.875% 5/01/29 (d)	339,000	226,509
Papa John's International, Inc. 3.875% 9/15/29 (d) (f)	233,000	194,555
		<u>936,944</u>
Savings & Loans — 0.3%		
Nationwide Building Society SOFR + 1.290% 2.972% VRN 2/16/28 (d)	720,000	633,770
3 mo. USD LIBOR + 1.064% 3.766% VRN 3/08/24 (d)	1,215,000	1,208,397
3 mo. USD LIBOR + 1.392% 4.363% VRN 8/01/24 (d)	300,000	296,122
		<u>2,138,289</u>

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
Semiconductors — 0.1%		
Broadcom, Inc.		
2.600% 2/15/33 (d)	\$ 412,000	\$ 310,536
3.419% 4/15/33 (d)	420,000	337,859
		<u>648,395</u>
Software — 0.5%		
Open Text Corp.		
6.900% 12/01/27 (d)	125,000	125,000
Oracle Corp.		
2.875% 3/25/31	115,000	95,685
3.800% 11/15/37	200,000	159,134
3.950% 3/25/51	2,078,000	1,489,882
6.900% 11/09/52	710,000	766,321
Take-Two Interactive Software, Inc.		
4.000% 4/14/32	810,000	719,541
		<u>3,355,563</u>
Telecommunications — 2.1%		
AT&T, Inc.		
3.800% 12/01/57	3,110,000	2,162,762
4.500% 5/15/35	110,000	100,167
4.750% 5/15/46	100,000	85,094
4.850% 3/01/39	366,000	329,993
5.250% 3/01/37	850,000	825,148
Intelsat Jackson Holdings S.A.		
6.500% 3/15/30 (d)	1,440,000	1,287,346
Intelsat Jackson Holdings S.A., Escrow		
8.500% 10/15/24 (a) (d) (g) (h)	378,000	—
9.750% 7/15/25 (a) (d) (g) (h)	1,379,000	—
Level 3 Financing, Inc.		
3.400% 3/01/27 (d)	328,000	277,690
3.875% 11/15/29 (d)	230,000	181,501
Sprint Spectrum Co. LLC/Sprint Spectrum Co. II LLC/Sprint Spectrum Co. III LLC		
4.738% 3/20/25 (d)	1,937,813	1,915,725
5.152% 9/20/29 (d)	2,015,000	1,987,576
T-Mobile USA, Inc.		
2.250% 2/15/26	1,217,000	1,106,678
2.550% 2/15/31	955,000	783,022
3.750% 4/15/27	1,270,000	1,197,830
3.875% 4/15/30	580,000	526,762
4.375% 4/15/40	840,000	720,802
Verizon Communications, Inc.		
2.550% 3/21/31	410,000	337,743
Vodafone Group PLC		
4.875% 6/19/49	1,260,000	1,062,152
5.250% 5/30/48	1,000,000	886,081
		<u>15,774,072</u>
TOTAL CORPORATE DEBT (Cost \$243,979,588)		<u>215,292,054</u>
MUNICIPAL OBLIGATIONS — 0.3%		
City of New York NY, General Obligation		
3.000% 8/01/34	945,000	760,859

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
County of Miami-Dade FL Aviation Revenue, Revenue Bond 2.707% 10/01/33	\$ 375,000	\$ 294,134
New York State Dormitory Authority, Revenue Bond 5.628% 3/15/39	860,000	882,055
University of Michigan, Revenue Bond 3.504% 4/01/52	335,000	261,321
		<u>2,198,369</u>
TOTAL MUNICIPAL OBLIGATIONS (Cost \$2,639,569)		<u>2,198,369</u>
NON-U.S. GOVERNMENT AGENCY OBLIGATIONS — 16.6%		
Commercial Mortgage-Backed Securities — 2.6%		
BAMLL Commercial Mortgage Securities Trust		
Series 2019-BPR, Class AMP, 3.287% 11/05/32 (d)	1,920,000	1,725,173
Series 2018-PARK, Class A, 4.091% VRN 8/10/38 (d) (i)	1,280,000	1,157,540
BX Commercial Mortgage Trust		
Series 2019-XL, Class A, 1 mo. TSFR + 1.034% 5.370% FRN 10/15/36 (d)	2,330,986	2,298,996
Series 2022-CSMO, Class A, 1 mo. TSFR + 2.115% 6.450% FRN 6/15/27 (d)	1,641,000	1,628,699
BX Trust		
Series 2019-OC11, Class A, 3.202% 12/09/41 (d)	420,000	353,506
Series 2022-VAMF, Class C, 1 mo. TSFR + 1.580% 5.916% FRN 1/15/39 (d)	1,057,000	1,001,557
Series 2022-PSB, Class D, 1 mo. TSFR + 4.693% 9.029% FRN 8/15/39 (d)	1,324,674	1,317,460
CALI Mortgage Trust, Series 2019-101C, Class A 3.957% 3/10/39 (d)	945,000	818,018
CPT Mortgage Trust, Series 2019-CPT, Class A 2.865% 11/13/39 (d)	805,000	645,546
DC Office Trust, Series 2019-MTC, Class A 2.965% 9/15/45 (d)	860,000	706,949
Hudson Yards Mortgage Trust		
Series 2019-55HY, Class A, 2.943% VRN 12/10/41 (d) (i)	860,000	725,110
Series 2019-30HY, Class A, 3.228% 7/10/39 (d)	880,000	756,493
JP Morgan Chase Commercial Mortgage Securities Trust		
Series 2019-OSB, Class A, 3.397% 6/05/39 (d)	900,000	786,094
Series 2021-HTL5, Class A, 1 mo. USD LIBOR + 1.115% 5.433% FRN 11/15/38 (d)	2,138,000	2,044,552
MKT Mortgage Trust, Series 2020-525M, Class A 2.694% 2/12/40 (d)	570,000	448,713
One Bryant Park Trust, Series 2019-OBP, Class A 2.516% 9/15/54 (d)	1,085,000	891,889
RBS Commercial Funding, Inc. Trust, Series 2013-GSP, Class A, 3.834% VRN 1/15/32 (d) (i)	640,000	610,034
SFAVE Commercial Mortgage Securities Trust, Series 2015-5AVE, Class A2B, 4.144% VRN 1/05/43 (d) (i)	50,000	33,867
TTAN, Series 2021-MHC, Class E, 1 mo. USD LIBOR + 2.400% 6.718% FRN 3/15/38 (d)	1,332,220	1,254,046
		<u>19,204,242</u>
Home Equity Asset-Backed Securities — 0.8%		
Argent Securities, Inc., Series 2005-W2, Class M1, 1 mo. USD LIBOR + .735% 5.124% FRN 10/25/35	1,947,374	1,866,139

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Morgan Stanley Capital, Inc. Trust, Series 2006-HE1, Class A4, 1 mo. USD LIBOR + .580% 4.969% FRN 1/25/36	\$ 1,953,462	\$ 1,881,822
Option One Mortgage Loan Trust, Series 2006-3, Class 1A1, 1 mo. USD LIBOR + .140% 4.529% FRN 2/25/37	3,625,138	2,330,096
		6,078,057
Other Asset-Backed Securities — 4.5%		
AGL CLO Ltd., Series 2021-13A, Class A1, 3 mo. USD LIBOR + 1.160% 5.403% FRN 10/20/34 (d)	2,400,000	2,340,722
AIG CLO Ltd., Series 2019-2A, Class BR, 3 mo. USD LIBOR + 1.600% 5.958% FRN 10/25/33 (d)	2,400,000	2,306,974
Aimco CLO Ltd., Series 2020-11A, Class AR, 3 mo. USD LIBOR + 1.130% 5.209% FRN 10/17/34 (d)	2,075,000	2,019,824
Arbor Realty Commercial Real Estate Notes Ltd., Series 2021-FL3, Class A, 1 mo. USD LIBOR + 1.070% 5.388% FRN 8/15/34 (d)	2,018,000	1,911,326
Barings CLO Ltd., Series 2013-IA, Class AR, 3 mo. USD LIBOR + .800% 5.043% FRN 1/20/28 (d)	2,403,097	2,385,333
Countrywide Asset-Backed Certificates Trust Series 2007-7, Class 1A, 1 mo. USD LIBOR + .200% 4.589% FRN 10/25/47	2,956,546	2,807,395
Series 2004-5, Class M1, 1 mo. USD LIBOR + .855% 5.244% FRN 8/25/34	122,120	120,462
First Franklin Mortgage Loan Trust, Series 2005-FF9, Class A4, 1 mo. USD LIBOR + .720% 5.109% FRN 10/25/35	53,772	53,696
Flatiron CLO Ltd., Series 2021-1A, Class B, 3 mo. USD LIBOR + 1.600% 5.827% FRN 7/19/34 (d)	2,400,000	2,291,933
GoldenTree Loan Opportunities Ltd., Series 2014-9A, Class AR2, 3 mo. USD LIBOR + 1.110% 5.525% FRN 10/29/29 (d)	1,979,321	1,964,038
GSAMP Trust, Series 2006-HE1, Class M1, 1 mo. USD LIBOR + .585% 4.974% FRN 1/25/36	767,679	759,930
LCM Ltd., Series 19A, Class AR, 3 mo. USD LIBOR + 1.240% 5.319% FRN 7/15/27 (d)	301,836	300,674
Magnetite Ltd., Series 2012-7A, Class A1R2, 3 mo. USD LIBOR + .800% 4.879% FRN 1/15/28 (d)	1,358,588	1,341,246
Morgan Stanley Capital, Inc. Trust, Series 2006-NC2, Class A2D, 1 mo. USD LIBOR + .580% 4.969% FRN 2/25/36	1,722,933	1,677,089
New Economy Assets Phase 1 Sponsor LLC, Series 2021-1, Class A1 1.910% 10/20/61 (d)	1,646,000	1,392,591
Progress Residential Trust Series 2021-SFR8, Class C, 1.931% 10/17/38 (d)	2,500,000	2,082,878
Series 2020-SFR3, Class F, 2.796% 10/17/27 (d)	860,000	748,592
Series 2021-SFR10, Class F, 4.608% 12/17/40 (d)	1,159,731	934,090
Rockford Tower Ltd., Series 2019-1A, Class AR, 3 mo. USD LIBOR + 1.120% 5.363% FRN 4/20/34 (d)	2,435,000	2,361,383
TRTX Issuer Ltd., Series 2019-FL3, Class A, 1 mo. TSFR + 1.264% 5.590% FRN 10/15/34 (d)	431,088	431,087
VOLT CIII LLC, Series 2021-CF1, Class A1, 1.992% STEP 8/25/51 (d)	2,687,829	2,410,841
		32,642,104

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Student Loans Asset-Backed Securities — 2.3%		
Access Group, Inc., Series 2015-1, Class A, 1 mo. USD LIBOR + .700%		
5.089% FRN 7/25/56 (d)	\$ 1,296,729	\$ 1,237,895
Education Loan Asset-Backed Trust, Series 2013-1, Class A2, 1 mo. USD LIBOR + .800%		
5.189% FRN 4/26/32 (d)	2,059,279	2,035,652
Nelnet Student Loan Trust, Series 2006-1, Class A6, 3 mo. USD LIBOR + .450%		
5.142% FRN 8/23/36 (d)	1,723,227	1,675,914
SLM Student Loan Trust		
Series 2014-1, Class A3, 1 mo. USD LIBOR + .600% 4.989% FRN 2/26/29	1,338,987	1,275,482
Series 2012-7, Class A3, 1 mo. USD LIBOR + .650% 5.039% FRN 5/26/26	2,293,958	2,200,135
Series 2008-5, Class B, 3 mo. USD LIBOR + 1.850% 6.208% FRN 7/25/73	3,735,000	3,538,376
Series 2008-9, Class B, 3 mo. USD LIBOR + 2.250% 6.608% FRN 10/25/83	3,630,000	3,403,976
Wachovia Student Loan Trust, Series 2006-1, Class A6, 3 mo. USD LIBOR + .170%		
4.528% FRN 4/25/40 (d)	1,764,871	1,684,659
		<u>17,052,089</u>
Whole Loan Collateral Collateralized Mortgage Obligations — 6.4%		
Ajax Mortgage Loan Trust		
Series 2019-,Class A1, 2.860% STEP 7/25/59 (d)	1,866,853	1,721,927
Series 2022-B, Class A1, 3.500% STEP 3/27/62 (d)	3,061,214	2,800,179
American Home Mortgage Investment Trust, Series 2006-1, Class 12A1, 1 mo. USD LIBOR + .		
400%		
4.789% FRN 3/25/46	1,481,927	1,230,265
Bear Stearns Trust, Series 2005-4, Class 25A1,		
3.245% VRN 5/25/35 (i)	655,188	585,824
BINOM Securitization Trust, Series 2022-RPL1, Class A1,		
3.000% VRN 2/25/61 (d) (i)	2,881,562	2,573,704
CIM Trust, Series 2021-J3, Class A1,		
2.500% VRN 6/25/51 (d) (i)	4,550,432	3,655,632
Citigroup Mortgage Loan Trust, Series 2006-AR2, Class 1A2,		
2.968% VRN 3/25/36 (i)	2,554	2,321
Credit Suisse Mortgage Trust, Series 2018-RPL9, Class A,		
3.850% VRN 9/25/57 (d) (i)	1,612,633	1,484,330
First Horizon Alternative Mortgage Securities Trust, Series 2005-AA9, Class 2A1,		
4.042% VRN 11/25/35 (i)	1,331,397	1,126,798
GS Mortgage-Backed Securities Trust, Series 2022-PJ6 , Class A4,		
3.000% VRN 1/25/53 (d) (i)	4,257,714	3,566,817
HarborView Mortgage Loan Trust		
Series 2006-10, Class 1A1A, 1 mo. USD LIBOR + .200% 4.539% FRN 11/19/36	2,656,475	2,082,988
Series 2007-6, Class 1A1A, 1 mo. USD LIBOR + .200% 4.539% FRN 8/19/37	2,453,853	2,017,974
HomeBanc Mortgage Trust, Series 2005-5, Class A1, 1 mo. USD LIBOR + .520%		
4.909% FRN 1/25/36	2,092,295	1,974,005
JP Morgan Mortgage Trust		
Series 2021-13, Class A3, 2.500% VRN 4/25/52 (d) (i)	3,867,756	3,116,867
Series 2005-A5, Class 1A2, 3.337% VRN 8/25/35 (i)	82,880	78,316
MASTR Adjustable Rate Mortgages Trust, Series 2004-3, Class 4A1,		
2.690% VRN 4/25/34 (i)	479,204	421,692
Preston Ridge Partners Mortgage		
Series 2021-5, Class A1, 1.793% STEP 6/25/26 (d)	3,773,665	3,398,440

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2021-6, Class A1, 1.793% STEP 7/25/26 (d)	\$ 1,699,823	\$ 1,524,359
Series 2022-1, Class A1, 3.720% STEP 2/25/27 (d)	3,696,505	3,422,341
Series 2022-4, Class A1, 5.000% STEP 8/25/27 (d) (i)	876,487	824,873
RALI Trust, Series 2006-QA7, Class 2A1, 1 mo. USD LIBOR + .370%		
4.759% FRN 8/25/36	512,414	440,118
Residential Asset Securitization Trust, Series 2006-A14C, Class 1A1		
6.250% 12/25/36	1,909,736	1,431,354
Structured Asset Mortgage Investments Trust, Series 2006-AR1, Class 3A1, 1 mo. USD LIBOR		
+ .460%		
4.849% FRN 2/25/36	1,485,070	1,150,866
Washington Mutual Mortgage Pass-Through Certificates, Series 2005-AR2, Class 2A1A, 1		
mo. USD LIBOR + .620%		
5.009% FRN 1/25/45	486,548	459,163
Washington Mutual Mortgage Pass-Through Certificates Trust		
Series 2006-AR12, Class 1A4 3.801% 10/25/36	4,027,280	3,470,150
Series 2005-7, Class 4CB, 7.000% 8/25/35	2,565,176	1,940,925
Wells Fargo Mortgage-Backed Securities Trust, Series 2007-AR3, Class A4,		
2.892% VRN 4/25/37 (i)	812,314	713,829
		<u>47,216,057</u>

TOTAL NON-U.S. GOVERNMENT AGENCY OBLIGATIONS
(Cost \$129,851,707)
122,192,549**SOVEREIGN DEBT OBLIGATIONS — 1.0%**

Colombia Government International Bond		
8.000% 4/20/33	200,000	<u>200,532</u>
Abu Dhabi Government International Bond		
2.500% 9/30/29 (d)	647,000	579,834
Brazilian Government International Bond		
3.875% 6/12/30 (f)	730,000	633,628
Chile Government International Bond		
2.450% 1/31/31 (f)	200,000	165,900
2.550% 1/27/32 (f)	400,000	327,310
Colombia Government International Bond		
3.000% 1/30/30	200,000	152,953
3.125% 4/15/31	200,000	148,498
4.500% 1/28/26	200,000	187,970
Dominican Republic International Bond		
4.500% 1/30/30 (d)	440,000	374,387
Egypt Government International Bond		
7.600% 3/01/29 (d)	200,000	162,470
Hungary Government International Bond		
2.125% 9/22/31 (d)	250,000	185,165
Indonesia Government International Bond		
2.850% 2/14/30	300,000	266,286
Mexico Government International Bond		
2.659% 5/24/31	413,000	332,295
3.750% 1/11/28	420,000	396,257
4.750% 4/27/32 (f)	200,000	186,794
Oman Government International Bond		
5.625% 1/17/28 (d)	200,000	197,212
Panama Government International Bond		
2.252% 9/29/32	200,000	148,108
3.160% 1/23/30	625,000	537,474
Peruvian Government International Bond		

2.844% 6/20/30
4.125% 8/25/27

200,000	168,709
254,000	242,959

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Philippine Government International Bond 2.457% 5/05/30	\$ 200,000	\$ 173,525
Qatar Government International Bond 4.500% 4/23/28 (d)	600,000	603,264
Republic of Poland Government International Bond 5.750% 11/16/32	43,000	45,757
Republic of South Africa Government International Bond 4.850% 9/30/29 (f)	200,000	178,000
4.875% 4/14/26	200,000	193,308
5.875% 4/20/32	200,000	180,000
Republic of Turkey International Bond 3.250% 3/23/23	200,000	199,629
Romanian Government International Bond 3.000% 2/14/31 (d)	270,000	212,150
Saudi Government International Bond 3.625% 3/04/28 (d)	200,000	190,746
		<u>7,370,588</u>
TOTAL SOVEREIGN DEBT OBLIGATIONS (Cost \$8,782,685)		<u>7,571,120</u>
U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (j) — 38.6%		
Collateralized Mortgage Obligations — 0.7%		
Federal Home Loan Mortgage Corp. Multifamily Structured Pass-Through Certificates Series K155, Class A3 3.750% 4/25/33	2,115,000	1,982,694
Federal National Mortgage Association REMICS Series 2018-43, Class CT, 3.000% 6/25/48	568,489	506,333
Series 2018-55, Class PA, 3.500% 1/25/47	449,090	435,028
Series 2018-54, Class KA, 3.500% 1/25/47	432,766	419,216
Series 2018-38, Class PA, 3.500% 6/25/47	670,519	640,869
Government National Mortgage Association Series 2018-124, Class NW, 3.500% 9/20/48	531,770	495,853
Series 2019-15, Class GT, 3.500% 2/20/49	580,906	541,962
		<u>5,021,955</u>
Pass-Through Securities — 36.1%		
Federal Home Loan Mortgage Corp. Pool #SD8193 2.000% 2/01/52	4,167,838	3,413,082
Pool #SD8199 2.000% 3/01/52	2,205,236	1,805,200
Pool #QE0312 2.000% 4/01/52	1,997,805	1,635,397
Pool #SD8189 2.500% 1/01/52	2,380,628	2,027,836
Pool #SD8194 2.500% 2/01/52	3,888,982	3,309,625
Pool #SD8200 2.500% 3/01/52	2,331,527	1,984,190
Pool #SD8205 2.500% 4/01/52	4,132,744	3,515,781
Pool #SD8212 2.500% 5/01/52	4,016,017	3,416,479
Pool #G18596 3.000% 4/01/31	245,953	234,991
Pool #G18691 3.000% 6/01/33	93,118	88,531
Pool #G08710 3.000% 6/01/46	57,470	51,907
Pool #G08715 3.000% 8/01/46	1,228,170	1,109,280
Pool #G08721 3.000% 9/01/46	165,673	149,635
Pool #G08726 3.000% 10/01/46	2,208,450	1,991,906
Pool #G08732 3.000% 11/01/46	1,575,383	1,420,913
Pool #G08741 3.000% 1/01/47	1,062,886	958,668
Pool #G18713 3.500% 11/01/33	669,094	646,467
Pool #G16756 3.500% 1/01/34	270,793	261,636

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #G60038 3.500% 1/01/44	\$ 549,351	\$ 515,299
Pool #G07848 3.500% 4/01/44	4,295,779	4,034,280
Pool #G07924 3.500% 1/01/45	1,176,420	1,103,337
Pool #G60138 3.500% 8/01/45	2,459,844	2,310,874
Pool #G08711 3.500% 6/01/46	943,472	881,322
Pool #G08716 3.500% 8/01/46	1,360,751	1,270,263
Pool #G67703 3.500% 4/01/47	1,682,677	1,575,514
Pool #G08792 3.500% 12/01/47	1,152,879	1,071,170
Pool #G67706 3.500% 12/01/47	1,350,911	1,263,611
Pool #G67707 3.500% 1/01/48	1,596,152	1,495,996
Pool #G67708 3.500% 3/01/48	2,929,804	2,733,146
Pool #G67709 3.500% 3/01/48	3,826,422	3,576,754
Pool #G67711 4.000% 3/01/48	435,641	420,915
Pool #G67713 4.000% 6/01/48	1,137,609	1,096,665
Pool #G67714 4.000% 7/01/48	1,580,233	1,525,828
Pool #G67717 4.000% 11/01/48	1,406,016	1,357,609
Pool #G08843 4.500% 10/01/48	510,475	500,931
Pool #G08826 5.000% 6/01/48	162,843	163,531
Pool #G08844 5.000% 10/01/48	59,330	59,581
Federal National Mortgage Association		
Pool #MA4093 2.000% 8/01/40	836,326	715,976
Pool #MA4152 2.000% 10/01/40	3,145,479	2,692,836
Pool #MA4176 2.000% 11/01/40	2,284,664	1,944,471
Pool #MA4333 2.000% 5/01/41	681,442	578,270
Pool #BQ6913 2.000% 12/01/51	4,360,580	3,575,009
Pool #CB2767 2.000% 1/01/52	4,193,485	3,434,085
Pool #CB2766 2.000% 2/01/52	2,862,961	2,344,506
Pool #FS1598 2.000% 4/01/52	4,226,010	3,459,400
Pool #BL6060 2.455% 4/01/40	1,265,000	894,406
Pool #MA4548 2.500% 2/01/52	3,920,380	3,336,345
Pool #MA4563 2.500% 3/01/52	4,018,792	3,420,096
Pool #MA3029 3.000% 6/01/32	246,135	234,423
Pool #MA1607 3.000% 10/01/33	1,819,415	1,716,226
Pool #BN7755 3.000% 9/01/49	1,801,975	1,616,997
Pool #BO2259 3.000% 10/01/49	3,116,161	2,793,357
Pool #MA3811 3.000% 10/01/49	475,109	415,499
Pool #MA4579 3.000% 4/01/52	3,910,032	3,446,646
Pool #AB4262 3.500% 1/01/32	1,276,592	1,224,903
Pool #MA1148 3.500% 8/01/42	2,390,787	2,245,049
Pool #CA0996 3.500% 1/01/48	80,809	75,314
Pool #MA3276 3.500% 2/01/48	178,016	165,134
Pool #MA3305 3.500% 3/01/48	604,274	560,168
Pool #MA3332 3.500% 4/01/48	24,123	22,362
Pool #CA3633 3.500% 6/01/49	690,259	643,166
Pool #MA2995 4.000% 5/01/47	503,599	483,923
Pool #AS9830 4.000% 6/01/47	283,733	272,471
Pool #MA3027 4.000% 6/01/47	461,469	443,151
Pool #AS9972 4.000% 7/01/47	274,237	263,352
Pool #AL9106 4.500% 2/01/46	231,488	229,406
Pool #CA1710 4.500% 5/01/48	921,005	903,800
Pool #CA1711 4.500% 5/01/48	16,706	16,394
Pool #CA2208 4.500% 8/01/48	648,324	635,807
Government National Mortgage Association II		
Pool #MA4126 3.000% 12/20/46	1,449,927	1,315,432
Pool #MA4836 3.000% 11/20/47	1,022,574	926,761
Pool #MA6209 3.000% 10/20/49	428,063	374,042

Pool #MA4127 3.500% 12/20/46
Pool #MA4382 3.500% 4/20/47

988,971	926,365
168,255	157,393

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA4719 3.500% 9/20/47	\$ 1,476,584	\$ 1,380,340
Pool #MA4837 3.500% 11/20/47	201,546	188,410
Pool #MA4962 3.500% 1/20/48	504,433	471,554
Pool #MA5019 3.500% 2/20/48	693,350	647,724
Pool #MA4838 4.000% 11/20/47	421,561	405,197
Pool #MA4901 4.000% 12/20/47	345,533	332,120
Pool #MA5078 4.000% 3/20/48	284,728	273,320
Pool #MA5466 4.000% 9/20/48	196,709	188,582
Pool #MA5528 4.000% 10/20/48	788,090	755,283
Pool #MA4264 4.500% 2/20/47	212,587	211,438
Pool #MA4512 4.500% 6/20/47	1,281,249	1,270,724
Pool #MA3666 5.000% 5/20/46	28,987	29,379
Pool #MA3806 5.000% 7/20/46	194,917	197,471
Pool #MA4072 5.000% 11/20/46	38,999	39,469
Pool #MA4454 5.000% 5/20/47	702,632	713,751
Government National Mortgage Association II TBA 2.500% 1/23/53 (k)	11,675,000	10,133,536
Uniform Mortgage Backed Securities TBA		
2.000% 1/12/53 (k)	27,200,000	22,244,500
2.500% 12/25/51 (k)	26,700,000	22,686,656
3.000% 2/25/52 (k)	19,250,000	16,947,519
3.500% 2/25/49 (k)	5,575,000	5,078,912
4.000% 1/12/53 (k)	8,250,000	7,757,578
4.500% 1/12/53 (k)	33,925,000	32,742,924
5.000% 1/12/53 (k)	38,125,000	37,630,565
		<u>265,808,043</u>
U.S. Agencies Notes — 1.1%		
Federal Home Loan Banks		
1.040% 6/14/24	8,900,000	<u>8,431,683</u>
Whole Loans — 0.7%		
Federal Home Loan Mortgage Corp. Structured Agency Credit Risk Debt Notes, Series 2022-DNA2, Class M1B, 30 day SOFR + 2.400%		
6.328% FRN 2/25/42 (d)	2,450,000	2,381,806
Federal National Mortgage Association Connecticut Avenue Securities Trust, Series 2022-R03, Class 1M2, 30 day SOFR + 3.500%		
7.428% FRN 3/25/42 (d)	2,400,000	<u>2,429,495</u>
		<u>4,811,301</u>
TOTAL U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (Cost \$296,985,112)		<u>284,072,982</u>
U.S. TREASURY OBLIGATIONS — 26.6%		
U.S. Treasury Bonds & Notes — 26.6%		
U.S. Treasury Bond		
2.000% 11/15/41	47,657,000	34,297,065
2.375% 2/15/42	17,185,000	13,215,748
4.000% 11/15/52	14,820,000	14,986,725
U.S. Treasury Inflation Index		
0.625% 7/15/32	989,656	907,442
U.S. Treasury Note		
3.875% 11/30/27 (f)	30,900,000	30,776,570
3.875% 12/31/27 (k)	43,575,000	43,405,537
4.125% 10/31/27	1,420,000	1,427,278
4.125% 11/15/32	7,507,000	7,681,023

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.000% 12/15/25	\$ 695,000	\$ 691,334
4.250% 12/31/24	3,565,000	3,554,765
4.500% 11/30/24 (f)	44,560,000	44,586,856
		<u>195,530,343</u>
TOTAL U.S. TREASURY OBLIGATIONS (Cost \$205,364,512)		<u>195,530,343</u>
TOTAL BONDS & NOTES (Cost \$903,486,530)		<u>842,235,057</u>
	Number of Shares	
RIGHTS — 0.0%		
Communications — 0.0%		
Telecommunications — 0.0%		
Intelsat Jackson Holdings S.A. (a) (g) (h)	1,754	—
Intelsat Jackson Holdings S.A. (a) (g) (h)	1,754	—
		<u>—</u>
TOTAL RIGHTS (Cost \$0)		<u>—</u>
MUTUAL FUNDS — 5.0%		
Diversified Financial Services — 5.0%		
State Street Navigator Securities Lending Government Money Market Portfolio (l)	37,216,875	<u>37,216,875</u>
TOTAL MUTUAL FUNDS (Cost \$37,216,875)		<u>37,216,875</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$942,278,760)		<u>879,828,897</u>
	Principal Amount	
SHORT-TERM INVESTMENTS — 13.6%		
Repurchase Agreement — 10.6%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (m)	\$ 77,906,538	<u>77,906,538</u>
U.S. Treasury Bill — 3.0%		
U.S. Treasury Bill		
4.608% 5/25/23 (n)	6,710,000	6,590,593
4.622% 5/11/23 (n)	15,500,000	<u>15,249,759</u>
		<u>21,840,352</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$99,743,853)		<u>99,746,890</u>

MassMutual Total Return Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL INVESTMENTS — 133.2% (Cost \$1,042,022,613) (o)		\$ 979,575,787
Less Unfunded Loan Commitments — (0.0)%		(11,344)
NET INVESTMENTS — 133.2% (Cost \$1,042,011,269)		\$ 979,564,443
Other Assets/(Liabilities) — (33.2)%		(244,064,333)
NET ASSETS — 100.0%		<u>\$ 735,500,110</u>

Abbreviation Legend

CLO	Collateralized Loan Obligation
DIP	Debtor In Possession
FRN	Floating Rate Note
REMICS	Real Estate Mortgage Investment Conduits
STEP	Step Up Bond
TBA	To Be Announced
VRN	Variable Rate Note

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Non-income producing security.
- (b) All or a portion of the security represents unsettled loan commitments at December 31, 2022 where the rate will be determined at time of settlement.
- (c) Unfunded or partially unfunded loan commitments.
- (d) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$157,876,453 or 21.47% of net assets.
- (e) The principal amount of the security is in foreign currency. The market value is in U.S. dollars.
- (f) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$36,576,051 or 4.97% of net assets. The Fund received \$108,062 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (*Note 2*).
- (g) Investment is valued using significant unobservable inputs.
- (h) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$0 or 0.00% of net assets.
- (i) Certain variable rate securities are not based on a published reference rate and spread but are determined by the issuer or agent and are based on current market conditions. These securities do not indicate a reference rate and spread in their description above. The rates shown are the current interest rates at December 31, 2022.
- (j) May contain securities that are issued by a U.S. Government Agency, but are unsecured and are not guaranteed by a U.S. Government Agency.
- (k) A portion of this security is purchased on a when-issued, delayed-delivery or forward commitment basis.
- (l) Represents investment of security lending cash collateral. (*Note 2*).
- (m) Maturity value of \$77,917,618. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$79,464,743.
- (n) The rate shown represents yield-to-maturity.
- (o) See Note 3 for aggregate cost for federal tax purposes.

Forward contracts

Counterparty	Settlement Date	Currency Purchased	Currency Sold	Unrealized Appreciation (Depreciation)
Bank of America N.A.	1/13/23	EUR	54,000	USD 52,960 \$ 4,880
Bank of America N.A.	1/13/23	USD	1,194,594	EUR 1,202,000 (92,893)

				\$	(88,013)
Futures contracts					
				Value/ Net Unrealized Appreciation/ (Depreciation)	
				Expiration Date	Number of Contracts
				Notional Amount	
Long					
U.S. Treasury Ultra Bond				3/22/23	30
U.S. Treasury Note 2 Year				3/31/23	681
					\$ 4,058,525
					\$ (29,150)
					121,212
					\$ 92,062
Short					
Euro-Bund				3/08/23	5
					\$ (753,802)
					\$ 42,328

Centrally Cleared Interest Rate Swaps

Paid by the Fund		Received by the Fund						Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
Rate/ Reference	Frequency	Rate/ Reference	Frequency	Termination Date	Notional Amount	Value			
12 Month USD SOFR	Annually	Fixed 1.950%	Annually	6/10/24	USD 41,670,000	\$(1,623,655)	\$	—	\$(1,623,655)
3-Month USD LIBOR BBA	Quarterly	Fixed 1.073%	Semi-Annually	7/24/25	USD 10,155,000	(607,512)		—	(607,512)
3-Month USD LIBOR BBA	Quarterly	Fixed 1.034%	Semi-Annually	7/24/25	USD 15,025,000	(909,669)		—	(909,669)
3-Month USD LIBOR BBA	Quarterly	Fixed 1.026%	Semi-Annually	7/24/25	USD 20,310,000	(1,232,640)		—	(1,232,640)
3-Month USD LIBOR BBA	Quarterly	Fixed 1.390%	Semi-Annually	9/28/25	USD 25,970,000	(1,314,635)		—	(1,314,635)
Fixed 1.808%	Semi-Annually	3-Month USD LIBOR BBA	Quarterly	7/24/53	USD 850,000	253,079		—	253,079
Fixed 1.785%	Semi-Annually	3-Month USD LIBOR BBA	Quarterly	7/24/53	USD 1,250,000	377,327		—	377,327
Fixed 1.773%	Semi-Annually	3-Month USD LIBOR BBA	Quarterly	7/24/53	USD 1,700,000	517,057		—	517,057
Fixed 1.870%	Semi-Annually	3-Month USD LIBOR BBA	Quarterly	9/28/53	USD 2,215,000	621,647		—	621,647
						\$(3,919,001)	\$	—	\$(3,919,001)

Currency Legend

EUR Euro
USD U.S. Dollar

MassMutual Strategic Bond Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Principal Amount	Value
BONDS & NOTES — 100.4%		
BANK LOANS — 2.7%		
Advertising — 0.0%		
CMG Media Corp., 2021 Term Loan, 3 mo. USD LIBOR + 3.500%		
8.230% VRN 12/17/26	\$ 167,764	\$ 156,710
Airlines — 0.1%		
United Airlines, Inc., 2021 Term Loan B, 3 mo. USD LIBOR + 3.750%		
8.108% VRN 4/21/28	481,302	474,352
Auto Parts & Equipment — 0.1%		
Clarios Global LP, 2021 USD Term Loan B, 1 mo. USD LIBOR + 3.250%		
7.637% VRN 4/30/26	380,344	371,946
Beverages — 0.1%		
Triton Water Holdings, Inc., Term Loan, 3 mo. USD LIBOR + 3.500%		
8.230% VRN 3/31/28	482,651	447,176
Commercial Services — 0.2%		
API Group DE, Inc., Term Loan B, 1 mo. USD LIBOR + 2.500%		
6.884% VRN 10/01/26	226,314	224,617
Prime Security Services Borrower LLC, 2021 Term Loan, 3 mo. USD LIBOR + 2.750%		
6.505% VRN 9/23/26	281,904	279,113
Verscend Holding Corp., 2021 Term Loan B, 1 mo. USD LIBOR + 4.000%		
8.384% VRN 8/27/25	512,728	508,426
		1,012,156
Computers — 0.1%		
Magenta Buyer LLC, 2021 USD 1st Lien Term Loan, 3 mo. USD LIBOR + 4.750%		
9.170% VRN 7/27/28	465,100	395,917
Peraton Corp., Term Loan B, 1 mo. USD LIBOR + 3.750%		
8.139% VRN 2/01/28	273,963	267,056
		662,973
Diversified Financial Services — 0.3%		
Avolon TLB Borrower 1 (US) LLC, 2021 Term Loan B5, 1 mo. USD LIBOR + 2.250%		
6.603% VRN 12/01/27	87,459	87,163
Castlelake Aviation Ltd., Term Loan B, 3 mo. USD LIBOR + 2.750%		
7.519% VRN 10/22/26	315,653	312,439
Citadel Securities LP, 2021 Term Loan B, 1 mo. USD SOFR CME + 2.500%		
6.823% VRN 2/02/28	52,305	51,220
Deerfield Dakota Holding LLC, 2020 USD Term Loan B, 1 mo. USD SOFR CME + 3.750%		
8.073% VRN 4/09/27	298,202	277,981

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Focus Financial Partners LLC, 2022 Term Loan B5, 1 mo. USD SOFR CME + 3.250% 7.572% VRN 6/30/28	\$ 119,700	\$ 118,105
Jane Street Group LLC, 2021 Term Loan, 1 mo. USD LIBOR + 2.750% 7.134% VRN 1/26/28	276,745	268,182
VFH Parent LLC, 2022 Term Loan B, 1 mo. USD SOFR + 3.000% 7.421% VRN 1/13/29	110,000	106,865
		1,221,955
Electronics — 0.0%		
II-VI, Inc., 2022 Term Loan B, 3 mo. USD LIBOR + 2.750% 7.134% VRN 7/02/29	156,743	154,744
Entertainment — 0.1%		
PCI Gaming Authority, Term Loan, 1 mo. USD LIBOR + 2.500% 6.884% VRN 5/29/26	258,892	256,951
Scientific Games International, Inc., 2022 USD Term Loan, 1 mo. USD SOFR CME + 3.000% 7.417% VRN 4/14/29	238,800	234,962
		491,913
Health Care – Products — 0.1%		
Sotera Health Holdings LLC, 2021 Term Loan, 3 mo. USD LIBOR + 2.750% 7.165% VRN 12/11/26	260,000	239,200
Health Care – Services — 0.1%		
Global Medical Response, Inc., 2020 Term Loan B, 1 mo. USD LIBOR + 4.250% 8.422% VRN 10/02/25	381,052	265,547
Phoenix Guarantor, Inc., 2020 Term Loan B, 1 mo. USD LIBOR + 3.250% 7.634% VRN 3/05/26	487,403	455,824
		721,371
Housewares — 0.1%		
Solis IV B.V., USD Term Loan B1, 3 mo. USD SOFR CME + 3.500% 7.859% VRN 2/26/29	368,150	322,459
Insurance — 0.1%		
AmWINS Group, Inc., 2021 Term Loan B, 1 mo. USD LIBOR + 2.250% 6.634% VRN 2/19/28	253,282	248,455
Leisure Time — 0.1%		
Alterra Mountain Co., 2021 Series B-2 Consenting Term Loan, 1 mo. USD LIBOR + 3.500% 7.884% VRN 8/17/28	365,774	360,518
Lodging — 0.1%		
Caesars Resort Collection LLC, 2017 1st Lien Term Loan B, 1 mo. USD LIBOR + 2.750% 7.134% VRN 12/23/24	53,560	53,390
Station Casinos LLC, 2020 Term Loan B, 1 mo. USD LIBOR + 2.250% 6.640% VRN 2/08/27	461,492	449,715
		503,105

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Machinery – Diversified — 0.1%		
Ali Group North America Corp., 2021 Term Loan B, 1 mo. USD LIBOR + 2.000% 6.438% VRN 7/30/29	\$ 256,489	\$ 253,970
Media — 0.2%		
iHeartCommunications, Inc., 2020 Term Loan, 1 mo. USD LIBOR + 3.000% 7.384% VRN 5/01/26	495,927	453,620
Nexstar Broadcasting, Inc., 2019 Term Loan B4, 1 mo. USD LIBOR + 2.500% 6.884% VRN 9/18/26	190,766	189,001
Virgin Media Bristol LLC, USD Term Loan N, 1 mo. USD LIBOR + 2.500% 6.818% VRN 1/31/28	203,954	200,240
		842,861
Pharmaceuticals — 0.3%		
Grifols Worldwide Operations USA, Inc., USD 2019 Term Loan B, 1 mo. USD LIBOR + 2.000% 6.384% VRN 11/15/27	307,795	297,152
Horizon Therapeutics USA, Inc., 2021 Term Loan B2, 1 mo. USD LIBOR + 1.750% 6.188% VRN 3/15/28	471,600	471,010
Jazz Financing Lux SARL, USD Term Loan, 1 mo. USD LIBOR + 3.500% 7.884% VRN 5/05/28	435,231	430,809
		1,198,971
Retail — 0.1%		
1011778 B.C. Unlimited Liability Co., Term Loan B4, 1 mo. USD LIBOR + 1.750%, 3 mo. USD LIBOR + 1.750% 6.165% - 6.165% VRN 11/19/26	20,175	19,796
Harbor Freight Tools USA, Inc., 2021 Term Loan B, 1 mo. USD LIBOR + 2.750% 7.134% VRN 10/19/27	372,572	354,197
		373,993
Software — 0.2%		
Athenahealth, Inc. 2022 Delayed Draw Term Loan, 3 mo. USD SOFR CME + 3.500%, 3 mo. USD SOFR CME + 3.500% 7.821% VRN 2/15/29 (a)	59,420	53,499
2022 Term Loan B, 1 mo. USD SOFR CME + 3.500% 7.821% VRN 2/15/29	348,827	314,070
Cloudera, Inc., 2021 Term Loan, 1 mo. USD LIBOR + 3.750% 8.134% VRN 10/08/28	198,500	186,219
DCert Buyer, Inc., 2019 Term Loan B, 6 mo. USD SOFR CME + 4.000% 8.696% VRN 10/16/26	111,700	107,751
Rackspace Technology Global, Inc., 2021 Term Loan B, 3 mo. USD LIBOR + 2.750% 7.380% VRN 2/15/28	432,201	268,552
		930,091
Telecommunications — 0.1%		
Level 3 Financing, Inc., 2019 Term Loan B, 1 mo. USD LIBOR + 1.750% 6.134% VRN 3/01/27	316,209	302,374

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
Transportation — 0.1%		
Genesee & Wyoming, Inc., Term Loan, 3 mo. USD LIBOR + 2.000%		
6.730% VRN 12/30/26	\$ 233,159	\$ 231,643
TOTAL BANK LOANS		
(Cost \$12,235,197)		11,522,936
CORPORATE DEBT — 31.3%		
Aerospace & Defense — 0.8%		
The Boeing Co.		
2.196% 2/04/26	230,000	209,196
2.700% 2/01/27	90,000	81,347
2.800% 3/01/27	150,000	135,538
3.100% 5/01/26	80,000	75,364
3.200% 3/01/29	290,000	255,314
3.250% 2/01/35	360,000	275,561
3.550% 3/01/38	80,000	59,231
3.750% 2/01/50	240,000	166,041
5.150% 5/01/30	160,000	156,529
5.705% 5/01/40	110,000	104,896
5.805% 5/01/50	380,000	353,792
5.930% 5/01/60	40,000	36,672
General Dynamics Corp.		
3.500% 5/15/25	50,000	48,756
4.250% 4/01/40	20,000	18,353
4.250% 4/01/50	50,000	44,513
L3 Harris Technologies, Inc.		
5.054% 4/27/45	50,000	45,022
Lockheed Martin Corp.		
3.550% 1/15/26	45,000	43,756
3.900% 6/15/32	50,000	47,196
4.150% 6/15/53	320,000	273,329
4.500% 5/15/36	60,000	57,515
Northrop Grumman Corp.		
2.930% 1/15/25	160,000	153,556
3.250% 1/15/28	290,000	267,921
5.250% 5/01/50	160,000	158,789
Raytheon Technologies Corp.		
2.250% 7/01/30	110,000	91,827
4.125% 11/16/28	160,000	153,448
4.500% 6/01/42	80,000	72,519
		<u>3,385,981</u>
Agriculture — 0.4%		
Altria Group, Inc.		
2.450% 2/04/32	140,000	105,987
4.400% 2/14/26	192,000	188,130
5.800% 2/14/39	240,000	220,384
5.950% 2/14/49	260,000	231,896
6.200% 2/14/59	56,000	52,326
BAT Capital Corp.		
3.557% 8/15/27	170,000	155,302
4.540% 8/15/47	360,000	256,131
Cargill, Inc.		
1.375% 7/23/23 (b)	180,000	176,330
Philip Morris International, Inc.		

1.125% 5/01/23

190,000

187,641

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
2.100% 5/01/30	\$ 40,000	\$ 32,460
4.500% 3/20/42	80,000	67,868
Reynolds American, Inc.		
5.850% 8/15/45	110,000	94,229
		<u>1,768,684</u>
Airlines — 0.9%		
Delta Air Lines, Inc.		
3.800% 4/19/23 (c)	90,000	88,875
2.900% 10/28/24	180,000	170,528
7.000% 5/01/25 (b)	1,670,000	1,708,038
7.375% 1/15/26 (c)	380,000	388,261
Delta Air Lines, Inc./SkyMiles IP Ltd.		
4.500% 10/20/25 (b)	320,000	312,329
4.750% 10/20/28 (b)	300,000	282,393
Hawaiian Brand Intellectual Property Ltd. / HawaiianMiles Loyalty Ltd.		
5.750% 1/20/26 (b)	10,000	9,050
Mileage Plus Holdings LLC / Mileage Plus Intellectual Property Assets Ltd.		
6.500% 6/20/27 (b)	297,019	295,297
Spirit Loyalty Cayman Ltd. / Spirit IP Cayman Ltd.		
8.000% 9/20/25 (b)	240,000	240,773
Spirit Loyalty Cayman Ltd./Spirit IP Cayman Ltd.		
8.000% 9/20/25 (b) (c)	250,000	251,283
United Airlines, Inc.		
4.375% 4/15/26 (b)	80,000	74,154
4.625% 4/15/29 (b)	290,000	252,502
		<u>4,073,483</u>
Apparel — 0.1%		
NIKE, Inc.		
2.850% 3/27/30	280,000	250,867
3.250% 3/27/40	130,000	105,924
3.375% 3/27/50 (c)	40,000	31,499
		<u>388,290</u>
Auto Manufacturers — 1.1%		
Ford Motor Co.		
4.750% 1/15/43	90,000	64,641
6.100% 8/19/32 (c)	90,000	83,261
Ford Motor Credit Co. LLC		
2.900% 2/16/28	390,000	322,109
3.625% 6/17/31	220,000	172,983
4.000% 11/13/30	200,000	164,168
4.125% 8/17/27	200,000	179,000
4.950% 5/28/27	250,000	233,225
5.125% 6/16/25	200,000	192,202
General Motors Co.		
5.150% 4/01/38	40,000	34,661
5.200% 4/01/45	960,000	785,866
5.600% 10/15/32	1,840,000	1,718,986
5.950% 4/01/49	110,000	96,433
6.125% 10/01/25	20,000	20,371
6.600% 4/01/36	10,000	9,859
General Motors Financial Co., Inc.		
3.100% 1/12/32	40,000	31,453
4.250% 5/15/23	10,000	9,959

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Nissan Motor Co. Ltd.		
3.043% 9/15/23 (b)	\$ 200,000	\$ 195,947
3.522% 9/17/25 (b)	410,000	381,184
4.345% 9/17/27 (b)	300,000	272,319
		<u>4,968,627</u>
Auto Parts & Equipment — 0.1%		
Aptiv PLC/Aptiv Corp.		
3.250% 3/01/32 (c)	520,000	<u>427,178</u>
Banks — 9.7%		
ABN AMRO Bank NV		
4.750% 7/28/25 (b)	260,000	252,151
Banco Santander SA		
2.746% 5/28/25	600,000	561,565
3 mo. USD LIBOR + 1.120% 5.039% FRN 4/12/23	200,000	200,021
Bank of America Corp.		
SOFR + 1.210% 2.572% VRN 10/20/32	60,000	47,163
SOFR + 2.150% 2.592% VRN 4/29/31	360,000	294,058
SOFR + 1.330% 2.972% VRN 2/04/33	670,000	541,854
3 mo. USD LIBOR + 1.040% 3.419% VRN 12/20/28	570,000	516,194
3 mo. USD LIBOR + .780% 3.550% VRN 3/05/24	260,000	259,074
3 mo. USD LIBOR + 1.370% 3.593% VRN 7/21/28	270,000	248,939
3 mo. USD LIBOR + 1.070% 3.970% VRN 3/05/29	890,000	822,625
3 mo. USD LIBOR + 1.210% 3.974% VRN 2/07/30	270,000	245,812
4.000% 4/01/24	270,000	266,685
4.000% 1/22/25	270,000	264,415
3 mo. USD LIBOR + 3.150% 4.083% VRN 3/20/51	4,500,000	3,551,369
4.200% 8/26/24	380,000	374,320
4.250% 10/22/26	50,000	48,364
3 mo. USD LIBOR + 1.520% 4.330% VRN 3/15/50	90,000	74,354
SOFR + 1.580% 4.376% VRN 4/27/28	300,000	287,310
4.450% 3/03/26	50,000	49,034
5.000% 1/21/44	130,000	119,467
3 mo. USD LIBOR + 3.705% 6.250% VRN (d)	170,000	163,261
Bank of Montreal		
1.850% 5/01/25	70,000	65,333
5 year USD Swap + 1.432% 3.803% VRN 12/15/32	90,000	79,376
The Bank of New York Mellon Corp.		
1.600% 4/24/25	170,000	158,067
The Bank of Nova Scotia		
1.300% 6/11/25	120,000	110,034
5 year CMT + 2.050% 4.588% VRN 5/04/37	100,000	85,619
Barclays PLC 3 mo. USD LIBOR + 3.054%		
5.088% VRN 6/20/30	510,000	470,888
BNP Paribas SA		
SOFR + 2.074% 2.219% VRN 6/09/26 (b)	200,000	183,773
5 year USD Swap + 1.483% 4.375% VRN 3/01/33 (b)	220,000	194,768
4.400% 8/14/28 (b)	400,000	379,493
4.625% 3/13/27 (b)	260,000	246,874
3 mo. USD LIBOR + 2.235% 4.705% VRN 1/10/25 (b)	390,000	386,208
Canadian Imperial Bank of Commerce		
0.950% 6/23/23	120,000	117,759
Citigroup, Inc.		
SOFR + 2.107% 2.572% VRN 6/03/31	170,000	137,903
SOFR + 1.939% 3.785% VRN 3/17/33	1,890,000	1,622,318
3 mo. USD LIBOR + 1.338% 3.980% VRN 3/20/30	180,000	162,736

4.125% 7/25/28

150,000

139,894

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.300% 11/20/26	\$ 670,000	\$ 648,986
SOFR + 3.914% 4.412% VRN 3/31/31	410,000	377,539
4.450% 9/29/27	480,000	458,687
4.650% 7/30/45	181,000	156,220
4.650% 7/23/48	70,000	60,919
SOFR + 1.887% 4.658% VRN 5/24/28	50,000	48,446
4.750% 5/18/46	40,000	33,431
SOFR + 2.086% 4.910% VRN 5/24/33	130,000	122,144
5.300% 5/06/44	16,000	14,494
3 mo. USD LIBOR + 4.068% 5.950% VRN (c) (d)	50,000	49,513
3 mo. USD LIBOR + 3.905% 5.950% VRN (d)	150,000	137,063
3 mo. USD LIBOR + 3.423% 6.300% VRN (d)	60,000	56,595
6.625% 6/15/32	20,000	21,132
8.125% 7/15/39	50,000	61,716
Cooperatieve Rabobank UA		
1 year CMT + 1.220% 3.649% VRN 4/06/28 (b)	300,000	276,794
4.375% 8/04/25	470,000	459,160
Credit Agricole SA SOFR + 1.676%		
1.907% VRN 6/16/26 (b)	270,000	246,305
Credit Suisse AG		
5.000% 7/09/27	250,000	228,122
Credit Suisse Group AG		
SOFR + 2.044% 2.193% VRN 6/05/26 (b)	480,000	410,282
SOFR + 1.730% 3.091% VRN 5/14/32 (b) (c)	350,000	242,896
SOFR + 3.730% 4.194% VRN 4/01/31 (b)	250,000	194,597
5 year CMT + 6.383% 9.750% VRN (b) (c) (d)	470,000	409,591
Danske Bank A/S		
5.375% 1/12/24 (b)	240,000	238,077
Goldman Sachs Capital II 3 mo. USD LIBOR + .768%		
5.528% VRN (d)	8,000	6,011
The Goldman Sachs Group, Inc.		
SOFR + 1.472% 2.908% VRN 7/21/42	80,000	54,783
SOFR + 1.513% 3.210% VRN 4/22/42	40,000	28,989
3.500% 4/01/25	370,000	355,996
3.500% 11/16/26	200,000	187,672
SOFR + 1.846% 3.615% VRN 3/15/28	50,000	46,531
3 mo. USD LIBOR + 1.510% 3.691% VRN 6/05/28	430,000	399,476
3.850% 7/08/24	90,000	88,113
4.000% 3/03/24	100,000	98,686
3 mo. USD LIBOR + 1.301% 4.223% VRN 5/01/29	490,000	457,288
4.250% 10/21/25	260,000	254,098
4.750% 10/21/45	130,000	114,663
5.150% 5/22/45	290,000	262,055
5.700% 11/01/24	2,810,000	2,846,806
6.250% 2/01/41	130,000	136,426
6.750% 10/01/37	80,000	85,108
HSBC Holdings PLC		
SOFR + 1.929% 2.099% VRN 6/04/26	510,000	465,013
3.900% 5/25/26	200,000	190,705
4.250% 8/18/25	330,000	317,708
SOFR + 2.530% 4.762% VRN 3/29/33	200,000	173,900
Intesa Sanpaolo SpA		
3.375% 1/12/23 (b)	350,000	349,827
5.017% 6/26/24 (b)	900,000	865,517
5.710% 1/15/26 (b)	200,000	192,395
JP Morgan Chase & Co.		

SOFR + 1.850% 2.083% VRN 4/22/26	340,000	315,462
SOFR + 2.040% 2.522% VRN 4/22/31	300,000	246,207

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
SOFR + 1.180% 2.545% VRN 11/08/32	\$ 160,000	\$ 126,908
SOFR + 2.440% 3.109% VRN 4/22/51	80,000	52,835
SOFR + 1.580% 3.328% VRN 4/22/52	350,000	239,516
3 mo. USD LIBOR + .945% 3.509% VRN 1/23/29	70,000	63,634
3.875% 9/10/24	300,000	293,776
3 mo. USD LIBOR + 1.260% 4.203% VRN 7/23/29	310,000	289,381
4.250% 10/01/27	70,000	67,452
3 mo. USD LIBOR + 1.330% 4.452% VRN 12/05/29	830,000	781,149
SOFR + 2.080% 4.912% VRN 7/25/33	1,770,000	1,693,329
4.950% 6/01/45	140,000	125,515
Lloyds Banking Group PLC		
4.550% 8/16/28	370,000	348,736
Macquarie Group Ltd.		
6.207% 11/22/24 (b)	3,580,000	3,602,935
Mitsubishi UFJ Financial Group, Inc. 1 year CMT + 1.125%		
3.837% VRN 4/17/26 (c)	200,000	192,768
Morgan Stanley		
SOFR + 1.990% 2.188% VRN 4/28/26	340,000	316,190
SOFR + 1.143% 2.699% VRN 1/22/31	10,000	8,287
SOFR + 3.120% 3.622% VRN 4/01/31	750,000	656,597
3 mo. USD LIBOR + 1.140% 3.772% VRN 1/24/29	350,000	321,052
3 mo. USD LIBOR + 1.628% 4.431% VRN 1/23/30	10,000	9,359
National Securities Clearing Corp.		
1.500% 4/23/25 (b)	250,000	231,915
Natwest Group PLC 3 mo. USD LIBOR + 1.550%		
4.519% VRN 6/25/24	200,000	198,167
Royal Bank of Canada		
1.150% 6/10/25	310,000	283,981
1.600% 4/17/23	30,000	29,740
3.875% 5/04/32	40,000	36,549
Santander Holdings USA, Inc.		
4.500% 7/17/25	50,000	48,947
The Toronto-Dominion Bank		
1.150% 6/12/25	300,000	273,663
UBS Group AG		
4.253% 3/23/28 (b)	340,000	317,956
5 year USD Swap + 4.344% 7.000% VRN (b) (d)	500,000	491,998
US Bancorp		
1.450% 5/12/25	280,000	259,801
Wells Fargo & Co.		
SOFR + 2.000% 2.188% VRN 4/30/26	200,000	186,273
SOFR + 2.100% 2.393% VRN 6/02/28	230,000	203,305
3 mo. TSFR + 1.432% 2.879% VRN 10/30/30	150,000	127,875
3.000% 10/23/26	350,000	323,887
SOFR + 1.500% 3.350% VRN 3/02/33	360,000	304,331
4.300% 7/22/27	370,000	356,677
4.400% 6/14/46	180,000	144,699
SOFR + 4.032% 4.478% VRN 4/04/31	210,000	197,399
4.650% 11/04/44	80,000	67,769
4.750% 12/07/46	10,000	8,427
4.900% 11/17/45	250,000	216,585
SOFR + 4.502% 5.013% VRN 4/04/51	1,350,000	1,197,571
5.375% 11/02/43	110,000	102,873
3 mo. USD LIBOR + 3.990% 5.875% VRN (d)	50,000	48,378
		<u>42,069,407</u>
Beverages — 0.4%		

Anheuser-Busch Cos. LLC/Anheuser-Busch InBev Worldwide, Inc.

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
3.650% 2/01/26	\$ 320,000	\$ 308,211
4.900% 2/01/46	50,000	45,827
Anheuser-Busch InBev Worldwide, Inc.		
3.500% 6/01/30	130,000	118,692
4.000% 4/13/28	80,000	76,290
4.350% 6/01/40	30,000	26,490
4.600% 4/15/48	15,000	13,139
4.750% 1/23/29	230,000	227,555
5.550% 1/23/49	110,000	109,765
The Coca-Cola Co.		
1.450% 6/01/27	250,000	221,069
2.500% 6/01/40	10,000	7,335
2.600% 6/01/50	80,000	53,855
Constellation Brands, Inc.		
3.600% 5/09/24	60,000	58,770
4.350% 5/09/27	80,000	78,016
Molson Coors Beverage Co.		
3.000% 7/15/26	50,000	46,459
4.200% 7/15/46	50,000	39,030
PepsiCo, Inc.		
1.625% 5/01/30	170,000	139,005
		<u>1,569,508</u>
Biotechnology — 0.0%		
Amgen, Inc.		
4.663% 6/15/51	24,000	20,585
Gilead Sciences, Inc.		
3.700% 4/01/24	130,000	127,837
4.500% 2/01/45	10,000	8,863
4.750% 3/01/46	40,000	36,131
		<u>193,416</u>
Building Materials — 0.0%		
Builders FirstSource, Inc.		
4.250% 2/01/32 (b)	20,000	16,232
Carrier Global Corp.		
3.577% 4/05/50	20,000	14,361
		<u>30,593</u>
Chemicals — 0.2%		
Equate Petrochemical BV		
4.250% 11/03/26 (b)	230,000	219,713
OCP SA		
3.750% 6/23/31 (b)	260,000	217,360
5.125% 6/23/51 (b)	220,000	166,401
Orbia Advance Corp. SAB de CV		
2.875% 5/11/31 (b)	490,000	382,812
		<u>986,286</u>
Commercial Services — 0.2%		
The ADT Security Corp.		
4.125% 8/01/29 (b)	10,000	8,505
Allied Universal Holdco LLC / Allied Universal Finance Corp.		
6.625% 7/15/26 (b)	10,000	9,150
Cintas Corp. No 2		
3.700% 4/01/27	160,000	154,456

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
DP World Ltd. 5.625% 9/25/48 (b)	\$ 330,000	\$ 308,941
PayPal Holdings, Inc. 1.650% 6/01/25	270,000	250,441
United Rentals North America, Inc. 3.750% 1/15/32	80,000	65,266
3.875% 11/15/27	60,000	55,529
3.875% 2/15/31	20,000	16,766
		<u>869,054</u>
Computers — 0.4%		
Apple, Inc. 2.450% 8/04/26	340,000	315,709
Dell International LLC/EMC Corp. 3.375% 12/15/41 (b) (c)	1,320,000	890,059
International Business Machines Corp. 3.000% 5/15/24	320,000	311,324
		<u>1,517,092</u>
Cosmetics & Personal Care — 0.1%		
GSK Consumer Healthcare Capital US LLC 3.375% 3/24/29	260,000	234,302
The Procter & Gamble Co. 3.000% 3/25/30	100,000	91,424
		<u>325,726</u>
Distribution & Wholesale — 0.0%		
H&E Equipment Services, Inc. 3.875% 12/15/28 (b)	20,000	17,036
Diversified Financial Services — 0.7%		
AerCap Ireland Capital DAC / AerCap Global Aviation Trust 2.450% 10/29/26	320,000	280,151
3.000% 10/29/28	160,000	134,317
3.150% 2/15/24	190,000	183,725
3.300% 1/30/32	160,000	125,547
Air Lease Corp. 3.375% 7/01/25	80,000	75,758
American Express Co. 3.375% 5/03/24	130,000	127,404
4.050% 5/03/29 (c)	210,000	200,391
Blue Owl Finance LLC 3.125% 6/10/31 (b)	1,610,000	1,199,599
ILFC E-Capital Trust II 6.538% VRN 12/21/65 (b) (e)	10,000	6,450
Intercontinental Exchange, Inc. 4.600% 3/15/33	80,000	76,781
4.950% 6/15/52	20,000	18,666
KKR Group Finance Co. II LLC 5.500% 2/01/43 (b) (c)	20,000	18,495
Mastercard, Inc. 3.850% 3/26/50	50,000	42,240
Park Aerospace Holdings Ltd. 4.500% 3/15/23 (b)	10,000	9,975
5.500% 2/15/24 (b)	50,000	49,363

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Vanguard Group, Inc.		
3.050% 8/22/50	\$ 450,000	\$ 290,682
Visa, Inc.		
3.150% 12/14/25	200,000	192,838
4.300% 12/14/45	160,000	146,905
		<u>3,179,287</u>
Electric — 0.2%		
American Transmission Systems, Inc.		
2.650% 1/15/32 (b)	440,000	362,340
Consolidated Edison Co. of New York, Inc.		
3.350% 4/01/30	70,000	63,133
3.950% 4/01/50	50,000	39,873
Duke Energy Ohio, Inc.		
3.650% 2/01/29	260,000	242,024
Exelon Corp.		
5.625% 6/15/35	40,000	40,738
Pacific Gas and Electric Co.		
2.100% 8/01/27	140,000	119,637
2.500% 2/01/31	40,000	31,255
3.300% 8/01/40	50,000	34,043
3.500% 8/01/50	80,000	50,554
		<u>983,597</u>
Electronics — 0.0%		
Honeywell International, Inc.		
1.350% 6/01/25	80,000	74,021
Entertainment — 0.2%		
Warnermedia Holdings, Inc.		
3.755% 3/15/27 (b)	60,000	54,169
4.054% 3/15/29 (b)	80,000	69,342
4.279% 3/15/32 (b)	450,000	371,192
5.050% 3/15/42 (b)	20,000	15,376
5.141% 3/15/52 (b)	400,000	292,207
		<u>802,286</u>
Environmental Controls — 0.1%		
Republic Services, Inc.		
2.500% 8/15/24	230,000	220,502
Food — 0.2%		
Danone SA		
2.589% 11/02/23 (b)	310,000	303,527
The Hershey Co.		
0.900% 6/01/25	50,000	45,670
Mars, Inc.		
2.700% 4/01/25 (b)	140,000	133,370
3.200% 4/01/30 (b)	80,000	71,661
Mondelez International, Inc.		
1.500% 5/04/25	390,000	361,241
		<u>915,469</u>
Forest Products & Paper — 0.1%		
Suzano Austria GmbH		
3.125% 1/15/32	80,000	62,374

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
3.750% 1/15/31	\$ 430,000	\$ 360,908
		<u>423,282</u>
Health Care – Products — 0.1%		
Abbott Laboratories		
3.750% 11/30/26	139,000	135,482
4.750% 11/30/36	80,000	79,608
4.900% 11/30/46	100,000	97,494
Medtronic, Inc.		
4.625% 3/15/45	18,000	16,871
		<u>329,455</u>
Health Care – Services — 0.4%		
Aetna, Inc.		
2.800% 6/15/23	40,000	39,578
Centene Corp.		
2.625% 8/01/31	10,000	7,841
3.000% 10/15/30	10,000	8,198
4.250% 12/15/27	70,000	65,714
4.625% 12/15/29	120,000	109,703
CommonSpirit Health		
4.350% 11/01/42	20,000	16,973
Elevance Health, Inc.		
3.350% 12/01/24	120,000	116,372
3.650% 12/01/27	140,000	132,323
4.100% 5/15/32	60,000	56,005
4.550% 5/15/52	10,000	8,746
Fresenius Medical Care US Finance II, Inc.		
4.750% 10/15/24 (b)	70,000	68,720
HCA, Inc.		
3.500% 9/01/30	70,000	60,556
4.500% 2/15/27	40,000	38,603
5.000% 3/15/24	50,000	49,729
5.250% 6/15/26	60,000	59,301
5.500% 6/15/47	80,000	71,315
Humana, Inc.		
2.150% 2/03/32	40,000	31,325
4.500% 4/01/25	50,000	49,426
4.625% 12/01/42	70,000	61,361
4.800% 3/15/47	10,000	8,836
Tenet Healthcare Corp.		
4.375% 1/15/30 (b)	10,000	8,656
UnitedHealth Group, Inc.		
1.250% 1/15/26	110,000	99,821
2.000% 5/15/30	100,000	82,669
2.300% 5/15/31	20,000	16,702
3.125% 5/15/60	30,000	20,520
3.875% 12/15/28	110,000	105,113
3.875% 8/15/59	90,000	70,835
4.000% 5/15/29	100,000	95,545
4.200% 5/15/32	70,000	66,640
4.250% 6/15/48	110,000	95,681
4.450% 12/15/48	50,000	44,659
5.800% 3/15/36	70,000	74,107
		<u>1,841,573</u>

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Home Builders — 0.0%		
Lennar Corp.		
4.500% 4/30/24	\$ 100,000	\$ 98,698
4.750% 11/29/27	40,000	38,542
MDC Holdings, Inc.		
6.000% 1/15/43	20,000	16,455
		<u>153,695</u>
Insurance — 1.0%		
Ambac Assurance Corp.		
5.100% (b) (d)	4,362	6,106
Berkshire Hathaway Finance Corp.		
4.250% 1/15/49	160,000	143,617
Brighthouse Financial, Inc.		
4.700% 6/22/47	11,000	8,111
Chubb INA Holdings, Inc.		
3.350% 5/03/26	120,000	114,911
Guardian Life Global Funding		
1.100% 6/23/25 (b)	120,000	108,777
Jackson National Life Global Funding SOFR + 1.50%		
0.000% FRN6/28/24 (b)	3,450,000	3,450,686
MetLife Capital Trust IV		
7.875% 12/15/67 (b)	200,000	216,022
New York Life Global Funding		
0.950% 6/24/25 (b)	100,000	90,620
Principal Life Global Funding II		
1.250% 6/23/25 (b)	110,000	100,121
Teachers Insurance & Annuity Association of America		
4.900% 9/15/44 (b)	50,000	45,984
6.850% 12/16/39 (b)	22,000	24,335
		<u>4,309,290</u>
Internet — 1.2%		
Alphabet, Inc.		
0.450% 8/15/25	50,000	45,106
1.900% 8/15/40	100,000	66,808
2.050% 8/15/50	60,000	35,333
Amazon.com, Inc.		
2.100% 5/12/31	80,000	65,597
2.500% 6/03/50	60,000	38,260
3.150% 8/22/27	470,000	442,648
3.300% 4/13/27	40,000	38,018
3.450% 4/13/29	80,000	74,917
3.600% 4/13/32	320,000	293,835
4.050% 8/22/47	100,000	86,134
4.250% 8/22/57	70,000	60,297
4.950% 12/05/44	180,000	178,572
Meta Platforms, Inc.		
4.450% 8/15/52	3,215,000	2,573,760
Prosus NV		
3.061% 7/13/31 (b)	570,000	441,028
3.832% 2/08/51 (b)	210,000	127,756
4.027% 8/03/50 (b)	310,000	194,700

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Tencent Holdings Ltd. 3.840% 4/22/51 (b)	\$ 320,000	\$ 228,425
		<u>4,991,194</u>
Investment Companies — 0.3%		
Golub Capital BDC, Inc. 2.500% 8/24/26	1,570,000	<u>1,334,595</u>
Iron & Steel — 0.1%		
ArcelorMittal SA 7.000% STEP 10/15/39	60,000	61,180
Vale Overseas Ltd. 6.875% 11/21/36	174,000	<u>183,689</u>
		<u>244,869</u>
Leisure Time — 0.0%		
VOC Escrow Ltd. 5.000% 2/15/28 (b)	210,000	<u>180,621</u>
Lodging — 0.4%		
Las Vegas Sands Corp. 2.900% 6/25/25	100,000	92,003
3.200% 8/08/24	790,000	750,661
Sands China Ltd. 4.300% STEP 1/08/26	280,000	258,381
5.625% STEP 8/08/25	750,000	<u>718,388</u>
		<u>1,819,433</u>
Machinery – Construction & Mining — 0.0%		
Vertiv Group Corp. 4.125% 11/15/28 (b)	30,000	<u>25,500</u>
Machinery – Diversified — 0.1%		
Deere & Co. 3.100% 4/15/30	60,000	53,880
3.750% 4/15/50 (c)	260,000	221,365
Otis Worldwide Corp. 2.056% 4/05/25	140,000	<u>131,086</u>
		<u>406,331</u>
Media — 1.1%		
CCO Holdings LLC/CCO Holdings Capital Corp. 4.500% 8/15/30 (b)	30,000	24,785
4.500% 5/01/32	840,000	669,186
4.750% 2/01/32 (b)	70,000	56,749
Charter Communications Operating LLC/Charter Communications Operating Capital 3.500% 3/01/42	60,000	38,899
4.200% 3/15/28	190,000	174,913
4.400% 4/01/33	140,000	120,219
4.800% 3/01/50	100,000	72,796
4.908% 7/23/25	270,000	264,843
5.050% 3/30/29	360,000	339,070
5.125% 7/01/49	100,000	76,052
5.375% 4/01/38	100,000	83,386
5.375% 5/01/47	20,000	15,772
5.500% 4/01/63	80,000	61,364

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
6.484% 10/23/45	\$ 160,000	\$ 144,901
6.834% 10/23/55	60,000	55,616
Comcast Corp.		
2.800% 1/15/51	30,000	19,079
2.887% 11/01/51	320,000	206,721
3.150% 3/01/26	280,000	266,886
3.250% 11/01/39	30,000	23,494
3.300% 4/01/27	120,000	113,249
3.400% 4/01/30	180,000	164,458
3.400% 7/15/46	30,000	22,074
3.450% 2/01/50	40,000	29,231
3.750% 4/01/40	80,000	66,360
3.969% 11/01/47	80,000	63,955
3.999% 11/01/49	20,000	15,877
4.000% 8/15/47	20,000	16,090
4.000% 3/01/48	50,000	39,966
4.150% 10/15/28	180,000	172,937
4.250% 10/15/30	230,000	220,623
4.250% 1/15/33	20,000	18,876
4.950% 10/15/58	10,000	9,118
6.500% 11/15/35	41,000	45,792
CSC Holdings LLC		
6.500% 2/01/29 (b)	250,000	204,375
DISH DBS Corp.		
5.250% 12/01/26 (b)	120,000	101,080
5.750% 12/01/28 (b)	120,000	95,775
Fox Corp.		
5.476% 1/25/39	90,000	82,299
Time Warner Cable Enterprises LLC		
8.375% 7/15/33	20,000	22,288
Time Warner Cable, Inc.		
6.550% 5/01/37	50,000	47,795
6.750% 6/15/39	120,000	113,840
7.300% 7/01/38	100,000	99,475
Virgin Media Secured Finance PLC		
5.500% 5/15/29 (b)	210,000	188,114
The Walt Disney Co.		
6.200% 12/15/34	20,000	21,824
6.650% 11/15/37	50,000	56,395
		<u>4,746,597</u>
Mining — 0.7%		
Anglo American Capital PLC		
4.750% 4/10/27 (b)	230,000	222,462
Barrick North America Finance LLC		
5.700% 5/30/41	80,000	80,774
5.750% 5/01/43	80,000	81,302
BHP Billiton Finance USA Ltd.		
5.000% 9/30/43	100,000	97,520
First Quantum Minerals Ltd.		
6.875% 10/15/27 (b) (c)	230,000	215,791
Freeport-McMoRan, Inc.		
4.550% 11/14/24	10,000	9,860
4.625% 8/01/30	120,000	111,796
5.450% 3/15/43	466,000	420,351
Glencore Funding LLC		
3.875% 10/27/27 (b)	90,000	84,010

4.000% 3/27/27 (b)

270,000

255,179

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.125% 5/30/23 (b)	\$ 130,000	\$ 129,324
4.125% 3/12/24 (b)	130,000	127,956
Hudbay Minerals, Inc.		
6.125% 4/01/29 (b)	10,000	9,049
Southern Copper Corp.		
5.250% 11/08/42	1,230,000	1,173,162
Teck Resources Ltd.		
6.000% 8/15/40	20,000	19,182
		<u>3,037,718</u>
Miscellaneous - Manufacturing — 0.1%		
3M Co.		
2.375% 8/26/29 (c)	140,000	119,068
3.050% 4/15/30 (c)	60,000	52,746
3.700% 4/15/50 (c)	150,000	115,622
Eaton Corp.		
4.150% 11/02/42	40,000	34,336
		<u>321,772</u>
Oil & Gas — 2.6%		
BP Capital Markets America, Inc.		
3.000% 2/24/50	340,000	228,768
3.119% 5/04/26	290,000	275,226
3.588% 4/14/27	100,000	95,386
3.633% 4/06/30	120,000	110,351
Chevron Corp.		
1.995% 5/11/27	110,000	98,941
3.078% 5/11/50	20,000	14,593
Chevron USA, Inc.		
3.850% 1/15/28	300,000	290,037
ConocoPhillips Co.		
6.950% 4/15/29	75,000	83,147
Continental Resources, Inc.		
2.268% 11/15/26 (b)	70,000	60,637
4.375% 1/15/28	130,000	118,165
5.750% 1/15/31 (b)	250,000	232,794
Coterra Energy, Inc.		
3.900% 5/15/27	310,000	289,877
4.375% 3/15/29	220,000	208,348
Devon Energy Corp.		
4.750% 5/15/42 (c)	10,000	8,519
5.000% 6/15/45	440,000	382,179
5.250% 10/15/27	32,000	31,714
5.600% 7/15/41	140,000	131,378
5.850% 12/15/25	120,000	122,210
5.875% 6/15/28	26,000	26,318
7.875% 9/30/31 (c)	330,000	373,476
8.250% 8/01/23	30,000	30,408
Diamondback Energy, Inc.		
3.250% 12/01/26	10,000	9,315
3.500% 12/01/29	160,000	140,765
6.250% 3/15/33	1,620,000	1,647,637
Ecopetrol SA		
5.875% 5/28/45	770,000	536,274
EOG Resources, Inc.		
3.900% 4/01/35	200,000	179,184
4.150% 1/15/26	70,000	68,703

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.375% 4/15/30	\$ 60,000	\$ 58,249
4.950% 4/15/50	190,000	182,200
EQT Corp.		
3.900% 10/01/27	280,000	258,563
6.125% STEP 2/01/25	20,000	20,047
7.000% STEP 2/01/30 (c)	50,000	51,856
Exxon Mobil Corp.		
2.992% 3/19/25	340,000	327,824
3.043% 3/01/26	130,000	124,135
3.482% 3/19/30	190,000	177,479
4.114% 3/01/46	200,000	170,655
4.327% 3/19/50	20,000	17,643
Hess Corp.		
7.300% 8/15/31	210,000	228,684
7.875% 10/01/29	110,000	122,212
KazMunayGas National Co. JSC		
5.375% 4/24/30 (b)	200,000	178,674
Occidental Petroleum Corp.		
4.400% 4/15/46	40,000	31,241
4.625% 6/15/45	80,000	64,255
6.600% 3/15/46	630,000	648,264
Petrobras Global Finance BV		
5.999% 1/27/28 (c)	780,000	775,398
Petroleos Mexicanos		
6.375% 1/23/45	220,000	136,318
6.625% 6/15/35 (c)	303,000	219,948
6.875% 8/04/26	160,000	151,124
Pioneer Natural Resources Co.		
1.125% 1/15/26	40,000	35,691
2.150% 1/15/31	190,000	151,168
Reliance Industries Ltd.		
3.625% 1/12/52 (b)	330,000	218,168
Shell International Finance BV		
2.750% 4/06/30	160,000	140,627
2.875% 5/10/26	130,000	122,632
3.250% 4/06/50	230,000	166,210
4.000% 5/10/46	180,000	147,744
4.550% 8/12/43	100,000	90,622
Sinopec Group Overseas Development Ltd.		
4.375% 4/10/24 (b)	330,000	327,545
Southwestern Energy Co.		
4.750% 2/01/32 (c)	60,000	51,275
5.375% 3/15/30	20,000	18,240
		<u>11,209,041</u>
Oil & Gas Services — 0.0%		
Halliburton Co.		
3.800% 11/15/25	2,000	1,947
4.850% 11/15/35	20,000	18,591
5.000% 11/15/45	110,000	97,776
Schlumberger Holdings Corp.		
3.900% 5/17/28 (b)	31,000	28,934
		<u>147,248</u>
Packaging & Containers — 0.0%		
Ball Corp.		
3.125% 9/15/31 (c)	100,000	<u>80,313</u>

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pharmaceuticals — 1.5%		
AbbVie, Inc.		
2.600% 11/21/24	\$ 550,000	\$ 526,420
2.950% 11/21/26	260,000	242,087
3.200% 11/21/29	600,000	543,140
3.600% 5/14/25	130,000	126,090
3.800% 3/15/25	180,000	175,576
4.250% 11/21/49	20,000	16,856
4.550% 3/15/35	90,000	84,535
4.875% 11/14/48	20,000	18,352
Becton Dickinson and Co.		
3.363% 6/06/24	82,000	80,133
4.685% 12/15/44	18,000	16,152
Bristol-Myers Squibb Co.		
2.900% 7/26/24	206,000	200,052
3.200% 6/15/26	204,000	194,690
3.400% 7/26/29	19,000	17,657
Cigna Corp.		
3.750% 7/15/23	161,000	159,933
4.125% 11/15/25	100,000	97,770
4.375% 10/15/28	160,000	154,610
4.800% 8/15/38	240,000	223,432
4.900% 12/15/48	100,000	90,768
CVS Health Corp.		
1.875% 2/28/31	30,000	23,622
2.125% 9/15/31	140,000	111,391
3.750% 4/01/30	150,000	136,729
4.125% 4/01/40	120,000	100,366
4.250% 4/01/50	30,000	24,051
4.300% 3/25/28	208,000	201,527
5.050% 3/25/48	320,000	288,669
5.125% 7/20/45	100,000	90,738
CVS Pass-Through Trust		
5.298% 1/11/27 (b)	4,379	4,334
5.880% 1/10/28	56,861	56,288
6.036% 12/10/28	52,943	52,199
6.943% 1/10/30	49,540	50,507
Johnson & Johnson		
0.950% 9/01/27	40,000	34,502
3.625% 3/03/37	320,000	283,692
Merck & Co., Inc.		
0.750% 2/24/26	200,000	177,283
1.450% 6/24/30	120,000	96,022
2.750% 12/10/51	200,000	134,286
Pfizer, Inc.		
1.700% 5/28/30 (c)	340,000	280,260
Teva Pharmaceutical Finance Netherlands BV		
7.125% 1/31/25	390,000	387,812
Teva Pharmaceutical Finance Netherlands III BV		
3.150% 10/01/26	900,000	787,050
6.000% 4/15/24	350,000	343,029
		<u>6,632,610</u>
Pipelines — 1.6%		
Cameron LNG LLC		
2.902% 7/15/31 (b)	40,000	33,858
3.302% 1/15/35 (b)	130,000	105,195

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Cheniere Energy Partners LP		
3.250% 1/31/32 (b)	\$ 170,000	\$ 135,163
El Paso Natural Gas Co. LLC		
8.375% 6/15/32	289,000	327,808
Energy Transfer LP		
2.900% 5/15/25	170,000	160,319
3.750% 5/15/30	430,000	380,384
4.950% 6/15/28	50,000	48,434
5.250% 4/15/29	80,000	77,593
5.300% 4/01/44	20,000	16,985
5.400% 10/01/47	40,000	33,814
6.100% 2/15/42	140,000	129,040
3 mo. USD LIBOR + 4.028% 6.250% VRN (d)	20,000	17,000
6.250% 4/15/49	260,000	243,285
5 year CMT + 5.694% 6.500% VRN (d)	50,000	43,208
5 year CMT + 5.134% 6.750% VRN (d)	160,000	138,400
5 year CMT + 5.306% 7.125% VRN (d)	150,000	125,250
Enterprise Products Operating LLC		
3.700% 1/31/51	260,000	188,877
4.150% 10/16/28	980,000	929,639
3 mo. USD LIBOR + 2.570% 5.375% VRN 2/15/78	40,000	30,561
5.700% 2/15/42	40,000	38,964
EQM Midstream Partners LP		
5.500% 7/15/28	10,000	8,942
Kinder Morgan Energy Partners LP		
5.500% 3/01/44	30,000	27,299
Kinder Morgan, Inc.		
4.300% 3/01/28	110,000	105,553
5.200% 3/01/48	20,000	17,460
MPLX LP		
4.500% 4/15/38	70,000	59,282
4.700% 4/15/48	210,000	166,730
4.800% 2/15/29	190,000	182,278
4.875% 12/01/24	90,000	89,309
5.500% 2/15/49	100,000	88,526
Southern Natural Gas Co. LLC		
8.000% 3/01/32	148,000	162,827
Tallgrass Energy Partners LP / Tallgrass Energy Finance Corp.		
6.000% 12/31/30 (b)	10,000	8,647
Targa Resources Corp.		
4.200% 2/01/33	100,000	86,357
4.950% 4/15/52	40,000	31,818
Targa Resources Partners LP/Targa Resources Partners Finance Corp.		
4.875% 2/01/31	130,000	116,683
Tennessee Gas Pipeline Co. LLC		
2.900% 3/01/30 (b)	200,000	168,045
Transcontinental Gas Pipe Line Co. LLC		
7.850% 2/01/26	60,000	64,096
Venture Global Calcasieu Pass LLC		
3.875% 11/01/33 (b)	80,000	65,352
Western Midstream Operating LP		
3.350% STEP 2/01/25	240,000	227,218
4.300% STEP 2/01/30	900,000	778,519
3 mo. USD LIBOR + 1.100% 5.041% FRN 1/13/23	90,000	89,865
5.500% 8/15/48	20,000	16,599
5.500% STEP 2/01/50	230,000	187,407

The Williams Cos., Inc.
3.750% 6/15/27

170,000

160,281

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
7.500% 1/15/31	\$ 200,000	\$ 219,522
7.750% 6/15/31	350,000	387,041
		<u>6,719,433</u>
Real Estate Investment Trusts (REITS) — 0.4%		
CTR Partnership LP / CareTrust Capital Corp.		
3.875% 6/30/28 (b)	20,000	16,900
Equinix, Inc.		
2.500% 5/15/31	1,641,000	1,322,901
GLP Capital LP/GLP Financing II, Inc.		
5.250% 6/01/25	10,000	9,823
5.375% 4/15/26	40,000	39,253
MPT Operating Partnership LP / MPT Finance Corp.		
3.500% 3/15/31 (c)	110,000	75,403
4.625% 8/01/29 (c)	10,000	7,626
5.000% 10/15/27 (c)	30,000	25,216
WEA Finance LLC/Westfield UK & Europe Finance PLC		
3.750% 9/17/24 (b)	220,000	208,022
		<u>1,705,144</u>
Retail — 1.1%		
Costco Wholesale Corp.		
1.375% 6/20/27	190,000	166,677
1.600% 4/20/30	110,000	90,299
The Home Depot, Inc.		
2.700% 4/15/30	70,000	61,067
3.300% 4/15/40	120,000	96,147
3.350% 4/15/50	220,000	163,827
3.900% 12/06/28	30,000	28,929
3.900% 6/15/47	40,000	33,103
Lowe's Cos., Inc.		
4.500% 4/15/30	50,000	48,046
5.625% 4/15/53	2,341,000	2,225,859
McDonald's Corp.		
3.300% 7/01/25	60,000	58,045
3.500% 7/01/27	180,000	171,003
3.600% 7/01/30	190,000	174,734
3.625% 9/01/49	40,000	30,275
3.800% 4/01/28	110,000	105,439
4.200% 4/01/50	140,000	117,366
Starbucks Corp.		
2.550% 11/15/30	990,000	834,872
Target Corp.		
2.250% 4/15/25	110,000	104,374
Walmart, Inc.		
1.500% 9/22/28	80,000	68,715
1.800% 9/22/31	40,000	32,672
		<u>4,611,449</u>
Semiconductors — 0.3%		
Broadcom, Inc.		
3.137% 11/15/35 (b)	490,000	361,938
Intel Corp.		
1.600% 8/12/28	190,000	161,718
3.050% 8/12/51	90,000	58,759
3.700% 7/29/25	40,000	39,052

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.750% 3/25/50	\$ 20,000	\$ 17,399
NVIDIA Corp.		
2.850% 4/01/30	90,000	78,593
3.500% 4/01/40	240,000	195,587
3.500% 4/01/50	170,000	128,743
3.700% 4/01/60	170,000	126,519
NXP BV / NXP Funding LLC / NXP USA, Inc.		
2.700% 5/01/25	120,000	113,033
Texas Instruments, Inc.		
1.750% 5/04/30	110,000	90,762
		<u>1,372,103</u>
Software — 0.4%		
Microsoft Corp.		
2.400% 8/08/26	530,000	494,435
2.525% 6/01/50	133,000	88,562
2.921% 3/17/52	107,000	76,432
3.041% 3/17/62	83,000	57,967
3.300% 2/06/27	290,000	279,774
Open Text Holdings, Inc.		
4.125% 2/15/30 (b)	10,000	8,047
4.125% 12/01/31 (b)	10,000	7,773
Oracle Corp.		
1.650% 3/25/26	300,000	269,151
2.875% 3/25/31	350,000	291,214
2.950% 4/01/30	20,000	17,137
Salesforce, Inc.		
3.250% 4/11/23	60,000	59,784
3.700% 4/11/28	50,000	48,051
Workday, Inc.		
3.500% 4/01/27	50,000	46,806
3.700% 4/01/29	80,000	73,367
3.800% 4/01/32 (c)	100,000	88,609
		<u>1,907,109</u>
Telecommunications — 1.9%		
Altice France SA		
5.500% 10/15/29 (b)	210,000	160,131
AT&T, Inc.		
1.650% 2/01/28	280,000	236,891
2.250% 2/01/32	20,000	15,735
2.300% 6/01/27	250,000	222,784
2.550% 12/01/33	1,220,000	941,222
3.300% 2/01/52 (c)	40,000	26,805
3.500% 9/15/53	180,000	121,387
3.550% 9/15/55	323,000	216,489
3.650% 9/15/59	60,000	40,363
3.800% 12/01/57	10,000	6,954
4.350% 6/15/45	101,000	81,952
5.350% 9/01/40	40,000	38,318
5.550% 8/15/41	40,000	38,507
CommScope, Inc.		
4.750% 9/01/29 (b)	20,000	16,124
6.000% 3/01/26 (b)	60,000	55,147
Sprint Capital Corp.		
8.750% 3/15/32	20,000	23,802

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Sprint Spectrum Co. LLC/Sprint Spectrum Co. II LLC/Sprint Spectrum Co. III LLC		
4.738% 9/20/29 (b)	\$ 123,750	\$ 122,340
T-Mobile USA, Inc.		
2.250% 2/15/26	70,000	63,655
2.250% 11/15/31	70,000	55,240
2.550% 2/15/31	130,000	106,589
2.625% 2/15/29	230,000	194,792
2.875% 2/15/31	170,000	140,408
3.000% 2/15/41	60,000	42,401
3.300% 2/15/51	20,000	13,355
3.375% 4/15/29	70,000	61,646
3.500% 4/15/25	350,000	336,816
3.500% 4/15/31	440,000	379,803
3.750% 4/15/27	50,000	47,159
3.875% 4/15/30	190,000	172,560
5.650% 1/15/53	1,232,000	1,202,393
Telefonica Emisiones SA		
5.213% 3/08/47	150,000	121,204
Verizon Communications, Inc.		
1.750% 1/20/31	280,000	217,939
2.355% 3/15/32	40,000	31,752
2.550% 3/21/31	570,000	469,546
2.650% 11/20/40	260,000	176,683
2.875% 11/20/50	530,000	333,075
3.400% 3/22/41	40,000	30,207
3.850% 11/01/42	40,000	31,904
3.875% 2/08/29	130,000	122,237
4.000% 3/22/50	120,000	94,696
4.125% 8/15/46	180,000	143,897
4.329% 9/21/28	440,000	423,842
4.400% 11/01/34	270,000	248,273
4.500% 8/10/33	40,000	37,586
5.250% 3/16/37	170,000	168,727
5.500% 3/16/47	30,000	29,159
Vmed O2 UK Financing I PLC		
4.750% 7/15/31 (b)	200,000	163,177
		<u>8,025,672</u>
Transportation — 0.1%		
Union Pacific Corp.		
2.150% 2/05/27	50,000	45,211
2.891% 4/06/36	270,000	215,630
3.750% 7/15/25	70,000	68,073
3.750% 2/05/70	150,000	110,011
3.839% 3/20/60	120,000	93,503
XPO, Inc.		
6.250% 5/01/25 (b)	9,000	9,085
		<u>541,513</u>
TOTAL CORPORATE DEBT		
(Cost \$149,493,477)		<u>135,883,083</u>
MUNICIPAL OBLIGATIONS — 0.0%		
State of California, General Obligation		
5.000% 11/01/43	50,000	<u>50,558</u>

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL MUNICIPAL OBLIGATIONS (Cost \$50,430)		\$ 50,558
NON-U.S. GOVERNMENT AGENCY OBLIGATIONS — 8.2%		
Automobile Asset-Backed Securities — 0.6%		
Avis Budget Rental Car Funding AESOP LLC, Series 2021-1A, Class A 1.380% 8/20/27 (b)	\$ 490,000	427,427
Hertz Vehicle Financing III LP, Series 2021-2A, Class C 2.520% 12/27/27 (b)	2,500,000	<u>2,012,242</u> <u>2,439,669</u>
Commercial Mortgage-Backed Securities — 3.2%		
Banc of America Merrill Lynch Trust, Series 2016-GG10, Class AJA, 5.621% VRN 8/10/45 (b) (e)	382,424	95,606
BANK, Series 2017-BNK4, Class XA, 1.342% VRN 5/15/50 (e)	3,042,172	131,282
Benchmark Mortgage Trust, Series 2021-B29, Class XA, 1.042% VRN 9/15/54 (e)	2,508,334	138,967
BPR Trust, Series 2021-TY, Class A, 1 mo. USD LIBOR + 1.050% 5.368% FRN 9/15/38 (b)	140,000	131,952
BX Commercial Mortgage Trust Series 2021-VINO, Class A, 1 mo. USD LIBOR + .652% 4.970% FRN 5/15/38 (b)	830,000	799,168
Series 2021-21M, Class A, 1 mo. USD LIBOR + .730% 5.048% FRN 10/15/36 (b)	722,661	694,457
Citigroup Commercial Mortgage Trust, Series 2014-GC23, Class B, 4.175% VRN 7/10/47 (e)	350,000	331,254
Credit Suisse Mortgage Trust Series 2014-USA, Class A2, 3.953% 9/15/37 (b)	190,000	171,344
Series 2014-USA, Class E, 4.373% 9/15/37 (b)	140,000	77,634
Series 2014-USA, Class F, 4.373% 9/15/37 (b)	2,440,000	1,177,707
Series 2022-MARK, Class A, 1 mo. TSFR + 2.695% 7.031% FRN 6/15/39 (b)	130,000	128,472
Series 2017-CHOP, Class G, 1 mo. USD LIBOR + 5.350% 9.668% FRN 7/15/32 (b)	1,160,000	1,043,724
Deutsche Bank Commercial Mortgage Trust, Series 2016-C3, Class A4 2.632% 8/10/49	160,000	145,628
GS Mortgage Securities Trust, Series 2018-SRP5, Class A, 1 mo. USD LIBOR + 1.800% 6.118% FRN 9/15/31 (b)	1,228,563	1,067,145
JPMBB Commercial Mortgage Securities Trust Series 2014-C19, Class XA, 0.620% VRN 4/15/47 (e)	991,047	5,600
Series 2015-C31, Class B, 4.622% VRN 8/15/48 (e)	160,000	138,853
Series 2013-C17, Class B, 4.883% VRN 1/15/47 (e)	30,000	29,006
ML-CFC Commercial Mortgage Trust, Series 2007-9, Class AJ, 6.193% VRN 9/12/49 (e)	2,926	2,765
MTN Commercial Mortgage Trust, Series 2022-LPFL, Class A, 1 mo. TSFR + 1.397% 5.733% FRN 3/15/39 (b)	190,000	184,948
PFP Ltd., Series 2021-8, Class A, 1 mo. USD LIBOR + 1.000% 5.326% FRN 8/09/37 (b)	659,278	628,409
Shops at Crystals Trust, Series 2016-CSTL, Class A 3.126% 7/05/36 (b)	320,000	277,551
TTAN, Series 2021-MHC, Class A, 1 mo. USD LIBOR + .850% 5.168% FRN 3/15/38 (b)	463,810	449,334
UBS Commercial Mortgage Trust, Series 2017-C1, Class A4 3.460% 6/15/50	170,000	156,639

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Waterfall Commercial Mortgage Trust, Series 2015-SBC5, Class A 4.104% 9/14/49 (b)	\$ 45,472	\$ 44,756
Wells Fargo Commercial Mortgage Trust		
Series 2019-C52, Class XA, 1.604% VRN 8/15/52 (e)	5,541,528	394,153
Series 2017-C42, Class D, 2.800% VRN 12/15/50 (b) (e)	710,000	466,969
Series 2013-LC12, Class B, 4.296% VRN 7/15/46 (e)	140,000	130,776
WFRBS Commercial Mortgage Trust		
Series 2014-C24, Class B, 4.204% VRN 11/15/47 (e)	190,000	171,492
Series 2014-C24, Class C, 4.290% VRN 11/15/47 (e)	190,000	161,471
Series 2014-LC14, Class D, 4.586% VRN 3/15/47 (b) (e)	5,000,000	4,599,895
		<u>13,976,957</u>
Home Equity Asset-Backed Securities — 0.5%		
Asset Backed Securities Corp. Home Equity Loan Trust, Series 2003-HE6, Class A3B, 1 mo. USD LIBOR + .960%		
5.349% FRN 11/25/33	1,198,762	1,140,433
GSA Home Equity Trust, Series 2006-5, Class 2A3, 1 mo. USD LIBOR + .540%		
4.929% FRN 3/25/36	311,843	142,830
RBSSP Resecuritization Trust, Series 2010-4, Class 6A2, 5.825% STEP 2/26/36 (b)	646,546	615,138
		<u>1,898,401</u>
Manufactured Housing Asset-Backed Securities — 0.1%		
Conseco Finance Corp., Series 1996-4, Class M1, 7.750% VRN 6/15/27 (e)	428,497	441,253
Other Asset-Backed Securities — 2.1%		
Arbor Realty Commercial Real Estate Notes Ltd., Series 2021-FL3, Class A, 1 mo. USD LIBOR + 1.070%		
5.388% FRN 8/15/34 (b)	790,000	748,240
Dividend Solar Loans LLC, Series 2019-1, Class A 3.670% 8/22/39 (b)	742,088	672,997
First Franklin Mortgage Loan Trust, Series 2006-FF15, Class A2, 1 mo. USD LIBOR + .120%		
4.509% FRN 11/25/36	282,843	258,276
InStar Leasing III LLC, Series 2021-1A, Class A 2.300% 2/15/54 (b)	572,410	473,597
Magnolia Finance, Series 2019-1OTF, Class A1, 3 mo. USD LIBOR + 2.900%		
7.315% FRN 8/09/24 (b)	940,000	919,641
Mortgage Repurchase Agreement Financing Trust II, Series 2022-S1 , Class A1, 30 day SOFR + 2.000%		
5.805% FRN 3/30/25 (b)	290,000	285,887
Mosaic Solar Loans LLC, Series 2021-3A, Class B 1.920% 6/20/52 (b)	811,811	612,455
PFCA Home Equity Investment Trust, Series 2003-IFC6, Class A, 4.769% VRN 4/22/35 (b) (e)	380,671	354,739
Saxon Asset Securities Trust, Series 2006-3, Class A4, 1 mo. USD LIBOR + .240%		
4.629% FRN 10/25/46	440,000	372,734
Structured Asset Investment Loan Trust, Series 2004-8, Class A9, 1 mo. USD LIBOR + 1.000%		
5.389% FRN 9/25/34	597,120	583,185
Taco Bell Funding LLC, Series 2021-1A, Class A23 2.542% 8/25/51 (b)	3,960,000	3,031,658
US Small Business Administration		

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2019-25G, Class 1, 2.690% 7/01/44	\$ 203,018	\$ 172,880
Series 2019-20D, Class 1, 2.980% 4/01/39	134,852	124,021
USQ Rail LLC, Series 2021-1A, Class A 2.250% 2/28/51 (b)	712,121	598,919
		<u>9,209,229</u>
Student Loans Asset-Backed Securities — 0.4%		
College Ave Student Loans LLC, Series 2019-A, Class A2 3.280% 12/28/48 (b)	252,867	236,552
Navient Private Education Refi Loan Trust, Series 2020-IA, Class A1A 1.330% 4/15/69 (b)	385,809	327,227
SLM Student Loan Trust, Series 2003-7A, Class A5A, 3 mo. USD LIBOR + 1.200% 5.969% FRN 12/15/33 (b)	305,484	298,144
SMB Private Education Loan Trust Series 2020-A, Class A2A, 2.230% 9/15/37 (b)	436,001	397,275
Series 2021-A, Class B, 2.310% 1/15/53 (b)	600,000	504,189
		<u>1,763,387</u>
Whole Loan Collateral Collateralized Mortgage Obligations — 1.2%		
Bear Stearns Asset -Backed Securities I Trust, Series 2005-AC8, Class A3, 1 mo. USD LIBOR + 7.650% 3.261% FRN 11/25/35	634,147	96,706
BRAVO Residential Funding Trust, Series 2022-NQM3, Class A1, 5.108% VRN 7/25/62 (b) (e)	336,271	335,235
Citigroup Mortgage Loan Trust, Series 2007-6, Class 2A4, 1 mo. USD LIBOR + .350% 4.739% FRN 5/25/37	1,361,928	729,106
Credit Suisse Mortgage Trust, Series 2015-4R, Class 3A3, 1 mo. USD LIBOR + .310% 3.304% FRN 10/27/36 (b)	676,675	314,385
Flagstar Mortgage Trust, Series 2018-2, Class A4, 3.500% VRN 4/25/48 (b) (e)	17,543	17,156
GS Mortgage Securities Trust, Series 2014-2R, Class 3B 0.702% 11/26/37 (b)	1,220,000	1,033,653
GSR Mortgage Loan Trust, Series 2005-AR5, Class 2A3, 3.557% VRN 10/25/35 (e)	44,845	24,752
HarborView Mortgage Loan Trust, Series 2006-2, Class 1A, 3.721% VRN 2/25/36 (e)	27,306	9,925
JP Morgan Mortgage Trust Series 2018-3, Class A1, 3.500% VRN 9/25/48 (b) (e)	244,539	211,619
Series 2018-4, Class A1, 3.500% VRN 10/25/48 (b) (e)	103,980	90,149
Series 2018-5, Class A1, 3.500% VRN 10/25/48 (b) (e)	130,847	113,300
New Residential Mortgage Loan Trust Series 2018-RPL1, Class M2, 3.500% VRN 12/25/57 (b) (e)	730,000	577,820
Series 2017-4A, Class A1, 4.000% VRN 5/25/57 (b) (e)	223,504	207,147
Prime Mortgage Trust Series 2006-DR1, Class 1A1, 5.500% 5/25/35 (b)	4,478	4,365
Series 2006-DR1, Class 2A2, 6.000% 5/25/35 (b)	479,138	408,057
Structured Adjustable Rate Mortgage Loan Trust, Series 2006-7, Class 1A1, 3.513% VRN 8/25/36 (e)	156,050	109,031
Structured Asset Mortgage Investments, Inc., Series 2005-AR7, Class 4A1, 12 mo. MTA + 2.150% 4.198% FRN 3/25/46	167,660	156,693
Towd Point Mortgage Trust Series 2017-4, Class B2, 3.461% VRN 6/25/57 (b) (e)	740,000	541,953

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2022-4, Class A1, 3.750% 9/25/62 (b) (e)	\$ 419,473	\$ 389,989
		5,371,041
Whole Loan Collateral Planned Amortization Classes — 0.0%		
Countrywide Alternative Loan Trust, Series 2006-18CB, Class A6, 1 mo. USD LIBOR + 28.600%		
11.045% FRN 7/25/36	40,948	33,392
Whole Loan Collateral Support Collateralized Mortgage Obligations — 0.1%		
Washington Mutual Mortgage Pass-Through Certificates, Series 2006-AR3, Class A1B, 12 mo. MTA + 1.000%		
3.048% FRN 2/25/46	454,890	390,981
TOTAL NON-U.S. GOVERNMENT AGENCY OBLIGATIONS (Cost \$40,593,636)		35,524,310
SOVEREIGN DEBT OBLIGATIONS — 3.9%		
Argentine Republic Government International Bond		
1.500% STEP 7/09/35	1,927,319	488,563
3.500% STEP 7/09/41	110,000	31,017
Brazilian Government International Bond		
5.000% 1/27/45	810,000	600,062
5.625% 1/07/41	730,000	617,217
Colombia Government International Bond		
3.250% 4/22/32	430,000	312,616
4.125% 2/22/42	440,000	276,063
Indonesia Government International Bond		
5.125% 1/15/45 (b)	220,000	212,315
6.500% 2/15/31 IDR (f)	58,983,000,000	3,677,084
Israel Government International Bond		
2.750% 7/03/30	310,000	281,247
Mexican Bonos		
7.750% 11/23/34 MXN (f)	17,120,000	793,521
7.750% 11/13/42 MXN (f)	46,165,600	2,067,164
8.000% 11/07/47 MXN (f)	76,980,000	3,521,964
8.500% 5/31/29 MXN (f)	28,500,000	1,422,053
Mexico Government International Bond		
4.750% 3/08/44	830,000	669,001
Nigeria Government International Bond		
7.143% 2/23/30 (b)	210,000	160,579
Panama Government International Bond		
4.500% 4/01/56	350,000	254,783
Peruvian Government International Bond		
6.550% 3/14/37	210,000	220,617
Provincia de Buenos Aires/Government Bond, 5.250% STEP 9/01/37 (b)	540,019	186,307
Republic of Kenya Government International Bond		
6.300% 1/23/34 (b)	370,000	284,160
Russian Federal Bond— OFZ		
6.900% 5/23/29 RUB (f)	128,828,000	471,641
7.250% 5/10/34 RUB (f)	60,500,000	221,492

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
7.700% 3/16/39 RUB (f)	\$ 86,260,000	\$ 315,799
		17,085,265
TOTAL SOVEREIGN DEBT OBLIGATIONS (Cost \$24,250,856)		17,085,265
U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (g) — 28.2%		
Collateralized Mortgage Obligations — 1.9%		
Federal Home Loan Mortgage Corp.		
Series 3422, Class AI, 0.250% STEP 1/15/38	6,976	49
Series 353, Class S1, 1 mo. USD LIBOR + 6.000% 1.682% FRN 12/15/46	213,456	21,199
Series 334, Class S7, 1 mo. USD LIBOR + 6.100% 1.782% FRN 8/15/44	88,260	8,992
Series 3621, Class SB, 1 mo. USD LIBOR + 6.230% 1.912% FRN 1/15/40	20,244	1,953
Series 4203, Class PS, 1 mo. USD LIBOR + 6.250% 1.932% FRN 9/15/42	83,883	6,265
Series 5018, Class MI, 2.000% 10/25/50	347,549	45,551
Series 3973, Class SA, 1 mo. USD LIBOR + 6.490% 2.172% FRN 12/15/41	128,170	14,302
Series 5140, Class NI, 2.500% 5/25/49	275,083	38,418
Series 5010, Class IK, 2.500% 9/25/50	208,757	30,225
Series 5010, Class JI, 2.500% 9/25/50	494,025	77,882
Series 5013, Class IN, 2.500% 9/25/50	253,386	40,310
Series 5040, Class IB, 2.500% 11/25/50	149,047	21,000
Series 5059, Class IB, 2.500% 1/25/51	700,293	111,569
Series 5069, Class MI, 2.500% 2/25/51	79,780	11,489
Series 4793, Class CB, 3.000% 5/15/48	195,848	177,239
Series 4793, Class CD, 3.000% 6/15/48	123,944	112,127
Series 4813, Class CJ, 3.000% 8/15/48	101,989	94,694
Series 5224, Class HL, 4.000% 4/25/52	400,000	360,951
Series R007, Class ZA, 6.000% 5/15/36	54,124	55,989
Federal Home Loan Mortgage Corp. Multifamily Structured Pass-Through Certificates		
Series K741, Class X1, 0.571% VRN 12/25/27 (e)	2,994,882	68,346
Series K094, Class X1, 0.880% VRN 6/25/29 (e)	994,527	44,742
Series K743, Class X1, 0.925% VRN 5/25/28 (e)	3,997,845	162,943
Series KC05, Class X1, 1.212% VRN 6/25/27 (e)	1,525,784	49,356
Series K736, Class X1, 1.289% VRN 7/25/26 (e)	2,040,961	75,200
Series K110, Class X1, 1.697% VRN 4/25/30 (e)	1,295,145	119,799
Series 2019-KF58, Class B, 1 mo. USD LIBOR + 2.150% 6.292% FRN 1/25/26 (b)	506,574	471,889
Federal Home Loan Mortgage Corp. REMICS		
Series 5085, Class NI, 2.000% 3/25/51	622,802	74,469
Series 4391, Class MZ, 3.000% 9/15/44	256,085	219,797
Federal National Mortgage Association		
Series 2006-88, Class IP, 0.000% VRN 3/25/36 (e)	25,204	1,323
Series 2005-88, Class IP, 0.031% FRN 10/25/35 (e)	20,609	1,343
Series 2006-59, Class IP, 0.155% FRN 7/25/36 (e)	55,766	793
Series 2013-124, Class SB, 1 mo. USD LIBOR + 5.950% 1.561% FRN 12/25/43	206,852	19,888
Series 2016-61, Class BS, 1 mo. USD LIBOR + 6.100% 1.711% FRN 9/25/46	74,142	5,281
Series 2017-76, Class SB, 1 mo. USD LIBOR + 6.100% 1.711% FRN 10/25/57	438,083	45,471
Series 2012-134, Class SK, 1 mo. USD LIBOR + 6.150% 1.761% FRN 12/25/42	121,392	14,294
Series 2012-133, Class CS, 1 mo. USD LIBOR + 6.150% 1.761% FRN 12/25/42	64,368	8,571
Series 2013-54, Class BS, 1 mo. USD LIBOR + 6.150% 1.761% FRN 6/25/43	154,589	16,795

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2017-85, Class SC, 1 mo. USD LIBOR + 6.200% 1.811% FRN 11/25/47	\$ 125,526	\$ 10,551
Series 2020-47, Class GZ, 2.000% 7/25/50	315,368	182,779
Series 2020-97, Class AI, 2.000% 1/25/51	180,604	23,237
Series 2012-35, Class SC, 1 mo. USD LIBOR + 6.500% 2.111% FRN 4/25/42	58,254	6,594
Series 2011-87, Class SG, 1 mo. USD LIBOR + 6.550% 2.161% FRN 4/25/40	49,970	905
Series 2011-96, Class SA, 1 mo. USD LIBOR + 6.550% 2.161% FRN 10/25/41	127,077	10,200
Series 2012-74, Class SA, 1 mo. USD LIBOR + 6.650% 2.261% FRN 3/25/42	31,764	2,386
Series 2020-56, Class DI, 2.500% 8/25/50	398,543	62,819
Series 2020-74, Class EI, 2.500% 10/25/50	157,262	23,778
Series 2020-89, Class DI, 2.500% 12/25/50	1,094,838	161,175
Series 2021-3, Class QI, 2.500% 2/25/51	740,122	111,523
Series 409, Class C2, 3.000% 4/25/27	38,358	1,514
Series 409, Class C13, 3.500% 11/25/41	50,676	7,501
Series 2006-118, Class IP2, 3.644% FRN 12/25/36 (e)	38,002	2,339
Series 409, Class C18, 4.000% 4/25/42	58,628	10,122
Series 2006-118, Class IP1, 4.076% FRN 12/25/36 (e)	46,941	3,026
Series 409, Class C22, 4.500% 11/25/39	38,783	6,774
Series 2011-59, Class NZ, 5.500% 7/25/41	255,674	263,631
Series 2013-9, Class CB, 5.500% 4/25/42	212,241	216,906
Series 2012-46, Class BA, 6.000% 5/25/42	52,718	54,212
Series 2012-28, Class B, 6.500% 6/25/39	3,894	3,956
Series 2013-9, Class BC, 6.500% 7/25/42	62,016	64,975
Series 2012-51, Class B, 7.000% 5/25/42	44,900	47,666
Federal National Mortgage Association ACES		
Series 2020-M36, Class X1, 1.498% VRN 9/25/34 (e)	1,199,029	98,494
Series 2019-M19, Class A2, 2.560% 9/25/29	434,068	389,559
Federal National Mortgage Association Grantor Trust		
Series 2017-T1, Class A 2.898% 6/25/27	99,394	93,131
Federal National Mortgage Association REMICS		
Series 2014-6, Class Z 2.500% 2/25/44	249,885	208,584
Government National Mortgage Association		
Series 2017-H20, Class IB, 0.155% VRN 10/20/67 (e)	55,174	2,368
Series 2017-H18, Class BI, 0.162% VRN 9/20/67 (e)	2,720,313	110,232
Series 2012-144, Class IO, 0.323% VRN 1/16/53 (e)	2,207,330	26,597
Series 2012-135, Class IO, 0.340% VRN 1/16/53 (e)	2,297,455	32,006
Series 2014-186, Class IO, 0.374% VRN 8/16/54 (e)	348,322	3,568
Series 2014-22, Class IA, 0.475% FRN 11/20/42 (e)	19,034	596
Series 2017-41, Class IO, 0.601% VRN 7/16/58 (e)	525,393	16,588
Series 2021-60, Class IO, 0.826% VRN 5/16/63 (e)	2,296,140	146,594
Series 2012-H27, Class AI, 1.697% VRN 10/20/62 (e)	304,027	10,064
Series 2017-H15, Class KI, 1.703% VRN 7/20/67 (e)	106,298	5,606
Series 2016-135, Class SB, 1 mo. USD LIBOR + 6.100% 1.774% FRN 10/16/46	103,045	14,273
Series 2016-21, Class ST, 1 mo. USD LIBOR + 6.150% 1.797% FRN 2/20/46	57,634	6,330
Series 2022-3, Class B, 1.850% 2/16/61	200,000	118,884
Series 2020-181, Class WI, 2.000% 12/20/50	1,348,126	147,278
Series 2010-85, Class HS, 1 mo. USD LIBOR + 6.650% 2.297% FRN 1/20/40	4,623	48
Series 2020-123, Class NI, 2.500% 8/20/50	404,914	54,488
Series 2020-123, Class IL, 2.500% 8/20/50	158,958	21,060
Series 2020-127, Class IN, 2.500% 8/20/50	159,591	21,764
Series 2020-129, Class IE, 2.500% 9/20/50	164,620	22,132

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2020-160, Class IH, 2.500% 10/20/50	\$ 167,890	\$ 23,147
Series 2020-160, Class YI, 2.500% 10/20/50	669,059	89,333
Series 2020-160, Class VI, 2.500% 10/20/50	246,786	33,885
Series 2022-115, Class MI, 2.500% 5/20/51	262,245	28,772
Series 2022-189, Class PT, 2.500% 10/20/51	297,994	248,077
Series 2013-107, Class AD, 2.846% VRN 11/16/47 (e)	155,245	143,266
Series 2020-H09, Class FL, 1 mo. USD LIBOR + 1.150% 2.880% FRN 5/20/70	383,086	380,641
Series 2020-H13, Class FA, 1 mo. USD LIBOR + .450% 2.980% FRN 7/20/70	131,003	128,119
Series 2022-196, Class BE, 3.000% 10/16/64	200,000	152,534
Series 2020-H13, Class FC, 1 mo. USD LIBOR + .450% 3.276% FRN 7/20/70	52,162	51,056
Series 2013-53, Class OI, 3.500% 4/20/43	304,899	31,937
Series 2020-47, Class MI, 3.500% 4/20/50	271,343	45,233
Series 2020-47, Class NI, 3.500% 4/20/50	73,971	12,457
Series 2014-176, Class IA, 4.000% 11/20/44	36,713	6,198
Series 2015-167, Class OI, 4.000% 4/16/45	46,899	8,208
Series 2018-H07, Class FD, 1 mo. USD LIBOR + .300% 4.142% FRN 5/20/68	236,534	234,116
Series 2010-H28, Class FE, 1 mo. USD LIBOR + .400% 4.242% FRN 12/20/60	71,796	71,201
Series 2014-H20, Class FA, 1 mo. USD LIBOR + .430% 4.272% FRN 10/20/64	814,039	804,452
Series 2011-H08, Class FG, 1 mo. USD LIBOR + .480% 4.322% FRN 3/20/61	63,241	62,776
Series 2011-H09, Class AF, 1 mo. USD LIBOR + .500% 4.342% FRN 3/20/61	39,239	38,988
Series 2016-84, Class IG, 4.500% 11/16/45	215,877	42,431
Series 2020-H09, Class NF, 1 mo. USD LIBOR + 1.250% 5.092% FRN 4/20/70	122,157	122,623
		<u>8,218,767</u>
Pass-Through Securities — 25.4%		
Federal Home Loan Mortgage Corp.		
Pool #RB5125 2.000% 9/01/41	891,270	754,101
Pool #RB5145 2.000% 2/01/42	94,106	79,476
Pool #RA3882 2.000% 11/01/50	329,746	271,681
Pool #QB8602 2.000% 2/01/51	78,872	65,378
Pool #QB9087 2.000% 2/01/51	394,664	326,894
Pool #QB9482 2.000% 3/01/51	78,179	64,559
Pool #QC0041 2.000% 3/01/51	78,071	64,470
Pool #QC0160 2.000% 3/01/51	75,367	62,402
Pool #QC0161 2.000% 3/01/51	82,337	67,993
Pool #QB9290 2.000% 3/01/51	258,664	214,167
Pool #SD0573 2.000% 4/01/51	151,957	125,816
Pool #QC0885 2.000% 4/01/51	86,350	71,496
Pool #QC1164 2.000% 4/01/51	78,792	65,188
Pool #SD8146 2.000% 5/01/51	952,703	783,452
Pool #SD8172 2.000% 10/01/51	277,264	227,574
Pool #SD0745 2.000% 11/01/51	91,415	75,432
Pool #QD2129 2.000% 11/01/51	1,035,667	849,089
Pool #840698 5 year CMT + 1.284% 2.105% FRN 3/01/47	19,235	17,888
Pool #SD7525 2.500% 10/01/50	149,498	129,329
Pool #QB5092 2.500% 11/01/50	160,853	139,101
Pool #QB5093 2.500% 11/01/50	78,319	67,581
Pool #RA3913 2.500% 11/01/50	460,032	397,824
Pool #RA4142 2.500% 12/01/50	77,106	66,679

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #QC0165 2.500% 3/01/51	\$ 79,735	\$ 68,966
Pool #QC5830 2.500% 8/01/51	180,472	155,532
Pool #QC6551 2.500% 9/01/51	87,237	75,127
Pool #QC7411 2.500% 9/01/51	91,464	78,653
Pool #SD1751 2.500% 10/01/51	195,455	168,261
Pool #SD7548 2.500% 11/01/51	917,484	791,555
Pool #SD0777 2.500% 11/01/51	91,960	78,562
Pool #SD0849 2.500% 1/01/52	94,000	80,863
Pool #RA6562 2.500% 1/01/52	181,136	156,274
Pool #SD7552 2.500% 1/01/52	281,309	241,731
Pool #QD6079 2.500% 2/01/52	94,099	80,948
Pool #QD8675 2.500% 3/01/52	94,496	81,186
Pool #SD1749 2.500% 4/01/52	297,102	254,095
Pool #841077 12 mo. USD LIBOR + 1.619% 2.878% FRN 11/01/47	121,246	115,389
Pool #ZS8669 3.000% 9/01/32	65,701	62,493
Pool #ZS8673 3.000% 10/01/32	45,907	43,665
Pool #ZT1257 3.000% 1/01/46	148,414	135,266
Pool #G67701 3.000% 10/01/46	586,371	530,708
Pool #G60985 3.000% 5/01/47	1,164,559	1,052,919
Pool #SD7509 3.000% 11/01/49	49,590	44,499
Pool #QC9154 3.000% 10/01/51	94,540	84,141
Pool #841076 12 mo. USD LIBOR + 1.628% 3.009% FRN 11/01/48	466,069	442,669
Pool #841081 12 mo. USD LIBOR + 1.621% 3.091% FRN 2/01/50	197,997	189,054
Pool #ZS9316 3.500% 1/01/38	271,569	258,451
Pool #Q41209 3.500% 6/01/46	123,003	114,977
Pool #Q19135 4.000% 6/01/43	23,613	23,007
Pool #Q19236 4.000% 6/01/43	15,369	14,927
Pool #Q19615 4.000% 7/01/43	23,166	22,572
Pool #Q19985 4.000% 7/01/43	677,718	660,315
Pool #C09071 4.000% 2/01/45	131,045	126,656
Pool #G67713 4.000% 6/01/48	484,662	467,218
Pool #U92272 4.500% 12/01/43	2,641	2,603
Pool #Q49177 4.500% 6/01/47	48,082	47,557
Pool #SD1143 4.500% 9/01/50	90,330	88,558
Pool #SD8245 4.500% 9/01/52	2,900,858	2,801,567
Pool #SD8257 4.500% 10/01/52	2,051,199	1,980,349
Pool #SD1305 5.000% 7/01/52	438,978	436,522
Pool #G06875 5.500% 12/01/38	4,444	4,583
Pool #SD8268 5.500% 11/01/52	6,900,065	6,928,230
Pool #G07509 6.500% 9/01/39	8,054	8,614
Pool #G06669 6.500% 9/01/39	8,733	9,285
Pool #G07335 7.000% 3/01/39	18,399	20,134
Federal National Mortgage Association		
Pool #FS2528 1.500% 1/01/51	97,694	75,650
Pool #MA4280 1.500% 3/01/51	350,622	271,508
Pool #MA4501 2.000% 12/01/41	92,540	78,298
Pool #BQ0254 2.000% 8/01/50	71,500	59,356
Pool #BQ1528 2.000% 9/01/50	69,846	57,983
Pool #MA4237 2.000% 1/01/51	80,859	66,595
Pool #BR2641 2.000% 2/01/51	79,635	65,961
Pool #BR2643 2.000% 2/01/51	74,880	61,998
Pool #BR2644 2.000% 2/01/51	75,077	61,997
Pool #BR2664 2.000% 2/01/51	301,056	249,360
Pool #BR3500 2.000% 2/01/51	62,251	51,269
Pool #BR3256 2.000% 2/01/51	76,287	63,259
Pool #BR3257 2.000% 2/01/51	79,493	65,893

Pool #BR3286 2.000% 3/01/51	78,878	65,333
Pool #BR4722 2.000% 3/01/51	76,798	63,418

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #BR4753 2.000% 3/01/51	\$ 83,941	\$ 69,527
Pool #BR4756 2.000% 3/01/51	75,278	62,163
Pool #BR5487 2.000% 3/01/51	84,345	69,651
Pool #BR5587 2.000% 3/01/51	84,330	69,823
Pool #BR5577 2.000% 3/01/51	85,319	70,455
Pool #BR5649 2.000% 3/01/51	87,938	72,618
Pool #BR5633 2.000% 3/01/51	86,063	71,070
Pool #FM6343 2.000% 3/01/51	86,237	71,213
Pool #BQ9453 2.000% 3/01/51	172,354	142,705
Pool #FM6418 2.000% 3/01/51	84,046	69,640
Pool #BR7745 2.000% 4/01/51	77,842	64,403
Pool #BR7744 2.000% 4/01/51	81,732	67,647
Pool #BR8478 2.000% 4/01/51	82,960	68,662
Pool #BR8518 2.000% 4/01/51	78,168	64,672
Pool #MA4325 2.000% 5/01/51	699,418	575,164
Pool #FM9489 2.000% 11/01/51	185,843	152,363
Pool #MA4465 2.000% 11/01/51	186,649	153,023
Pool #FS0349 2.000% 1/01/52	188,502	155,014
Pool #FS1014 2.000% 2/01/52	95,138	78,326
Pool #FS1015 2.000% 2/01/52	284,950	234,239
Pool #FS2040 2.000% 2/01/52	385,978	316,443
Pool #FS1112 2.000% 3/01/52	191,438	158,087
Pool #MA2749 2.500% 9/01/36	42,572	38,978
Pool #FM3123 2.500% 3/01/38	415,015	379,970
Pool #CA9358 2.500% 3/01/41	83,622	73,817
Pool #CB0100 2.500% 4/01/41	170,361	150,492
Pool #BK2620 2.500% 6/01/50	66,963	57,720
Pool #MA4120 2.500% 9/01/50	58,426	50,123
Pool #FM4577 2.500% 10/01/50	210,028	180,577
Pool #BM6623 2.500% 10/01/50	93,303	77,551
Pool #CA7257 2.500% 10/01/50	79,566	68,657
Pool #FM5313 2.500% 10/01/50	85,371	73,239
Pool #BQ5876 2.500% 11/01/50	82,988	71,610
Pool #FM6460 2.500% 3/01/51	162,742	140,507
Pool #CB0458 2.500% 5/01/51	929,577	794,435
Pool #FM7675 2.500% 6/01/51	226,556	195,460
Pool #FM7676 2.500% 6/01/51	87,964	75,726
Pool #FM7900 2.500% 7/01/51	170,402	146,694
Pool #BT3303 2.500% 8/01/51	89,261	76,926
Pool # FS0024 2.500% 9/01/51	85,448	73,853
Pool #FM8864 2.500% 10/01/51	175,556	151,186
Pool #FM9335 2.500% 10/01/51	90,915	77,527
Pool #FS0434 2.500% 11/01/51	91,046	78,806
Pool #FS1104 2.500% 11/01/51	90,084	77,776
Pool #BU2599 2.500% 1/01/52	92,743	79,781
Pool #FS0366 2.500% 1/01/52	93,839	81,106
Pool #FS0424 2.500% 1/01/52	93,611	80,426
Pool #BV3089 2.500% 2/01/52	94,213	80,943
Pool #FS0523 2.500% 2/01/52	94,172	80,732
Pool #FS0551 2.500% 2/01/52	93,853	80,634
Pool #FS0549 2.500% 2/01/52	284,074	242,731
Pool #CB3044 2.500% 3/01/52	97,297	83,410
Pool #CB3031 2.500% 3/01/52	186,851	159,015
Pool #FS3368 2.500% 3/01/52	793,966	679,284
Pool #BF0560 2.500% 9/01/61	94,372	79,177
Pool #AM8674 2.810% 4/01/25	50,000	47,815

Pool #MA2320 3.000% 7/01/35	39,683	37,247
Pool #MA2523 3.000% 2/01/36	268,887	252,377

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA2579 3.000% 4/01/36	\$ 194,983	\$ 183,010
Pool #MA2773 3.000% 10/01/36	898,043	841,497
Pool #AQ7306 3.000% 1/01/43	24,862	22,209
Pool #AR1202 3.000% 1/01/43	33,696	30,100
Pool #AR7399 3.000% 6/01/43	19,252	17,499
Pool #AS0038 3.000% 7/01/43	42,517	38,644
Pool #AU6735 3.000% 10/01/43	27,077	24,611
Pool #BC1509 3.000% 8/01/46	34,748	31,354
Pool #AS7844 3.000% 9/01/46	60,500	54,592
Pool #BC2817 3.000% 9/01/46	45,657	41,199
Pool #BD8104 3.000% 10/01/46	167,688	151,470
Pool #AL9397 3.000% 10/01/46	69,476	62,626
Pool #BM1565 3.000% 4/01/47	650,399	587,496
Pool #FM8576 3.000% 2/01/50	78,824	71,028
Pool #FM4311 3.000% 8/01/50	75,552	67,254
Pool #FM8577 3.000% 8/01/51	167,494	150,012
Pool #FS0037 3.000% 8/01/51	80,720	72,384
Pool #FM8648 3.000% 9/01/51	83,788	74,336
Pool #CB1878 3.000% 10/01/51	179,929	158,675
Pool #FS0034 3.000% 12/01/51	91,741	81,994
Pool # FS0240 3.000% 1/01/52	91,903	82,225
Pool #FS0331 3.000% 1/01/52	93,310	82,543
Pool # FS1074 3.000% 3/01/52	469,955	419,547
Pool #FS1289 3.000% 3/01/52	93,508	83,748
Pool #CB3833 3.000% 6/01/52	96,779	85,491
Pool #AN8048 3.080% 1/01/28	210,000	195,513
Pool #BL2454 3.160% 5/01/29	85,703	79,382
Pool #MA2110 3.500% 12/01/34	59,309	56,778
Pool #MA2138 3.500% 1/01/35	30,497	29,196
Pool #AS8740 3.500% 2/01/37	66,759	63,638
Pool #FM5754 3.500% 3/01/37	52,204	49,976
Pool #890827 3.500% 12/01/37	41,766	39,749
Pool #FM6015 3.500% 8/01/39	54,209	51,675
Pool #FM0068 3.500% 2/01/40	211,553	200,013
Pool #FM0071 3.500% 2/01/40	43,820	41,430
Pool #MA1177 3.500% 9/01/42	17,489	16,417
Pool #MA1213 3.500% 10/01/42	105,633	99,162
Pool #AL3026 3.500% 12/01/42	32,967	30,887
Pool #AY6181 3.500% 4/01/45	84,630	79,246
Pool #AS6328 3.500% 12/01/45	325,728	301,505
Pool #AS6541 3.500% 1/01/46	90,042	84,286
Pool #AL9546 3.500% 11/01/46	172,141	161,298
Pool #FM3347 3.500% 5/01/47	190,350	177,646
Pool #FM3469 3.500% 8/01/48	366,181	342,200
Pool #FM3773 3.500% 11/01/48	384,792	359,110
Pool #FS1240 3.500% 12/01/51	90,054	82,680
Pool #CB2680 3.500% 1/01/52	92,902	85,272
Pool #FS1462 3.500% 1/01/52	93,114	86,143
Pool #BV5395 3.500% 4/01/52	93,687	86,402
Pool #FS1092 3.500% 4/01/52	284,751	261,059
Pool #FS1454 3.500% 4/01/52	96,912	88,851
Pool #FS1555 3.500% 4/01/52	96,051	88,192
Pool #BV8546 3.500% 5/01/52	95,469	87,867
Pool #FS1556 3.500% 5/01/52	384,865	354,939
Pool #BS6565 3.740% 9/01/32	100,000	95,168
Pool #BS6215 3.840% 7/01/32	100,000	93,973

Pool #BS6149 3.840% 8/01/32	100,000	93,854
Pool #BS6131 3.890% 7/01/32	300,000	283,546

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #BS6949 3.980% 10/01/32	\$ 200,000	\$ 188,304
Pool #AK8441 4.000% 4/01/42	13,474	13,056
Pool #AO2711 4.000% 5/01/42	10,119	9,799
Pool #AO6086 4.000% 6/01/42	21,191	20,521
Pool #AP0692 4.000% 7/01/42	14,673	14,222
Pool #AP5333 4.000% 7/01/42	145,615	140,975
Pool #AP2530 4.000% 8/01/42	15,500	15,014
Pool #AP4903 4.000% 9/01/42	24,855	24,083
Pool #AP7399 4.000% 9/01/42	38,903	37,677
Pool #AP9766 4.000% 10/01/42	61,801	59,441
Pool #MA1217 4.000% 10/01/42	77,973	75,044
Pool #AP9229 4.000% 10/01/42	8,461	8,191
Pool #MA1253 4.000% 11/01/42	47,694	45,897
Pool #AQ3599 4.000% 11/01/42	16,324	15,806
Pool #AQ4555 4.000% 12/01/42	28,228	27,332
Pool #AQ7003 4.000% 12/01/42	30,640	29,644
Pool #AQ7082 4.000% 1/01/43	37,171	35,962
Pool #AL3508 4.000% 4/01/43	24,694	24,038
Pool #AQ4078 4.000% 6/01/43	22,727	22,123
Pool #AQ4080 4.000% 6/01/43	16,306	15,821
Pool #AT8394 4.000% 6/01/43	25,023	24,358
Pool #AB9683 4.000% 6/01/43	34,362	33,277
Pool #AT9637 4.000% 7/01/43	69,477	67,414
Pool #AT9653 4.000% 7/01/43	53,376	51,958
Pool #AT9657 4.000% 7/01/43	44,105	42,712
Pool #AS0070 4.000% 8/01/43	23,519	22,579
Pool #MA1547 4.000% 8/01/43	24,445	23,467
Pool #AS4347 4.000% 1/01/45	40,143	38,926
Pool #MA4626 4.000% 6/01/52	17,419,544	16,390,582
Pool #BF0104 4.000% 2/01/56	79,741	76,177
Pool #BF0183 4.000% 1/01/57	44,265	42,286
Pool #BF0191 4.000% 6/01/57	77,664	74,145
Pool #BS6124 4.060% 7/01/32	100,000	95,148
Pool #MA0706 4.500% 4/01/31	10,253	10,180
Pool #MA0734 4.500% 5/01/31	35,587	35,290
Pool #MA0776 4.500% 6/01/31	12,200	12,098
Pool #MA0913 4.500% 11/01/31	9,433	9,354
Pool #MA0939 4.500% 12/01/31	9,208	9,131
Pool #993117 4.500% 1/01/39	1,019	1,009
Pool #AA0856 4.500% 1/01/39	6,425	6,376
Pool #AA3495 4.500% 2/01/39	5,258	5,214
Pool #935520 4.500% 8/01/39	9,677	9,601
Pool #AD5481 4.500% 5/01/40	251,531	249,686
Pool #AD6914 4.500% 6/01/40	28,378	28,167
Pool #AD8685 4.500% 8/01/40	83,182	82,487
Pool #MA1591 4.500% 9/01/43	45,879	45,223
Pool #MA1629 4.500% 10/01/43	41,173	40,584
Pool #AL4341 4.500% 10/01/43	2,828	2,807
Pool #MA1664 4.500% 11/01/43	19,433	19,137
Pool #MA1711 4.500% 12/01/43	43,487	42,824
Pool #AL4741 4.500% 1/01/44	18,521	18,256
Pool #AW0318 4.500% 2/01/44	46,176	45,833
Pool #AL5562 4.500% 4/01/44	8,253	8,191
Pool #890604 4.500% 10/01/44	192,551	191,361
Pool #AS4271 4.500% 1/01/45	23,607	23,557
Pool #CA2047 4.500% 7/01/48	170,264	168,201

Pool #CA5379 4.500% 3/01/50	178,160	175,291
Pool #MA4733 4.500% 9/01/52	4,168,233	4,025,561

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #BF0148 4.500% 4/01/56	\$ 352,892	\$ 347,229
Pool #BF0222 4.500% 9/01/57	386,706	378,757
Pool #BF0301 4.500% 8/01/58	39,699	38,696
Pool #BF0338 4.500% 1/01/59	94,147	91,770
Pool #915154 5.000% 4/01/37	29,043	29,375
Pool #974965 5.000% 4/01/38	73,757	74,597
Pool #983077 5.000% 5/01/38	21,345	21,582
Pool #310088 5.000% 6/01/38	19,889	20,097
Pool #AE2266 5.000% 3/01/40	51,042	51,661
Pool #MA4785 5.000% 10/01/52	1,620,626	1,600,417
Pool #MA4806 5.000% 11/01/52	8,963,362	8,851,593
Pool #995072 5.500% 8/01/38	10,620	10,986
Pool #MA4842 5.500% 12/01/52	547,293	549,527
Pool #BF0141 5.500% 9/01/56	397,753	410,936
Pool #481473 6.000% 2/01/29	10	10
Pool #867557 6.000% 2/01/36	1,434	1,464
Pool #AE0469 6.000% 12/01/39	82,886	86,858
Pool #BM1948 6.000% 7/01/41	95,006	99,297
Pool #AL4324 6.500% 5/01/40	53,289	56,966
Pool #AE0758 7.000% 2/01/39	29,355	32,011
Government National Mortgage Association		
Pool #AB2892 3.000% 9/15/42	76,542	70,062
Pool #AA5649 3.000% 9/15/42	76,395	69,873
Pool #783669 3.000% 9/15/42	141,426	129,505
Pool #AB9108 3.000% 10/15/42	545,721	499,131
Pool #AB9109 3.000% 10/15/42	46,146	42,223
Pool #AB9207 3.000% 11/15/42	40,036	36,618
Pool #784571 3.500% 6/15/48	167,448	157,008
Pool #BS8439 3.500% 5/15/50	129,954	120,227
Pool #487588 6.000% 4/15/29	613	627
Pool #595077 6.000% 10/15/32	188	194
Pool #596620 6.000% 10/15/32	64	66
Pool #604706 6.000% 10/15/33	26,366	27,300
Pool #636251 6.000% 3/15/35	3,591	3,734
Pool #782034 6.000% 1/15/36	28,067	29,139
Pool #658029 6.000% 7/15/36	7,224	7,535
Government National Mortgage Association II		
Pool #MA7136 2.500% 1/20/51	66,404	58,034
Pool #MA7312 2.500% 4/20/51	153,355	133,822
Pool #MA7767 2.500% 12/20/51	738,699	642,015
Pool #MA4068 3.000% 11/20/46	19,504	17,707
Pool #MA7590 3.000% 9/20/51	336,227	301,466
Pool #MA7706 3.000% 11/20/51	718,782	644,021
Pool #CJ9477 3.000% 1/20/52	274,648	244,108
Pool #785944 3.000% 2/20/52	95,114	84,656
Pool #786095 3.000% 4/20/52	98,006	85,700
Pool #786134 3.000% 4/20/52	93,506	82,933
Pool #MA1995 3.500% 6/20/44	49,444	46,576
Pool #MA2678 3.500% 3/20/45	21,267	20,027
Pool #784106 3.500% 1/20/46	55,991	52,621
Pool #MA3597 3.500% 4/20/46	88,357	82,930
Pool #BC4732 3.500% 10/20/47	198,528	184,347
Pool #BD0384 3.500% 10/20/47	143,572	133,316
Pool #784825 3.500% 10/20/49	45,209	41,301
Pool #BM7534 3.500% 2/20/50	61,148	56,532
Pool #MA6711 3.500% 6/20/50	345,007	321,900

Pool #MA6997 3.500% 11/20/50	421,532	393,003
Pool #786216 3.500% 6/20/52	98,468	90,265

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA4511 4.000% 6/20/47	\$ 550,114	\$ 529,276
Pool #MA4720 4.000% 9/20/47	358,652	344,730
Pool #BM9734 4.000% 10/20/49	34,330	32,772
Pool #BM9743 4.000% 11/20/49	42,096	40,186
Pool #BS1728 4.000% 1/20/50	44,471	42,453
Pool #BS1742 4.000% 2/20/50	36,245	34,601
Pool #BS1757 4.000% 3/20/50	30,108	28,742
Pool #BS8420 4.000% 4/20/50	144,737	138,169
Pool #783298 4.500% 4/20/41	79,724	79,065
Pool #783368 4.500% 7/20/41	11,774	11,677
Pool #MA4654 4.500% 8/20/47	120,379	119,090
Pool #MA5138 4.500% 4/20/48	181,721	178,979
Pool #MA5193 4.500% 5/20/48	186,893	183,898
Pool #MA5265 4.500% 6/20/48	162,333	159,681
Pool #MA5331 4.500% 7/20/48	40,762	40,083
Pool #MA5818 4.500% 3/20/49	53,938	53,057
Pool #G24747 5.000% 7/20/40	49,450	50,046
Government National Mortgage Association II TBA		
2.500% 1/23/53 (h)	3,100,000	2,690,703
2.500% 2/21/53 (h)	100,000	86,867
3.000% 1/23/53 (h)	1,200,000	1,070,906
3.000% 2/21/53 (h)	300,000	267,879
3.500% 1/23/53 (h)	1,100,000	1,012,258
3.500% 2/21/53 (h)	400,000	368,266
4.000% 2/21/53 (h)	900,000	853,664
4.500% 2/21/53 (h)	1,000,000	971,563
5.000% 2/21/53 (h)	1,400,000	1,387,914
5.500% 2/21/53 (h)	1,000,000	1,004,961
6.000% 2/21/53 (h)	400,000	405,750
Uniform Mortgage Backed Securities TBA		
2.000% 1/12/53 (h)	1,000,000	817,813
2.000% 2/13/53 (h)	100,000	81,875
2.500% 2/13/53 (h)	300,000	255,141
2.500% 12/01/53 (h)	4,400,000	3,738,625
3.000% 2/14/52 (h)	1,000,000	881,016
3.000% 12/01/53 (h)	2,700,000	2,377,055
3.500% 2/25/49 (h)	3,000,000	2,733,047
3.500% 2/13/53 (h)	600,000	546,891
4.000% 1/12/53 (h)	500,000	470,156
4.000% 2/13/53 (h)	1,300,000	1,222,609
4.500% 1/12/53 (h)	800,000	772,125
4.500% 2/13/53 (h)	1,200,000	1,158,187
5.000% 2/13/53 (h)	900,000	888,047
5.500% 2/13/53 (h)	300,000	300,973
		<u>110,336,487</u>
Whole Loans — 0.9%		
Federal Home Loan Mortgage Corp. Structured Agency Credit Risk Debt Notes		
Series 2020-DNA6, Class M2, 30 day SOFR + 2.000% 5.928% FRN 12/25/50 (b)	679,338	673,970
Series 2020-DNA2, Class M2, 1 mo. USD LIBOR + 1.850% 6.239% FRN 2/25/50 (b)	330,520	329,084
Series 2020-DNA1, Class B1, 1 mo. USD LIBOR + 2.300% 6.689% FRN 1/25/50 (b)	380,000	358,386
Series 2017-DNA1, Class B1, 1 mo. USD LIBOR + 4.950% 9.339% FRN 7/25/29	1,450,000	1,526,280
Federal National Mortgage Association Connecticut Avenue Securities Trust		

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2019-R07, Class 1M2, 1 mo. USD LIBOR + 2.100% 6.489% FRN 10/25/39 (b)	\$ 45,686	\$ 45,673
Series 2019-R02, Class 1M2, 1 mo. USD LIBOR + 2.300% 6.689% FRN 8/25/31 (b)	55,915	55,930
Series 2022-R04, Class 1M2, 30 day SOFR + 3.100% 7.028% FRN 3/25/42 (b)	680,000	677,462
Series 2018-C05, Class 1B1, 1 mo. USD LIBOR + 4.250% 8.639% FRN 1/25/31	370,000	380,878
		<u>4,047,663</u>
TOTAL U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (Cost \$128,736,576)		<u>122,602,917</u>
U.S. TREASURY OBLIGATIONS — 26.1%		
U.S. Treasury Bonds & Notes — 26.1%		
U.S. Treasury Bond		
1.625% 11/15/50	710,000	427,645
1.750% 8/15/41	110,000	75,866
1.875% 2/15/51	2,320,000	1,491,753
1.875% 11/15/51	2,067,000	1,324,368
2.000% 11/15/41	160,000	115,146
2.000% 2/15/50	1,730,000	1,155,856
2.250% 5/15/41	300,000	227,069
2.250% 2/15/52	19,590,000	13,778,766
2.375% 5/15/51	1,770,000	1,283,387
2.875% 5/15/52	44,310,000	35,900,423
3.000% 2/15/48	16,000	13,245
3.000% 8/15/52	10,580,000	8,825,131
3.750% 11/15/43	800,000	755,160
4.000% 11/15/42 (c) (h)	4,290,000	4,231,107
4.000% 11/15/52	120,000	121,350
U.S. Treasury Floating Rate Note		
3 mo. Treasury money market yield - .075% 4.323% FRN 4/30/24	10,150,000	10,126,444
3 mo. Treasury money market yield + .037% 4.435% FRN 7/31/24	7,296,900	7,285,089
U.S. Treasury Note		
0.250% 11/15/23	70,000	67,328
1.375% 11/15/31	1,190,000	972,044
2.625% 5/31/27	60,000	56,625
2.750% 8/15/32	1,570,000	1,433,861
3.125% 8/31/29	780,000	742,301
3.875% 11/30/27 (c)	1,750,000	1,743,010
4.000% 12/15/25	790,000	785,833
4.000% 10/31/29	2,840,000	2,847,785
4.125% 9/30/27	210,000	211,113
4.125% 10/31/27	5,770,000	5,799,572
4.125% 11/15/32	10,850,000	11,101,518
U.S. Treasury Strip		
0.000% 5/15/49	1,450,000	516,210
		<u>113,415,005</u>
TOTAL U.S. TREASURY OBLIGATIONS (Cost \$126,546,723)		<u>113,415,005</u>
TOTAL BONDS & NOTES		
(Cost \$481,906,895)		<u>436,084,074</u>

MassMutual Strategic Bond Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL PURCHASED OPTIONS(#) — 0.0% (Cost \$159,395)		\$ 100,563
MUTUAL FUNDS — 2.2%		
	<u>Number of Shares</u>	
Diversified Financial Services — 2.2%		
State Street Navigator Securities Lending Government Money Market Portfolio (i)	9,365,725	<u>9,365,725</u>
TOTAL MUTUAL FUNDS (Cost \$9,365,725)		<u>9,365,725</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$491,432,015)		<u>445,550,362</u>
SHORT-TERM INVESTMENTS — 4.0%		
	<u>Principal Amount</u>	
Discount Notes — 2.1%		
Federal Home Loan Bank		
4.060% , due 1/11/23 (j)	\$ 340,000	339,670
4.320% , due 2/15/23 (j)	1,270,000	1,263,312
4.418% , due 2/22/23 (j)	3,620,000	3,597,416
4.450% , due 2/28/23 (j)	1,580,000	1,569,172
4.464% , due 3/08/23 (j)	2,420,000	2,401,000
Repurchase Agreement — 1.9%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (k)	8,365,075	<u>8,365,075</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$17,534,021)		<u>17,535,645</u>
TOTAL INVESTMENTS — 106.6% (Cost \$508,966,036) (l)		463,086,007
Less Unfunded Loan Commitments — (0.0%)		(59,420)
NET INVESTMENTS — 106.6% (Cost \$508,906,616)		463,026,587
Other Assets/(Liabilities) — (6.6%)		<u>(28,576,629)</u>
NET ASSETS — 100.0%		<u>\$ 434,449,958</u>

Abbreviation Legend

FRN	Floating Rate Note
REMICS	Real Estate Mortgage Investment Conduits
STEP	Step Up Bond
TBA	To Be Announced
VRN	Variable Rate Note

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Unfunded or partially unfunded loan commitments.
- (b) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$61,343,943 or 14.12% of net assets.
- (c) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$9,976,939 or 2.30% of net assets. The Fund received \$816,996 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. *(Note 2)*.
- (d) Security is perpetual and has no stated maturity date.
- (e) Certain variable rate securities are not based on a published reference rate and spread but are determined by the issuer or agent and are based on current market conditions. These securities do not indicate a reference rate and spread in their description above. The rates shown are the current interest rates at December 31, 2022.
- (f) The principal amount of the security is in foreign currency. The market value is in U.S. dollars.
- (g) May contain securities that are issued by a U.S. Government Agency, but are unsecured and are not guaranteed by a U.S. Government Agency.
- (h) A portion of this security is purchased on a when-issued, delayed-delivery or forward commitment basis.
- (i) Represents investment of security lending cash collateral. *(Note 2)*.
- (j) The rate shown represents yield-to-maturity.
- (k) Maturity value of \$8,366,265. Collateralized by U.S. Government Agency obligations with rates ranging from 0.000% - 2.875%, maturity dates ranging from 1/31/23 – 5/15/28, and an aggregate market value, including accrued interest, of \$8,532,526.
- (l) See Note 3 for aggregate cost for federal tax purposes.

(#) Exchange-Traded Options Purchased

Description	Expiration Date	Exercise Price	No. of Contracts	Notional Amount	Value	Premiums Paid (Received)	Unrealized Appreciation/ (Depreciation)
Call							
U.S. Treasury Note 10 Year Future	1/27/23	114.00	105	USD 11,791,172	\$ 32,813	\$ 59,338	\$ (26,525)
3 Month SOFR Future	6/16/23	95.50	21	USD 4,989,600	4,594	6,869	(2,275)
					<u>\$ 37,407</u>	<u>\$ 66,207</u>	<u>\$ (28,800)</u>
Put							
SOFR 1 Year Mid Curve Future	1/13/23	95.63	104	USD 24,923,600	\$ 13,650	\$ 36,619	\$ (22,969)
SOFR 1 Year Mid Curve Future	1/13/23	95.88	107	USD 25,642,550	38,787	45,399	(6,612)
U.S. Treasury Note 10 Year Future	1/27/23	109.00	98	USD 11,005,094	10,719	11,170	(451)
					<u>\$ 63,156</u>	<u>\$ 93,188</u>	<u>\$ (30,032)</u>
					<u>\$ 100,563</u>	<u>\$ 159,395</u>	<u>\$ (58,832)</u>

Exchange-Traded Options Written

Description	Expiration Date	Exercise Price	No. of Contracts	Notional Amount	Value	Premiums Paid (Received)	Unrealized Appreciation/ (Depreciation)
Call							
U.S. Treasury Note 10 Year Future	2/24/23	115.50	84	USD 9,432,938	\$ (26,250)	\$ (36,011)	\$ 9,761
3 Month SOFR Future	6/16/23	96.00	21	USD 4,989,600	(2,100)	(2,581)	481
3 Month SOFR Future	9/15/23	98.75	43	USD 10,285,600	(1,344)	(14,560)	13,216
3 Month SOFR Future	12/15/23	96.50	74	USD 17,661,950	(36,075)	(72,020)	35,945
3 Month SOFR Future	12/15/23	96.63	21	USD 5,012,175	(9,056)	(19,168)	10,112
					<u>\$ (74,825)</u>	<u>\$ (144,340)</u>	<u>\$ 69,515</u>
Put							
Eurodollar Future	6/20/23	97.00	22	USD 5,215,925	\$ (119,213)	\$ (4,354)	\$ (114,859)

\$ (194,038)

\$ (148,694)

\$ (45,344)

Forward contracts

Counterparty	Settlement Date	Currency Purchased		Currency Sold		Unrealized Appreciation (Depreciation)
Bank of America N.A.	1/18/23	MXN	8,868,000	USD	444,779	\$ 9,170
Bank of America N.A.	1/18/23	USD	323,428	MXN	6,589,531	(13,887)
Citibank N.A.	1/18/23	JPY	720,075,722	USD	5,030,858	465,327
Citibank N.A.	1/18/23	NOK	12,358,698	EUR	1,181,723	(3,953)
Goldman Sachs International	1/18/23	USD	2,044,026	IDR	31,594,508,090	14,797
Goldman Sachs International	1/18/23	USD	307,422	JPY	43,554,766	(25,022)
Goldman Sachs International	1/18/23	ZAR	6,889,002	USD	382,446	22,516
Goldman Sachs International	1/18/23	GBP	1,415,114	USD	1,628,549	82,883
Morgan Stanley & Co. LLC	1/18/23	USD	1,412,247	CNH	10,055,443	(42,346)
Morgan Stanley & Co. LLC	1/18/23	USD	1,159,601	CAD	1,592,890	(16,917)
Morgan Stanley & Co. LLC	1/18/23	USD	1,984,349	GBP	1,648,199	(8,975)
Morgan Stanley & Co. LLC	1/18/23	USD	2,463,162	JPY	326,450,250	(28,563)
Morgan Stanley & Co. LLC	1/18/23	AUD	8,863,997	USD	5,726,142	312,325
Morgan Stanley & Co. LLC	1/18/23	CAD	9,458,985	USD	6,926,767	59,697
Morgan Stanley & Co. LLC	1/18/23	USD	327,378	EUR	325,834	(21,742)
						<u>\$ 805,310</u>

Futures contracts

				Expiration Date	Number of Contracts	Notional Amount	Value/ Net Unrealized Appreciation/ (Depreciation)
Long							
Euro-BOBL				3/08/23	9	\$ 1,156,097	\$ (40,956)
Euro-Bund				3/08/23	11	1,614,712	(49,469)
Euro-OAT				3/08/23	15	2,201,880	(157,857)
90 Day Eurodollar				3/13/23	36	8,556,337	(13,087)
Australia Treasury Bond 10 Year				3/15/23	36	2,998,497	(163,075)
U.S. Treasury Long Bond				3/22/23	144	18,120,308	(70,808)
U.S. Treasury Ultra Bond				3/22/23	156	21,064,987	(112,237)
UK Long Gilt				3/29/23	14	1,784,253	(93,415)
U.S. Treasury Note 5 Year				3/31/23	1,721	186,394,997	(648,004)
90 Day Eurodollar				6/19/23	5	1,212,508	(27,070)
3 Month SOFR				9/19/23	1	241,415	(3,815)
90 Day Eurodollar				12/18/23	22	5,357,071	(120,521)
3 Month SOFR				3/18/25	106	25,551,473	63,427
3 Month SOFR				3/17/26	24	5,783,134	26,066
							<u>\$ (1,410,821)</u>
Short							
Euro-Buxl 30 Year Bond				3/08/23	2	\$ (343,183)	\$ 53,648
Japanese 10 Year Bond				3/13/23	4	(4,517,043)	83,639
U.S. Treasury Note 10 Year				3/22/23	862	(97,332,034)	532,128
U.S. Treasury Ultra 10 Year				3/22/23	49	(5,842,401)	46,620
U.S. Treasury Note 2 Year				3/31/23	299	(61,264,116)	(54,244)
3 Month SOFR				3/19/24	169	(40,482,901)	146,826
90 Day Eurodollar				3/17/25	91	(22,266,417)	316,079
							<u>\$ 1,124,696</u>

Centrally Cleared Credit Default Swaps - Buy Protection

Reference					Upfront Premium Paid/ (Received)		Unrealized Appreciation (Depreciation)
Obligation/ Index	Rate Paid by Fund	Payment Frequency	Termination Date	Notional Amount	Value		

CDX.NA.HY Series 39†	5.000%	Quarterly	12/20/2027	USD	842,100 \$	(5,186) \$	37,735 \$	(42,921)
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Centrally Cleared Credit Default Swaps - Sell Protection††

Reference Obligation/ Index	Rate Received by Fund	Payment Frequency	Termination Date	Credit Rating	Notional Amount	Value	Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
CDX.NA.IG Series 39†	1.000%	Quarterly	12/20/27	BBB+*	USD 54,179,000	\$ 433,215	\$ (45,293)	\$ 478,508

Centrally Cleared Interest Rate Swaps

Paid by the Fund		Received by the Fund					Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
Rate/ Reference	Frequency	Rate/ Reference	Frequency	Termination Date	Notional Amount	Value		
28 Day-MXN-TIIE-Banxico	Monthly	Fixed 7.450%	Monthly	7/18/29	MXN 88,370,000	\$ (290,920)	\$ 37,242	\$ (328,162)
Fixed 1.130%	Annually	12-Month USD SOFR	Annually	8/15/28	USD 980,000	124,883	6,525	118,358
Fixed 1.220%	Annually	12-Month USD SOFR	Annually	8/15/28	USD 2,942,000	361,620	(190)	361,810
Fixed 2.850%	Annually	12-Month USD SOFR	Annually	2/15/29	USD 3,019,000	128,283	(3,872)	132,155
Fixed 3.270%	Annually	12-Month USD SOFR	Annually	4/30/29	USD 8,086,000	158,242	(34,958)	193,200
Fixed 3.850%	Annually	12-Month USD SOFR	Annually	6/30/29	USD 6,935,000	(96,124)	3,712	(99,836)
Fixed 2.000%	Annually	12-Month USD SOFR	Annually	3/18/32	USD 1,542,000	183,620	10,018	173,602
Fixed 0.560%	Annually	12-Month USD SOFR	Annually	7/20/45	USD 3,470,000	1,516,018	78,573	1,437,445
Fixed 1.729%	Annually	Fed Funds	Annually	2/15/47	USD 1,725,000	448,249	25,406	422,843
Fixed 1.520%	Annually	12-Month USD SOFR	Annually	2/15/47	USD 1,137,000	334,162	(29,927)	364,089
Fixed 1.630%	Annually	12-Month USD SOFR	Annually	5/15/47	USD 580,000	160,556	25,406	135,150
Fixed 1.650%	Annually	12-Month USD SOFR	Annually	8/15/47	USD 226,000	61,997	22,724	39,273
Fixed 2.620%	Annually	12-Month USD SOFR	Annually	2/15/48	USD 505,000	57,106	577	56,529
Fixed 2.510%	Annually	12-Month USD SOFR	Annually	2/15/48	USD 1,829,000	240,562	11,993	228,569
Fixed 2.600%	Annually	12-Month USD SOFR	Annually	2/15/48	USD 1,281,000	149,107	88,053	61,054
Fixed 2.500%	Annually	12-Month USD SOFR	Annually	4/21/52	USD 1,900,000	243,752	3,408	240,344
						\$ 3,781,113	\$ 244,690	\$ 3,536,423

* Rating is determined by Western Asset Management Company and represents a weighted average of the ratings of all securities included in the underlying index for the credit default swap. Ratings used in the weighted average are from Moody's Investors Service, Inc., S&P Global Ratings, or Fitch Ratings, whichever is the highest for each constituent. All ratings are as of the report date and do not reflect subsequent changes.

† Payment is based on a percentage of the index. Reference entities are a number of individual issuers comprising the index.

†† For each credit derivative with sold protection, the credit ratings of the entities referenced, as rated by any rating organization, are included in the equivalent S&P Global Ratings or Western Asset Management Company's rating

category, as applicable. The reference entity rating represents the likelihood of a potential payment by the Fund if the referenced entity experiences a credit event as of period end. Notional amounts represent the maximum potential amount of future payments (undiscounted) the Fund could be required to make under the credit derivatives with sold protection.

Currency Legend

AUD	Australian Dollar
CAD	Canadian Dollar
CNH	Offshore Chinese Yuan
EUR	Euro
GBP	British Pound
IDR	Indonesian Rupiah
JPY	Japanese Yen
MXN	Mexican Peso
NOK	Norwegian Krone
RUB	Russian Ruble
USD	U.S. Dollar
ZAR	South African Rand

MassMutual Diversified Value Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 98.4%		
COMMON STOCK — 97.3%		
Basic Materials — 3.9%		
Chemicals — 1.8%		
CF Industries Holdings, Inc.	37,550	\$ 3,199,261
Dow, Inc.	14,900	750,811
Eastman Chemical Co.	2,500	203,600
FMC Corp.	2,500	312,000
Huntsman Corp.	2,200	60,456
LyondellBasell Industries NV Class A	6,900	572,907
The Mosaic Co.	10,100	443,087
Olin Corp.	2,900	153,526
		<u>5,695,648</u>
Forest Products & Paper — 0.8%		
International Paper Co.	69,015	<u>2,389,989</u>
Iron & Steel — 0.7%		
Nucor Corp.	8,100	1,067,661
Reliance Steel & Aluminum Co.	1,700	344,148
Steel Dynamics, Inc.	5,700	556,890
United States Steel Corp.	5,000	125,250
		<u>2,093,949</u>
Mining — 0.6%		
Freeport-McMoRan, Inc.	30,300	1,151,400
Newmont Corp.	15,800	745,760
		<u>1,897,160</u>
		<u>12,076,746</u>
Communications — 5.9%		
Advertising — 0.2%		
The Interpublic Group of Cos., Inc.	8,200	273,142
Omnicom Group, Inc.	5,800	473,106
		<u>746,248</u>
Media — 3.2%		
Comcast Corp. Class A	140,210	4,903,144
Fox Corp. Class A	9,000	273,330
News Corp. Class A	151,566	2,758,501
Nexstar Media Group, Inc. Class A	800	140,024
The Walt Disney Co. (a)	20,660	1,794,941
		<u>9,869,940</u>

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Telecommunications — 2.5%		
AT&T, Inc.	150,900	\$ 2,778,069
Cisco Systems, Inc.	87,700	4,178,028
Corning, Inc.	17,900	571,726
Frontier Communications Parent, Inc. (a)	5,200	132,496
		<u>7,660,319</u>
		<u>18,276,507</u>
Consumer, Cyclical — 5.2%		
Apparel — 0.2%		
Capri Holdings Ltd. (a)	2,900	166,228
Ralph Lauren Corp.	900	95,103
Skechers U.S.A., Inc. Class A (a)	2,800	117,460
Tapestry, Inc.	5,100	194,208
		<u>572,999</u>
Auto Manufacturers — 1.2%		
Cummins, Inc.	3,000	726,870
Ford Motor Co.	103,900	1,208,357
General Motors Co.	30,100	1,012,564
PACCAR, Inc.	7,400	732,378
		<u>3,680,169</u>
Auto Parts & Equipment — 0.1%		
BorgWarner, Inc.	5,000	201,250
Lear Corp.	1,300	161,226
		<u>362,476</u>
Distribution & Wholesale — 0.1%		
LKQ Corp.	8,000	427,280
Home Builders — 0.7%		
D.R. Horton, Inc.	9,700	864,658
Lennar Corp. Class A	7,300	660,650
NVR, Inc. (a)	80	369,006
PulteGroup, Inc.	7,200	327,816
		<u>2,222,130</u>
Home Furnishing — 0.1%		
Whirlpool Corp.	1,700	240,482
Leisure Time — 0.1%		
Brunswick Corp.	2,000	144,160
Harley-Davidson, Inc.	3,100	128,960
Polaris, Inc.	1,200	121,200
		<u>394,320</u>
Lodging — 0.7%		
Boyd Gaming Corp.	2,200	119,966
Las Vegas Sands Corp. (a)	39,326	1,890,401
		<u>2,010,367</u>

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Retail — 2.0%		
AutoNation, Inc. (a)	2,300	\$ 246,790
Bath & Body Works, Inc.	4,800	202,272
Best Buy Co., Inc.	4,700	376,987
Dick's Sporting Goods, Inc.	1,300	156,377
Lowe's Cos., Inc.	19,500	3,885,180
Macy's, Inc.	5,300	109,445
Penske Automotive Group, Inc.	1,700	195,381
Walgreens Boots Alliance, Inc.	18,000	672,480
Williams-Sonoma, Inc.	1,300	149,396
		<u>5,994,308</u>
		<u>15,904,531</u>
Consumer, Non-cyclical — 26.8%		
Agriculture — 2.9%		
Altria Group, Inc.	38,400	1,755,264
Archer-Daniels-Midland Co.	14,800	1,374,180
Darling Ingredients, Inc. (a)	3,400	212,806
Philip Morris International, Inc.	55,828	5,650,352
		<u>8,992,602</u>
Beverages — 0.1%		
Molson Coors Beverage Co. Class B	4,200	216,384
Biotechnology — 2.9%		
Amgen, Inc.	11,300	2,967,832
Biogen, Inc. (a)	2,200	609,224
Gilead Sciences, Inc.	24,700	2,120,495
Moderna, Inc. (a)	8,100	1,454,922
Regeneron Pharmaceuticals, Inc. (a)	2,200	1,587,278
		<u>8,739,751</u>
Commercial Services — 0.5%		
FleetCor Technologies, Inc. (a)	1,600	293,888
Global Payments, Inc.	1,500	148,980
Service Corp. International	4,700	324,958
U-Haul Holding Co. (b)	600	36,114
U-Haul Holding Co.	5,400	296,892
United Rentals, Inc. (a)	1,500	533,130
		<u>1,633,962</u>
Food — 2.2%		
Conagra Brands, Inc.	73,031	2,826,300
Ingredion, Inc.	1,400	137,102
Kellogg Co.	6,600	470,184
The Kraft Heinz Co.	25,900	1,054,389
The Kroger Co.	15,500	690,990
Tyson Foods, Inc. Class A	27,564	1,715,859
		<u>6,894,824</u>
Health Care – Products — 0.7%		
Hologic, Inc. (a)	4,900	366,569

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Zimmer Biomet Holdings, Inc.	12,800	\$ 1,632,000
		<u>1,998,569</u>
Health Care – Services — 4.1%		
Centene Corp. (a)	12,000	984,120
Elevance Health, Inc.	15,652	8,029,006
HCA Healthcare, Inc.	9,000	2,159,640
Laboratory Corp. of America Holdings	2,700	635,796
Quest Diagnostics, Inc.	3,600	563,184
Universal Health Services, Inc. Class B	2,100	295,869
		<u>12,667,615</u>
Household Products & Wares — 0.8%		
Kimberly-Clark Corp.	18,153	2,464,270
Pharmaceuticals — 12.6%		
AbbVie, Inc.	48,966	7,913,395
AmerisourceBergen Corp.	5,600	927,976
Becton Dickinson and Co.	13,486	3,429,490
Bristol-Myers Squibb Co.	45,000	3,237,750
Cardinal Health, Inc.	4,900	376,663
Cigna Corp.	7,200	2,385,648
CVS Health Corp.	27,800	2,590,682
Henry Schein, Inc. (a)	2,800	223,636
Johnson & Johnson	13,700	2,420,105
McKesson Corp.	4,200	1,575,504
Merck & Co., Inc.	47,800	5,303,410
Pfizer, Inc.	118,900	6,092,436
Sanofi ADR	45,903	2,223,082
		<u>38,699,777</u>
		<u>82,307,754</u>
Energy — 10.9%		
Oil & Gas — 10.1%		
APA Corp.	7,100	331,428
Chevron Corp.	13,800	2,476,962
ConocoPhillips	26,400	3,115,200
Devon Energy Corp.	13,800	848,838
Diamondback Energy, Inc.	3,000	410,340
EOG Resources, Inc.	26,932	3,488,232
Exxon Mobil Corp.	83,100	9,165,930
Marathon Oil Corp.	15,300	414,171
Occidental Petroleum Corp.	19,200	1,209,408
Ovintiv, Inc.	5,300	268,763
PDC Energy, Inc.	2,000	126,960
Pioneer Natural Resources Co.	5,000	1,141,950
Range Resources Corp.	5,100	127,602
TotalEnergies SE	83,325	5,200,743
TotalEnergies SE Sponsored ADR	24,258	1,505,937
Valero Energy Corp.	8,600	1,090,996
		<u>30,923,460</u>
Pipelines — 0.8%		
Kinder Morgan, Inc.	47,600	860,608

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
ONEOK, Inc.	8,800	\$ 578,160
TC Energy Corp.	26,638	1,061,791
		2,500,559
		33,424,019
Financial — 22.9%		
Banks — 12.3%		
Bank of America Corp.	176,800	5,855,616
The Bank of New York Mellon Corp.	18,500	842,120
BOK Financial Corp.	1,400	145,306
Comerica, Inc.	2,800	187,180
Commerce Bancshares, Inc.	2,730	185,831
East West Bancorp, Inc.	3,000	197,700
Fifth Third Bancorp	77,850	2,554,258
The Goldman Sachs Group, Inc.	11,045	3,792,632
Huntington Bancshares, Inc.	207,756	2,929,360
JP Morgan Chase & Co.	62,100	8,327,610
KeyCorp.	20,300	353,626
Morgan Stanley	35,800	3,043,716
Northern Trust Corp.	4,400	389,356
Pinnacle Financial Partners, Inc.	800	58,720
The PNC Financial Services Group, Inc.	8,900	1,405,666
Prosperity Bancshares, Inc.	1,900	138,092
Regions Financial Corp.	20,100	433,356
Synovus Financial Corp.	1,300	48,815
Truist Financial Corp.	27,900	1,200,537
Wells Fargo & Co.	130,616	5,393,135
Zions Bancorp NA	3,400	167,144
		37,649,776
Diversified Financial Services — 1.6%		
American Express Co.	16,100	2,378,775
Ameriprise Financial, Inc.	2,400	747,288
Credit Acceptance Corp. (a) (b)	400	189,760
Discover Financial Services	6,100	596,763
SEI Investments Co.	3,100	180,730
Synchrony Financial	9,500	312,170
T. Rowe Price Group, Inc.	4,700	512,582
UWM Holdings Corp.	1,800	5,958
The Western Union Co.	6,800	93,636
		5,017,662
Insurance — 7.3%		
Aflac, Inc.	14,400	1,035,936
The Allstate Corp.	6,200	840,720
American Financial Group, Inc.	1,800	247,104
American International Group, Inc.	53,227	3,366,075
Arch Capital Group Ltd. (a)	8,300	521,074
Assurant, Inc.	1,200	150,072
Chubb Ltd.	25,975	5,730,085
Cincinnati Financial Corp.	3,400	348,126
Equitable Holdings, Inc.	83,223	2,388,500
Everest Re Group Ltd.	1,000	331,270
Fidelity National Financial, Inc.	5,900	221,958
Globe Life, Inc.	1,900	229,045

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
The Hartford Financial Services Group, Inc.	7,500	\$ 568,725
Loews Corp.	5,500	320,815
Markel Corp. (a)	320	421,597
MetLife, Inc.	18,600	1,346,082
Old Republic International Corp.	6,400	154,560
Principal Financial Group, Inc.	5,800	486,736
Prudential Financial, Inc.	8,200	815,572
Reinsurance Group of America, Inc.	1,400	198,926
RenaissanceRe Holdings Ltd.	1,000	184,230
The Travelers Cos., Inc.	9,800	1,837,402
Unum Group	4,200	172,326
Voya Financial, Inc.	2,800	172,172
W.R. Berkley Corp.	5,600	406,392
		<u>22,495,500</u>
Real Estate — 0.2%		
CBRE Group, Inc. Class A (a)	6,700	515,632
Jones Lang LaSalle, Inc. (a)	1,300	207,181
		<u>722,813</u>
Real Estate Investment Trusts (REITS) — 1.5%		
Equity Residential	39,267	2,316,753
Weyerhaeuser Co.	70,498	2,185,438
		<u>4,502,191</u>
		<u>70,387,942</u>
Industrial — 9.2%		
Aerospace & Defense — 1.4%		
The Boeing Co. (a)	6,394	1,217,993
L3 Harris Technologies, Inc.	14,197	2,955,957
		<u>4,173,950</u>
Building Materials — 0.5%		
Builders FirstSource, Inc. (a)	3,100	201,128
Carrier Global Corp.	15,866	654,473
Fortune Brands Innovations, Inc.	2,700	154,197
Masco Corp.	7,000	326,690
Owens Corning	2,900	247,370
		<u>1,583,858</u>
Electronics — 0.2%		
Arrow Electronics, Inc. (a)	2,000	209,140
Jabil, Inc.	4,100	279,620
Sensata Technologies Holding PLC	3,200	129,216
		<u>617,976</u>
Engineering & Construction — 0.0%		
TopBuild Corp. (a)	200	31,298
Environmental Controls — 0.1%		
Pentair PLC	3,500	157,430

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Hand & Machine Tools — 0.6%		
Snap-on, Inc.	1,500	\$ 342,735
Stanley Black & Decker, Inc.	18,300	1,374,696
		<u>1,717,431</u>
Machinery – Construction & Mining — 0.7%		
Caterpillar, Inc.	8,800	2,108,128
Oshkosh Corp.	1,300	114,647
		<u>2,222,775</u>
Machinery – Diversified — 0.2%		
AGCO Corp.	1,600	221,904
Dover Corp.	2,700	365,607
		<u>587,511</u>
Miscellaneous - Manufacturing — 2.3%		
Carlisle Cos., Inc.	1,100	259,215
General Electric Co.	67,323	5,640,994
Parker-Hannifin Corp.	2,700	785,700
Textron, Inc.	6,100	431,880
		<u>7,117,789</u>
Packaging & Containers — 0.6%		
Amcor PLC	41,900	499,029
Berry Global Group, Inc.	2,600	157,118
Crown Holdings, Inc.	3,600	295,956
Graphic Packaging Holding Co.	6,500	144,625
Packaging Corp. of America	2,600	332,566
Sealed Air Corp.	4,200	209,496
Sonoco Products Co.	2,100	127,491
WestRock Co.	5,000	175,800
		<u>1,942,081</u>
Shipbuilding — 0.1%		
Huntington Ingalls Industries, Inc.	900	207,612
Transportation — 2.5%		
C.H. Robinson Worldwide, Inc.	2,600	238,056
Expeditors International of Washington, Inc.	3,400	353,328
FedEx Corp.	5,300	917,960
Knight-Swift Transportation Holdings, Inc.	3,500	183,435
Landstar System, Inc.	800	130,320
United Parcel Service, Inc. Class B	34,347	5,970,882
		<u>7,793,981</u>
		<u>28,153,692</u>
Technology — 6.3%		
Computers — 1.6%		
CACI International, Inc. Class A (a)	400	120,236
Dell Technologies, Inc. Class C	5,100	205,122
DXC Technology Co. (a)	4,900	129,850
Hewlett Packard Enterprise Co.	34,500	550,620

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
HP, Inc.	34,400	\$ 924,328
International Business Machines Corp.	17,600	2,479,664
Leidos Holdings, Inc.	2,500	262,975
NetApp, Inc.	4,300	258,258
		<u>4,931,053</u>
Semiconductors — 3.2%		
Applied Materials, Inc.	17,900	1,743,102
KLA Corp.	2,800	1,055,684
Lam Research Corp.	2,900	1,218,870
QUALCOMM, Inc.	52,827	5,807,801
		<u>9,825,457</u>
Software — 1.5%		
Fidelity National Information Services, Inc.	10,100	685,285
Fiserv, Inc. (a)	11,200	1,131,984
Microsoft Corp.	11,409	2,736,106
		<u>4,553,375</u>
		<u>19,309,885</u>
Utilities — 6.2%		
Electric — 6.1%		
Alliant Energy Corp.	5,200	287,092
Dominion Energy, Inc.	42,900	2,630,628
Duke Energy Corp.	16,300	1,678,737
Edison International	7,400	470,788
Entergy Corp.	4,300	483,750
Evergy, Inc.	4,900	308,357
Eversource Energy	6,700	561,728
Exelon Corp.	26,000	1,123,980
OGE Energy Corp.	4,200	166,110
Pinnacle West Capital Corp.	2,400	182,496
PPL Corp.	15,600	455,832
Public Service Enterprise Group, Inc.	14,100	863,907
Sempra Energy	32,309	4,993,033
The Southern Co.	60,358	4,310,165
Vistra Corp.	9,600	222,720
		<u>18,739,323</u>
Gas — 0.1%		
National Fuel Gas Co.	1,600	101,280
UGI Corp.	4,400	163,108
		<u>264,388</u>
		<u>19,003,711</u>
TOTAL COMMON STOCK (Cost \$255,316,980)		<u>298,844,787</u>
PREFERRED STOCK — 1.1%		
Consumer, Cyclical — 1.0%		
Auto Manufacturers — 1.0%		
Dr Ing hc F Porsche AG (a)	13,278	1,347,136

MassMutual Diversified Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Volkswagen AG 6.014%	12,535	\$ 1,562,347
		<u>2,909,483</u>
Consumer, Non-cyclical — 0.1%		
Pharmaceuticals — 0.1%		
Becton Dickinson and Co. Convertible 6.000%	8,676	<u>434,494</u>
TOTAL PREFERRED STOCK		
(Cost \$4,178,984)		<u>3,343,977</u>
TOTAL EQUITIES		
(Cost \$259,495,964)		<u>302,188,764</u>
MUTUAL FUNDS — 0.8%		
Diversified Financial Services — 0.8%		
iShares Russell 1000 Value ETF	15,200	2,305,080
State Street Navigator Securities Lending Government Money Market Portfolio (c)	191,664	<u>191,664</u>
		<u>2,496,744</u>
TOTAL MUTUAL FUNDS		
(Cost \$2,546,232)		<u>2,496,744</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$262,042,196)		<u>304,685,508</u>
SHORT-TERM INVESTMENTS — 1.0%		
Mutual Fund — 0.0%		
T. Rowe Price Government Reserve Investment Fund	105	<u>105</u>
	Principal Amount	
Repurchase Agreement — 1.0%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 3,018,921	<u>3,018,921</u>
TOTAL SHORT-TERM INVESTMENTS		
(Cost \$3,019,026)		<u>3,019,026</u>
TOTAL INVESTMENTS — 100.2%		
(Cost \$265,061,222) (e)		307,704,534
Other Assets/(Liabilities) — (0.2)%		<u>(471,138)</u>
NET ASSETS — 100.0%		<u>\$ 307,233,396</u>

Abbreviation Legend

ADR American Depositary Receipt
ETF Exchange-Traded Fund

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$223,788 or 0.07% of net assets. The Fund received \$36,734 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to

securities lending activity. This amount is not reflected on the Portfolio of Investments. *(Note 2)*.

(c) Represents investment of security lending cash collateral. *(Note 2)*.

(d) Maturity value of \$3,019,350. Collateralized by U.S. Government Agency obligations with rates ranging from 0.000% - 3.000%, maturity dates ranging from 6/29/23 - 6/30/24, and an aggregate market value, including accrued interest, of \$3,079,334.

(e) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Fundamental Value Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 98.4%		
COMMON STOCK — 98.4%		
Basic Materials — 5.8%		
Chemicals — 5.8%		
Air Products & Chemicals, Inc.	23,665	\$ 7,294,973
Axalta Coating Systems Ltd. (a)	151,749	3,865,047
DuPont de Nemours, Inc.	120,064	8,239,992
Element Solutions, Inc.	85,834	1,561,320
International Flavors & Fragrances, Inc.	42,034	4,406,845
Olin Corp.	35,118	1,859,147
		<u>27,227,324</u>
		<u>27,227,324</u>
Communications — 4.4%		
Internet — 1.4%		
Alphabet, Inc. Class A (a)	59,356	5,236,980
Booking Holdings, Inc. (a)	697	1,404,650
		<u>6,641,630</u>
Media — 0.8%		
Comcast Corp. Class A	112,061	3,918,773
Telecommunications — 2.2%		
Cisco Systems, Inc.	98,691	4,701,639
T-Mobile US, Inc. (a)	39,835	5,576,900
		<u>10,278,539</u>
		<u>20,838,942</u>
Consumer, Cyclical — 5.3%		
Auto Parts & Equipment — 0.3%		
Aptiv PLC (a)	13,425	1,250,270
Distribution & Wholesale — 0.4%		
LKQ Corp.	38,564	2,059,703
Entertainment — 0.5%		
Marriott Vacations Worldwide Corp.	7,255	976,451
SeaWorld Entertainment, Inc. (a)	28,955	1,549,382
		<u>2,525,833</u>
Food Services — 0.5%		
Aramark	53,665	2,218,511

MassMutual Fundamental Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Home Furnishing — 0.4%		
Sony Group Corp. Sponsored ADR (b)	26,432	\$ 2,016,233
Lodging — 0.8%		
Las Vegas Sands Corp. (a)	52,898	2,542,807
MGM Resorts International	32,394	1,086,171
		<u>3,628,978</u>
Retail — 2.4%		
Advance Auto Parts, Inc.	19,027	2,797,540
AutoZone, Inc. (a)	2,236	5,514,378
Dollar General Corp.	8,910	2,194,087
Lithia Motors, Inc.	3,098	634,285
		<u>11,140,290</u>
		<u>24,839,818</u>
Consumer, Non-cyclical — 28.4%		
Agriculture — 1.7%		
Philip Morris International, Inc.	78,293	7,924,035
Beverages — 2.5%		
Coca-Cola Europacific Partners PLC	102,335	5,661,172
Keurig Dr Pepper, Inc.	122,582	4,371,274
Molson Coors Beverage Co. Class B	37,832	1,949,105
		<u>11,981,551</u>
Biotechnology — 0.2%		
Corteva, Inc.	15,627	918,555
Commercial Services — 1.2%		
FleetCor Technologies, Inc. (a)	9,800	1,800,064
Global Payments, Inc.	11,307	1,123,011
United Rentals, Inc. (a)	7,537	2,678,801
		<u>5,601,876</u>
Cosmetics & Personal Care — 0.5%		
The Procter & Gamble Co.	14,849	2,250,514
Food — 0.4%		
US Foods Holding Corp. (a)	59,481	2,023,544
Health Care – Products — 2.2%		
Avantor, Inc. (a)	76,723	1,618,088
Envista Holdings Corp. (a)	55,473	1,867,776
Hologic, Inc. (a)	20,148	1,507,272
LivaNova PLC (a)	19,283	1,070,978
Medtronic PLC	52,689	4,094,989
		<u>10,159,103</u>
Health Care – Services — 5.2%		
Centene Corp. (a)	51,736	4,242,869
Elevance Health, Inc.	5,410	2,775,168
Humana, Inc.	7,102	3,637,573
ICON PLC (a)	10,022	1,946,774

MassMutual Fundamental Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
UnitedHealth Group, Inc.	22,207	\$ 11,773,707
		<u>24,376,091</u>
Pharmaceuticals — 14.5%		
AbbVie, Inc.	20,134	3,253,856
AmerisourceBergen Corp.	18,584	3,079,554
Becton Dickinson and Co.	9,928	2,524,690
Bristol-Myers Squibb Co.	86,291	6,208,637
Cigna Corp.	34,188	11,327,852
CVS Health Corp.	117,984	10,994,929
Johnson & Johnson	61,332	10,834,298
McKesson Corp.	3,164	1,186,880
Merck & Co., Inc.	87,146	9,668,849
Perrigo Co. PLC	93,283	3,180,017
Sanofi ADR	122,139	5,915,192
		<u>68,174,754</u>
		<u>133,410,023</u>
Energy — 11.0%		
Oil & Gas — 8.9%		
Canadian Natural Resources Ltd.	55,319	3,071,864
Cenovus Energy, Inc. (b)	161,613	3,136,908
ConocoPhillips	50,419	5,949,442
Devon Energy Corp.	40,293	2,478,423
EOG Resources, Inc.	12,393	1,605,141
Hess Corp.	49,164	6,972,439
Marathon Petroleum Corp.	36,849	4,288,855
Phillips 66	70,502	7,337,848
Pioneer Natural Resources Co.	23,339	5,330,394
Valero Energy Corp.	11,904	1,510,142
		<u>41,681,456</u>
Oil & Gas Services — 1.5%		
Halliburton Co.	80,984	3,186,720
Schlumberger NV	70,065	3,745,675
		<u>6,932,395</u>
Pipelines — 0.6%		
Enbridge, Inc.	79,999	3,127,961
		<u>51,741,812</u>
Financial — 19.3%		
Banks — 8.7%		
Bank of America Corp.	117,166	3,880,538
The Goldman Sachs Group, Inc.	9,532	3,273,098
JP Morgan Chase & Co.	93,338	12,516,626
M&T Bank Corp.	13,547	1,965,128
Northern Trust Corp.	40,093	3,547,829
Truist Financial Corp.	44,087	1,897,064
US Bancorp	85,070	3,709,903
Wells Fargo & Co.	242,735	10,022,528
		<u>40,812,714</u>

MassMutual Fundamental Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Diversified Financial Services — 2.1%		
AerCap Holdings NV (a)	20,895	\$ 1,218,596
American Express Co.	7,207	1,064,834
Capital One Financial Corp.	9,259	860,717
The Charles Schwab Corp.	67,094	5,586,247
Intercontinental Exchange, Inc.	13,451	1,379,938
		<u>10,110,332</u>
Insurance — 7.0%		
The Allstate Corp.	51,741	7,016,080
American International Group, Inc.	37,804	2,390,725
Axis Capital Holdings Ltd.	23,991	1,299,592
Berkshire Hathaway, Inc. Class B (a)	32,884	10,157,868
Chubb Ltd.	39,140	8,634,284
Everest Re Group Ltd.	3,521	1,166,402
Willis Towers Watson PLC	8,954	2,189,969
		<u>32,854,920</u>
Real Estate — 0.2%		
The Howard Hughes Corp. (a)	13,282	1,015,010
Real Estate Investment Trusts (REITS) — 1.3%		
Corporate Office Properties Trust	119,918	3,110,673
VICI Properties, Inc.	89,503	2,899,897
		<u>6,010,570</u>
		<u>90,803,546</u>
Industrial — 12.0%		
Aerospace & Defense — 3.2%		
General Dynamics Corp.	21,662	5,374,559
Howmet Aerospace, Inc.	74,536	2,937,464
Raytheon Technologies Corp.	65,894	6,650,022
		<u>14,962,045</u>
Building Materials — 1.6%		
CRH PLC Sponsored ADR (b)	56,545	2,249,926
Masco Corp.	38,015	1,774,160
MDU Resources Group, Inc.	63,507	1,926,802
Mohawk Industries, Inc. (a)	16,230	1,659,031
		<u>7,609,919</u>
Electronics — 0.5%		
Allegion PLC	11,925	1,255,225
Fortive Corp.	21,224	1,363,642
		<u>2,618,867</u>
Engineering & Construction — 0.5%		
AECOM	25,721	2,184,485
Hand & Machine Tools — 0.7%		
Stanley Black & Decker, Inc.	44,791	3,364,700

MassMutual Fundamental Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Machinery – Construction & Mining — 1.4%		
BWX Technologies, Inc.	34,573	\$ 2,008,000
Caterpillar, Inc.	8,975	2,150,051
Vertiv Holdings Co.	165,209	2,256,755
		<u>6,414,806</u>
Machinery – Diversified — 2.6%		
Deere & Co.	18,071	7,748,122
Dover Corp.	7,951	1,076,645
Otis Worldwide Corp.	22,572	1,767,613
Westinghouse Air Brake Technologies Corp.	15,136	1,510,724
		<u>12,103,104</u>
Miscellaneous - Manufacturing — 0.5%		
Eaton Corp. PLC	15,181	2,382,658
Transportation — 1.0%		
J.B. Hunt Transport Services, Inc.	12,398	2,161,715
Union Pacific Corp.	12,002	2,485,254
		<u>4,646,969</u>
		<u>56,287,553</u>
Technology — 8.4%		
Computers — 1.4%		
CACI International, Inc. Class A (a)	6,479	1,947,523
Cognizant Technology Solutions Corp. Class A	47,157	2,696,909
Leidos Holdings, Inc.	18,954	1,993,771
		<u>6,638,203</u>
Semiconductors — 4.0%		
Advanced Micro Devices, Inc. (a)	21,799	1,411,921
Applied Materials, Inc.	23,839	2,321,442
Broadcom, Inc.	3,957	2,212,477
Lam Research Corp.	2,649	1,113,375
Microchip Technology, Inc.	49,266	3,460,936
Micron Technology, Inc.	37,121	1,855,308
NXP Semiconductor NV	4,887	772,293
Qorvo, Inc. (a)	7,416	672,186
QUALCOMM, Inc.	45,517	5,004,139
		<u>18,824,077</u>
Software — 3.0%		
Activision Blizzard, Inc.	18,698	1,431,332
Electronic Arts, Inc.	15,692	1,917,248
Fidelity National Information Services, Inc.	44,188	2,998,156
Oracle Corp.	72,210	5,902,445
SS&C Technologies Holdings, Inc	35,764	1,861,874
		<u>14,111,055</u>
		<u>39,573,335</u>

MassMutual Fundamental Value Fund — Portfolio of Investments (Continued)

	<u>Number of Shares</u>	<u>Value</u>
Utilities — 3.8%		
Electric — 3.8%		
CenterPoint Energy, Inc.	138,665	\$ 4,158,563
Entergy Corp.	39,638	4,459,275
Exelon Corp.	38,898	1,681,561
FirstEnergy Corp.	59,338	2,488,636
Pinnacle West Capital Corp.	63,747	4,847,322
		<u>17,635,357</u>
		<u>17,635,357</u>
TOTAL COMMON STOCK		
(Cost \$383,384,429)		<u>462,357,710</u>
TOTAL EQUITIES		
(Cost \$383,384,429)		<u>462,357,710</u>
MUTUAL FUNDS — 0.8%		
Diversified Financial Services — 0.8%		
State Street Navigator Securities Lending Government Money Market Portfolio (c)	3,534,820	<u>3,534,820</u>
TOTAL MUTUAL FUNDS		
(Cost \$3,534,820)		<u>3,534,820</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$386,919,249)		<u>465,892,530</u>
	<u>Principal Amount</u>	
SHORT-TERM INVESTMENTS — 1.8%		
Repurchase Agreement — 1.8%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 8,446,525	<u>8,446,525</u>
TOTAL SHORT-TERM INVESTMENTS		
(Cost \$8,446,525)		<u>8,446,525</u>
TOTAL INVESTMENTS — 101.0%		
(Cost \$395,365,774) (e)		474,339,055
Other Assets/(Liabilities) — (1.0)%		<u>(4,499,504)</u>
NET ASSETS — 100.0%		<u>\$ 469,839,551</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$5,346,789 or 1.14% of net assets. The Fund received \$1,963,124 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).

(c) Represents investment of security lending cash collateral. (Note 2).

(d) Maturity value of \$8,447,726. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of

6/29/23, and an aggregate market value, including accrued interest, of \$8,615,554.

(e) See Note 3 for aggregate cost for federal tax purposes.

MM S&P 500 Index Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 99.3%		
COMMON STOCK — 99.3%		
Basic Materials — 2.2%		
Chemicals — 1.7%		
Air Products & Chemicals, Inc.	15,951	\$ 4,917,055
Albemarle Corp.	8,375	1,816,203
Celanese Corp.	7,292	745,534
CF Industries Holdings, Inc.	14,104	1,201,661
Dow, Inc.	50,756	2,557,595
DuPont de Nemours, Inc.	35,748	2,453,385
Eastman Chemical Co.	8,604	700,710
Ecolab, Inc.	17,670	2,572,045
FMC Corp.	9,115	1,137,552
International Flavors & Fragrances, Inc.	18,223	1,910,499
Linde PLC	35,469	11,569,279
LyondellBasell Industries NV Class A	18,305	1,519,864
The Mosaic Co.	24,397	1,070,296
PPG Industries, Inc.	16,971	2,133,934
The Sherwin-Williams Co.	16,883	4,006,842
		<u>40,312,454</u>
Forest Products & Paper — 0.0%		
International Paper Co.	25,658	888,537
Iron & Steel — 0.2%		
Nucor Corp.	18,482	2,436,112
Steel Dynamics, Inc.	11,963	1,168,785
		<u>3,604,897</u>
Mining — 0.3%		
Freeport-McMoRan, Inc.	102,224	3,884,512
Newmont Corp.	56,870	2,684,264
		<u>6,568,776</u>
		<u>51,374,664</u>
Communications — 10.8%		
Advertising — 0.1%		
The Interpublic Group of Cos., Inc.	28,018	933,280
Omnicom Group, Inc.	14,794	1,206,746
		<u>2,140,026</u>
Internet — 7.3%		
Alphabet, Inc. Class A (a)	428,449	37,802,055
Alphabet, Inc. Class C (a)	380,039	33,720,860
Amazon.com, Inc. (a)	636,741	53,486,244

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Booking Holdings, Inc. (a)	2,791	\$ 5,624,647
CDW Corp.	9,752	1,741,512
eBay, Inc.	39,026	1,618,408
Etsy, Inc. (a)	8,940	1,070,833
Expedia Group, Inc. (a)	10,801	946,168
F5, Inc. (a)	4,251	610,061
Gen Digital, Inc.	41,461	888,509
Match Group, Inc. (a)	20,345	844,114
Meta Platforms, Inc. Class A (a)	161,311	19,412,166
Netflix, Inc. (a)	31,911	9,409,916
VeriSign, Inc. (a)	6,625	1,361,040
		<u>168,536,533</u>
Media — 1.3%		
Charter Communications, Inc. Class A (a)	7,724	2,619,208
Comcast Corp. Class A	309,285	10,815,696
DISH Network Corp. Class A (a)	17,859	250,740
FactSet Research Systems, Inc.	2,760	1,107,340
Fox Corp. Class A	21,464	651,862
Fox Corp. Class B	9,428	268,227
News Corp. Class A	27,151	494,148
News Corp. Class B	8,697	160,373
Paramount Global Class B	35,813	604,523
The Walt Disney Co. (a)	130,677	11,353,218
Warner Bros Discovery, Inc. (a)	157,941	1,497,281
		<u>29,822,616</u>
Telecommunications — 2.1%		
Arista Networks, Inc. (a)	17,823	2,162,821
AT&T, Inc.	510,996	9,407,436
Cisco Systems, Inc.	294,989	14,053,276
Corning, Inc.	54,404	1,737,664
Juniper Networks, Inc.	23,191	741,184
Lumen Technologies, Inc.	69,237	361,417
Motorola Solutions, Inc.	11,998	3,092,005
T-Mobile US, Inc. (a)	42,881	6,003,340
Verizon Communications, Inc.	301,196	11,867,123
		<u>49,426,266</u>
		<u>249,925,441</u>
Consumer, Cyclical — 9.0%		
Airlines — 0.2%		
Alaska Air Group, Inc. (a)	9,425	404,709
American Airlines Group, Inc. (a)	47,461	603,704
Delta Air Lines, Inc. (a)	46,371	1,523,751
Southwest Airlines Co. (a)	42,714	1,438,180
United Airlines Holdings, Inc. (a)	23,501	885,988
		<u>4,856,332</u>
Apparel — 0.5%		
NIKE, Inc. Class B	90,246	10,559,684
Ralph Lauren Corp.	2,898	306,232
Tapestry, Inc.	17,170	653,834

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
VF Corp.	23,513	\$ 649,194
		<u>12,168,944</u>
Auto Manufacturers — 1.5%		
Cummins, Inc.	10,174	2,465,058
Ford Motor Co.	282,174	3,281,684
General Motors Co.	102,345	3,442,886
PACCAR, Inc.	24,789	2,453,367
Tesla, Inc. (a)	192,517	23,714,244
		<u>35,357,239</u>
Auto Parts & Equipment — 0.1%		
Aptiv PLC (a)	19,596	1,824,976
BorgWarner, Inc.	16,553	666,258
		<u>2,491,234</u>
Distribution & Wholesale — 0.3%		
Copart, Inc. (a)	30,868	1,879,552
Fastenal Co.	41,140	1,946,745
LKQ Corp.	18,498	987,978
Pool Corp.	2,796	845,315
W.W. Grainger, Inc.	3,224	1,793,350
		<u>7,452,940</u>
Entertainment — 0.1%		
Caesars Entertainment, Inc. (a)	15,736	654,617
Live Nation Entertainment, Inc. (a)	10,370	723,204
		<u>1,377,821</u>
Home Builders — 0.3%		
D.R. Horton, Inc.	22,570	2,011,890
Lennar Corp. Class A	18,447	1,669,453
NVR, Inc. (a)	215	991,705
PulteGroup, Inc.	16,261	740,363
		<u>5,413,411</u>
Home Furnishing — 0.0%		
Whirlpool Corp.	3,945	558,060
Housewares — 0.0%		
Newell Brands, Inc.	27,141	355,004
Leisure Time — 0.1%		
Carnival Corp. (a)	72,736	586,252
Norwegian Cruise Line Holdings Ltd. (a)	30,620	374,789
Royal Caribbean Cruises Ltd. (a)	15,669	774,519
		<u>1,735,560</u>
Lodging — 0.4%		
Hilton Worldwide Holdings, Inc.	19,404	2,451,890
Las Vegas Sands Corp. (a)	23,593	1,134,116
Marriott International, Inc. Class A	19,326	2,877,448
MGM Resorts International	22,521	755,129

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Wynn Resorts Ltd. (a)	7,403	\$ 610,525
		<u>7,829,108</u>
Retail — 5.5%		
Advance Auto Parts, Inc.	4,379	643,844
AutoZone, Inc. (a)	1,367	3,371,268
Bath & Body Works, Inc.	16,380	690,253
Best Buy Co., Inc.	14,236	1,141,870
CarMax, Inc. (a)	11,265	685,926
Chipotle Mexican Grill, Inc. (a)	1,978	2,744,455
Costco Wholesale Corp.	31,745	14,491,593
Darden Restaurants, Inc.	8,793	1,216,336
Dollar General Corp.	16,121	3,969,796
Dollar Tree, Inc. (a)	15,099	2,135,603
Domino's Pizza, Inc.	2,545	881,588
Genuine Parts Co.	10,203	1,770,323
The Home Depot, Inc.	73,414	23,188,546
Lowe's Cos., Inc.	44,463	8,858,808
McDonald's Corp.	52,499	13,835,061
O'Reilly Automotive, Inc. (a)	4,505	3,802,355
Ross Stores, Inc.	24,945	2,895,366
Starbucks Corp.	82,211	8,155,331
Target Corp.	33,092	4,932,032
The TJX Cos., Inc.	83,514	6,647,714
Tractor Supply Co.	7,850	1,766,015
Ulta Beauty, Inc. (a)	3,690	1,730,868
Walgreens Boots Alliance, Inc.	51,345	1,918,249
Walmart, Inc.	101,397	14,377,081
Yum! Brands, Inc.	20,293	2,599,127
		<u>128,449,408</u>
Toys, Games & Hobbies — 0.0%		
Hasbro, Inc.	9,474	578,009
		<u>208,623,070</u>
Consumer, Non-cyclical — 23.3%		
Agriculture — 0.9%		
Altria Group, Inc.	128,440	5,870,993
Archer-Daniels-Midland Co.	39,532	3,670,546
Philip Morris International, Inc.	111,229	11,257,487
		<u>20,799,026</u>
Beverages — 1.9%		
Brown-Forman Corp. Class B	13,258	870,785
The Coca-Cola Co.	279,039	17,749,671
Constellation Brands, Inc. Class A	11,693	2,709,853
Keurig Dr Pepper, Inc.	60,532	2,158,571
Molson Coors Beverage Co. Class B	13,232	681,713
Monster Beverage Corp. (a)	27,353	2,777,150
PepsiCo, Inc.	98,882	17,864,022
		<u>44,811,765</u>
Biotechnology — 1.9%		
Amgen, Inc.	38,229	10,040,465

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Bio-Rad Laboratories, Inc. Class A (a)	1,564	\$ 657,646
Biogen, Inc. (a)	10,309	2,854,768
Corteva, Inc.	51,495	3,026,876
Gilead Sciences, Inc.	90,192	7,742,983
Illumina, Inc. (a)	11,364	2,297,801
Incyte Corp. (a)	13,316	1,069,541
Moderna, Inc. (a)	23,770	4,269,568
Regeneron Pharmaceuticals, Inc. (a)	7,676	5,538,157
Vertex Pharmaceuticals, Inc. (a)	18,450	5,327,991
		<u>42,825,796</u>
Commercial Services — 1.8%		
Automatic Data Processing, Inc.	29,749	7,105,846
Cintas Corp.	6,222	2,809,980
CoStar Group, Inc. (a)	29,192	2,255,958
Equifax, Inc.	8,704	1,691,709
FleetCor Technologies, Inc. (a)	5,260	966,157
Gartner, Inc. (a)	5,707	1,918,351
Global Payments, Inc.	19,416	1,928,397
MarketAxess Holdings, Inc.	2,684	748,541
Moody's Corp.	11,297	3,147,570
PayPal Holdings, Inc. (a)	81,975	5,838,259
Quanta Services, Inc.	10,203	1,453,927
Robert Half International, Inc.	7,689	567,679
Rollins, Inc.	16,887	617,051
S&P Global, Inc.	23,920	8,011,765
United Rentals, Inc. (a)	4,966	1,765,016
Verisk Analytics, Inc.	11,130	1,963,555
		<u>42,789,761</u>
Cosmetics & Personal Care — 1.5%		
Colgate-Palmolive Co.	59,964	4,724,563
The Estee Lauder Cos., Inc. Class A	16,624	4,124,581
The Procter & Gamble Co.	170,161	25,789,601
		<u>34,638,745</u>
Food — 1.3%		
Campbell Soup Co.	14,375	815,781
Conagra Brands, Inc.	34,302	1,327,487
General Mills, Inc.	42,720	3,582,072
The Hershey Co.	10,578	2,449,547
Hormel Foods Corp.	20,880	951,084
The J.M. Smucker Co.	7,665	1,214,596
Kellogg Co.	18,427	1,312,740
The Kraft Heinz Co.	57,497	2,340,703
The Kroger Co.	46,533	2,074,441
Lamb Weston Holdings, Inc.	10,162	908,076
McCormick & Co., Inc.	18,116	1,501,635
Mondelez International, Inc. Class A	97,915	6,526,035
Sysco Corp.	36,504	2,790,731
Tyson Foods, Inc. Class A	20,522	1,277,495
		<u>29,072,423</u>
Health Care – Products — 3.8%		
Abbott Laboratories	125,176	13,743,073
Align Technology, Inc. (a)	5,266	1,110,599

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Baxter International, Inc.	36,028	\$ 1,836,347
Bio-Techne Corp.	11,312	937,539
Boston Scientific Corp. (a)	102,431	4,739,482
The Cooper Cos., Inc.	3,537	1,169,580
Danaher Corp.	46,975	12,468,104
Edwards Lifesciences Corp. (a)	44,463	3,317,384
Hologic, Inc. (a)	18,049	1,350,246
IDEXX Laboratories, Inc. (a)	5,957	2,430,218
Intuitive Surgical, Inc. (a)	25,414	6,743,605
Medtronic PLC	95,248	7,402,675
PerkinElmer, Inc.	9,079	1,273,057
ResMed, Inc.	10,490	2,183,284
Steris PLC	7,091	1,309,637
Stryker Corp.	24,141	5,902,233
Teleflex, Inc.	3,353	837,009
Thermo Fisher Scientific, Inc.	28,126	15,488,707
Waters Corp. (a)	4,254	1,457,335
West Pharmaceutical Services, Inc.	5,378	1,265,712
Zimmer Biomet Holdings, Inc.	15,133	1,929,458
		<u>88,895,284</u>
Health Care – Services — 2.8%		
Catalent, Inc. (a)	13,242	596,022
Centene Corp. (a)	40,811	3,346,910
Charles River Laboratories International, Inc. (a)	3,677	801,218
DaVita, Inc. (a)	3,739	279,191
Elevance Health, Inc.	17,106	8,774,865
HCA Healthcare, Inc.	15,251	3,659,630
Humana, Inc.	9,099	4,660,417
IQVIA Holdings, Inc. (a)	13,341	2,733,438
Laboratory Corp. of America Holdings	6,374	1,500,950
Molina Healthcare, Inc. (a)	4,179	1,379,989
Quest Diagnostics, Inc.	8,204	1,283,434
UnitedHealth Group, Inc.	67,080	35,564,474
Universal Health Services, Inc. Class B	4,480	631,187
		<u>65,211,725</u>
Household Products & Wares — 0.3%		
Avery Dennison Corp.	5,825	1,054,325
Church & Dwight Co., Inc.	17,473	1,408,498
The Clorox Co.	8,929	1,253,007
Kimberly-Clark Corp.	24,185	3,283,114
		<u>6,998,944</u>
Pharmaceuticals — 7.1%		
AbbVie, Inc.	126,808	20,493,441
AmerisourceBergen Corp.	11,575	1,918,093
Becton Dickinson and Co.	20,466	5,204,504
Bristol-Myers Squibb Co.	152,357	10,962,086
Cardinal Health, Inc.	18,831	1,447,539
Cigna Corp.	21,891	7,253,364
CVS Health Corp.	94,268	8,784,835
Dentsply Sirona, Inc.	15,796	502,945
DexCom, Inc. (a)	27,767	3,144,335
Eli Lilly & Co.	56,549	20,687,886
Henry Schein, Inc. (a)	9,685	773,541

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Johnson & Johnson	187,711	\$ 33,159,148
McKesson Corp.	10,201	3,826,599
Merck & Co., Inc.	181,906	20,182,471
Organon & Co.	18,329	511,929
Pfizer, Inc.	402,788	20,638,857
Viatis, Inc.	87,554	974,476
Zoetis, Inc.	33,336	4,885,391
		<u>165,351,440</u>
		<u>541,394,909</u>
Energy — 5.4%		
Energy – Alternate Sources — 0.2%		
Enphase Energy, Inc. (a)	9,770	2,588,659
First Solar, Inc. (a)	7,118	1,066,206
SolarEdge Technologies, Inc. (a)	4,026	1,140,445
		<u>4,795,310</u>
Oil & Gas — 4.4%		
APA Corp.	23,042	1,075,601
Chevron Corp.	127,564	22,896,462
ConocoPhillips	89,290	10,536,220
Coterra Energy, Inc.	56,626	1,391,301
Devon Energy Corp.	46,672	2,870,795
Diamondback Energy, Inc.	12,630	1,727,531
EOG Resources, Inc.	42,044	5,445,539
EQT Corp.	26,082	882,354
Exxon Mobil Corp.	295,378	32,580,193
Hess Corp.	19,982	2,833,847
Marathon Oil Corp.	45,622	1,234,988
Marathon Petroleum Corp.	33,750	3,928,162
Occidental Petroleum Corp.	52,329	3,296,204
Phillips 66	34,036	3,542,467
Pioneer Natural Resources Co.	17,115	3,908,895
Valero Energy Corp.	27,750	3,520,365
		<u>101,670,924</u>
Oil & Gas Services — 0.4%		
Baker Hughes Co.	71,955	2,124,831
Halliburton Co.	65,586	2,580,809
Schlumberger NV	101,430	5,422,448
		<u>10,128,088</u>
Pipelines — 0.4%		
Kinder Morgan, Inc.	142,156	2,570,180
ONEOK, Inc.	32,265	2,119,811
Targa Resources Corp.	16,404	1,205,694
The Williams Cos., Inc.	87,427	2,876,348
		<u>8,772,033</u>
		<u>125,366,355</u>

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Financial — 15.5%		
Banks — 4.8%		
Bank of America Corp.	500,342	\$ 16,571,327
The Bank of New York Mellon Corp.	53,082	2,416,293
Citigroup, Inc.	138,624	6,269,964
Citizens Financial Group, Inc.	34,914	1,374,564
Comerica, Inc.	9,176	613,416
Fifth Third Bancorp	49,716	1,631,182
First Republic Bank	13,173	1,605,657
The Goldman Sachs Group, Inc.	24,254	8,328,338
Huntington Bancshares, Inc.	104,334	1,471,109
JP Morgan Chase & Co.	210,554	28,235,291
KeyCorp.	66,841	1,164,370
M&T Bank Corp.	12,376	1,795,263
Morgan Stanley	94,415	8,027,163
Northern Trust Corp.	15,138	1,339,562
The PNC Financial Services Group, Inc.	28,917	4,567,151
Regions Financial Corp.	67,236	1,449,608
Signature Bank	4,649	535,658
State Street Corp.	26,123	2,026,361
SVB Financial Group (a)	4,261	980,627
Truist Financial Corp.	94,815	4,079,889
US Bancorp	96,646	4,214,732
Wells Fargo & Co.	273,049	11,274,193
Zions Bancorp NA	11,051	543,267
		<u>110,514,985</u>
Diversified Financial Services — 3.9%		
American Express Co.	42,965	6,348,079
Ameriprise Financial, Inc.	7,650	2,381,981
BlackRock, Inc.	10,762	7,626,276
Capital One Financial Corp.	27,457	2,552,403
Choe Global Markets, Inc.	7,677	963,233
The Charles Schwab Corp.	109,336	9,103,315
CME Group, Inc.	25,908	4,356,689
Discover Financial Services	19,728	1,929,990
Franklin Resources, Inc.	19,879	524,408
Intercontinental Exchange, Inc.	39,922	4,095,598
Invesco Ltd.	33,387	600,632
Mastercard, Inc. Class A	60,895	21,175,018
Nasdaq, Inc.	24,487	1,502,278
Raymond James Financial, Inc.	13,839	1,478,697
Synchrony Financial	32,382	1,064,073
T. Rowe Price Group, Inc.	16,016	1,746,705
Visa, Inc. Class A	117,325	24,375,442
		<u>91,824,817</u>
Insurance — 4.1%		
Aflac, Inc.	40,561	2,917,958
The Allstate Corp.	19,071	2,586,028
American International Group, Inc.	53,419	3,378,218
Aon PLC Class A	14,872	4,463,682
Arch Capital Group Ltd. (a)	26,680	1,674,970
Arthur J Gallagher & Co.	15,195	2,864,865
Assurant, Inc.	3,704	463,222
Berkshire Hathaway, Inc. Class B (a)	129,348	39,955,597

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Brown & Brown, Inc.	16,835	\$ 959,090
Chubb Ltd.	29,823	6,578,954
Cincinnati Financial Corp.	11,122	1,138,782
Everest Re Group Ltd.	2,784	922,256
Globe Life, Inc.	6,542	788,638
The Hartford Financial Services Group, Inc.	22,783	1,727,635
Lincoln National Corp.	11,351	348,703
Loews Corp.	14,094	822,103
Marsh & McLennan Cos., Inc.	35,635	5,896,880
MetLife, Inc.	47,487	3,436,634
Principal Financial Group, Inc.	16,307	1,368,483
The Progressive Corp.	41,857	5,429,271
Prudential Financial, Inc.	26,546	2,640,265
The Travelers Cos., Inc.	16,839	3,157,144
W.R. Berkley Corp.	14,837	1,076,721
Willis Towers Watson PLC	7,767	1,899,653
		<u>96,495,752</u>
Real Estate — 0.1%		
CBRE Group, Inc. Class A (a)	22,784	<u>1,753,457</u>
Real Estate Investment Trusts (REITS) — 2.6%		
Alexandria Real Estate Equities, Inc.	10,770	1,568,866
American Tower Corp.	33,447	7,086,081
AvalonBay Communities, Inc.	10,001	1,615,362
Boston Properties, Inc.	10,064	680,125
Camden Property Trust	7,755	867,629
Crown Castle, Inc.	30,957	4,199,007
Digital Realty Trust, Inc.	20,594	2,064,960
Equinix, Inc.	6,661	4,363,155
Equity Residential	24,316	1,434,644
Essex Property Trust, Inc.	4,673	990,302
Extra Space Storage, Inc.	9,654	1,420,876
Federal Realty Investment Trust	5,346	540,160
Healthpeak Properties, Inc.	38,552	966,499
Host Hotels & Resorts, Inc.	51,639	828,806
Invitation Homes, Inc.	41,640	1,234,210
Iron Mountain, Inc.	20,986	1,046,152
Kimco Realty Corp.	44,233	936,855
Mid-America Apartment Communities, Inc.	8,301	1,303,174
Prologis, Inc.	66,102	7,451,678
Public Storage	11,289	3,163,065
Realty Income Corp.	45,081	2,859,488
Regency Centers Corp.	11,008	688,000
SBA Communications Corp.	7,727	2,165,955
Simon Property Group, Inc.	23,477	2,758,078
UDR, Inc.	22,305	863,873
Ventas, Inc.	28,852	1,299,783
VICI Properties, Inc.	69,511	2,252,156
Vornado Realty Trust	11,626	241,937
Welltower, Inc.	33,978	2,227,258
Weyerhaeuser Co.	52,969	<u>1,642,039</u>
		<u>60,760,173</u>
		<u>361,349,184</u>

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Industrial — 8.4%		
Aerospace & Defense — 1.8%		
The Boeing Co. (a)	40,119	\$ 7,642,268
General Dynamics Corp.	16,213	4,022,607
Howmet Aerospace, Inc.	26,626	1,049,331
L3 Harris Technologies, Inc.	13,679	2,848,105
Lockheed Martin Corp.	16,709	8,128,761
Northrop Grumman Corp.	10,358	5,651,428
Raytheon Technologies Corp.	105,657	10,662,905
TransDigm Group, Inc.	3,723	2,344,187
		<u>42,349,592</u>
Building Materials — 0.4%		
Carrier Global Corp.	60,074	2,478,053
Johnson Controls International PLC	49,186	3,147,904
Martin Marietta Materials, Inc.	4,409	1,490,110
Masco Corp.	16,041	748,633
Mohawk Industries, Inc. (a)	3,820	390,480
Vulcan Materials Co.	9,625	1,685,434
		<u>9,940,614</u>
Electrical Components & Equipment — 0.3%		
AMETEK, Inc.	16,574	2,315,719
Emerson Electric Co.	42,260	4,059,495
Generac Holdings, Inc. (a)	4,457	448,642
		<u>6,823,856</u>
Electronics — 1.2%		
Agilent Technologies, Inc.	21,136	3,163,003
Allegion PLC	6,240	656,822
Amphenol Corp. Class A	42,892	3,265,797
Fortive Corp.	25,589	1,644,093
Garmin Ltd.	10,981	1,013,437
Honeywell International, Inc.	48,221	10,333,760
Keysight Technologies, Inc. (a)	12,812	2,191,749
Mettler-Toledo International, Inc. (a)	1,603	2,317,056
TE Connectivity Ltd.	22,859	2,624,213
Trimble, Inc. (a)	17,983	909,221
		<u>28,119,151</u>
Engineering & Construction — 0.1%		
Jacobs Solutions, Inc.	9,248	1,110,407
Environmental Controls — 0.3%		
Pentair PLC	12,006	540,030
Republic Services, Inc.	14,617	1,885,447
Waste Management, Inc.	26,768	4,199,364
		<u>6,624,841</u>
Hand & Machine Tools — 0.1%		
Snap-on, Inc.	3,846	878,773
Stanley Black & Decker, Inc.	10,468	786,356
		<u>1,665,129</u>

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Machinery – Construction & Mining — 0.4%		
Caterpillar, Inc.	37,311	\$ 8,938,223
Machinery – Diversified — 0.9%		
Deere & Co.	19,693	8,443,571
Dover Corp.	9,999	1,353,965
IDEX Corp.	5,341	1,219,510
Ingersoll Rand, Inc.	29,219	1,526,693
Nordson Corp.	3,842	913,320
Otis Worldwide Corp.	30,019	2,350,788
Rockwell Automation, Inc.	8,237	2,121,604
Westinghouse Air Brake Technologies Corp.	13,052	1,302,720
Xylem, Inc.	12,785	1,413,637
		<u>20,645,808</u>
Miscellaneous - Manufacturing — 1.2%		
3M Co.	39,558	4,743,795
A.O. Smith Corp.	9,116	521,800
Eaton Corp. PLC	28,434	4,462,716
General Electric Co.	78,557	6,582,291
Illinois Tool Works, Inc.	19,985	4,402,696
Parker-Hannifin Corp.	9,158	2,664,978
Teledyne Technologies, Inc. (a)	3,378	1,350,896
Textron, Inc.	14,863	1,052,300
Trane Technologies PLC	16,527	2,778,024
		<u>28,559,496</u>
Packaging & Containers — 0.2%		
Amcor PLC	106,614	1,269,773
Ball Corp.	22,705	1,161,134
Packaging Corp. of America	6,617	846,380
Sealed Air Corp.	10,235	510,522
WestRock Co.	18,379	646,205
		<u>4,434,014</u>
Shipbuilding — 0.0%		
Huntington Ingalls Industries, Inc.	2,838	654,670
Transportation — 1.5%		
C.H. Robinson Worldwide, Inc.	8,503	778,535
CSX Corp.	151,077	4,680,366
Expeditors International of Washington, Inc.	11,457	1,190,611
FedEx Corp.	17,143	2,969,168
J.B. Hunt Transport Services, Inc.	5,884	1,025,934
Norfolk Southern Corp.	16,624	4,096,486
Old Dominion Freight Line, Inc.	6,500	1,844,570
Union Pacific Corp.	44,128	9,137,585
United Parcel Service, Inc. Class B	52,424	9,113,388
		<u>34,836,643</u>
		<u>194,702,444</u>
Technology — 21.5%		
Computers — 7.5%		
Accenture PLC Class A	45,184	12,056,898

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Apple, Inc.	1,073,100	\$ 139,427,883
Cognizant Technology Solutions Corp. Class A	36,889	2,109,682
DXC Technology Co. (a)	16,034	424,901
EPAM Systems, Inc. (a)	4,155	1,361,760
Fortinet, Inc. (a)	46,574	2,277,003
Hewlett Packard Enterprise Co.	92,223	1,471,879
HP, Inc.	63,887	1,716,644
International Business Machines Corp.	64,858	9,137,843
Leidos Holdings, Inc.	9,877	1,038,962
NetApp, Inc.	15,579	935,675
Seagate Technology Holdings PLC	13,705	721,020
Western Digital Corp. (a)	22,546	711,326
		<u>173,391,476</u>
Office & Business Equipment — 0.0%		
Zebra Technologies Corp. Class A (a)	3,742	<u>959,486</u>
Semiconductors — 4.8%		
Advanced Micro Devices, Inc. (a)	115,458	7,478,215
Analog Devices, Inc.	36,987	6,066,978
Applied Materials, Inc.	61,858	6,023,732
Broadcom, Inc.	29,059	16,247,759
Intel Corp.	295,708	7,815,562
KLA Corp.	10,127	3,818,183
Lam Research Corp.	9,808	4,122,302
Microchip Technology, Inc.	39,535	2,777,334
Micron Technology, Inc.	78,256	3,911,235
Monolithic Power Systems, Inc.	3,243	1,146,757
NVIDIA Corp.	178,623	26,103,965
NXP Semiconductor NV	18,633	2,944,573
ON Semiconductor Corp. (a)	30,776	1,919,499
Qorvo, Inc. (a)	7,267	658,681
QUALCOMM, Inc.	80,400	8,839,176
Skyworks Solutions, Inc.	11,496	1,047,630
Teradyne, Inc.	11,065	966,528
Texas Instruments, Inc.	65,160	<u>10,765,735</u>
		<u>112,653,844</u>
Software — 9.2%		
Activision Blizzard, Inc.	51,144	3,915,073
Adobe, Inc. (a)	33,332	11,217,218
Akamai Technologies, Inc. (a)	11,253	948,628
ANSYS, Inc. (a)	6,300	1,522,017
Autodesk, Inc. (a)	15,406	2,878,919
Broadridge Financial Solutions, Inc.	8,430	1,130,716
Cadence Design Systems, Inc. (a)	19,587	3,146,456
Ceridian HCM Holding, Inc. (a)	11,217	719,570
Electronic Arts, Inc.	18,833	2,301,016
Fidelity National Information Services, Inc.	42,673	2,895,363
Fiserv, Inc. (a)	45,404	4,588,982
Intuit, Inc.	20,186	7,856,795
Jack Henry & Associates, Inc.	5,221	916,599
Microsoft Corp.	535,007	128,305,379
MSCI, Inc.	5,733	2,666,820
Oracle Corp.	110,220	9,009,383
Paychex, Inc.	22,878	2,643,782
Paycom Software, Inc. (a)	3,494	1,084,223

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
PTC, Inc. (a)	7,646	\$ 917,826
Roper Technologies, Inc.	7,646	3,303,760
Salesforce, Inc. (a)	71,636	9,498,217
ServiceNow, Inc. (a)	14,455	5,612,443
Synopsys, Inc. (a)	10,965	3,501,015
Take-Two Interactive Software, Inc. (a)	11,432	1,190,414
Tyler Technologies, Inc. (a)	3,003	968,197
		<u>212,738,811</u>
		<u>499,743,617</u>
Utilities — 3.2%		
Electric — 3.0%		
The AES Corp.	48,428	1,392,789
Alliant Energy Corp.	18,035	995,712
Ameren Corp.	18,612	1,654,979
American Electric Power Co., Inc.	36,842	3,498,148
CenterPoint Energy, Inc.	45,504	1,364,665
CMS Energy Corp.	20,729	1,312,768
Consolidated Edison, Inc.	25,461	2,426,688
Constellation Energy Corp.	23,387	2,016,193
Dominion Energy, Inc.	59,735	3,662,950
DTE Energy Co.	13,832	1,625,675
Duke Energy Corp.	55,341	5,699,570
Edison International	27,543	1,752,286
Entergy Corp.	14,659	1,649,138
Eversource Energy	16,675	1,049,358
Exelon Corp.	25,013	2,097,090
FirstEnergy Corp.	71,357	3,084,763
NextEra Energy, Inc.	39,076	1,638,847
NRG Energy, Inc.	142,576	11,919,354
PG&E Corp. (a)	16,466	523,948
Pinnacle West Capital Corp.	116,300	1,891,038
PPL Corp.	8,124	617,749
Public Service Enterprise Group, Inc.	53,210	1,554,796
Sempra Energy	35,534	2,177,168
The Southern Co.	22,456	3,470,350
WEC Energy Group, Inc.	78,284	5,590,260
Xcel Energy, Inc.	22,466	2,106,412
	39,326	<u>2,757,146</u>
		<u>69,529,840</u>
Gas — 0.1%		
Atmos Energy Corp.	10,040	1,125,183
NiSource, Inc.	28,803	789,778
		<u>1,914,961</u>
Water — 0.1%		
American Water Works Co., Inc.	12,943	<u>1,972,772</u>

MM S&P 500 Index Fund — Portfolio of Investments (Continued)

	<u>Number of Shares</u>	<u>Value</u>
		\$ 73,417,573
TOTAL COMMON STOCK (Cost \$1,408,679,391)		<u>2,305,897,257</u>
TOTAL EQUITIES (Cost \$1,408,679,391)		<u>2,305,897,257</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$1,408,679,391)		<u>2,305,897,257</u>
	<u>Principal Amount</u>	
SHORT-TERM INVESTMENTS — 0.9%		
Repurchase Agreement — 0.8% Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (b)	\$ 19,093,888	<u>19,093,888</u>
U.S. Treasury Bill — 0.1% U.S. Treasury Bill 4.618% 5/11/23 (c) (d)	3,365,000	<u>3,310,674</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$22,404,276)		<u>22,404,562</u>
TOTAL INVESTMENTS — 100.2% (Cost \$1,431,083,667) (d) (e)		<u>2,328,301,819</u>
Other Assets/(Liabilities) — (0.2)%		<u>(5,167,423)</u>
NET ASSETS — 100.0%		<u><u>\$ 2,323,134,396</u></u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Maturity value of \$19,096,603. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$19,475,767.

(c) The rate shown represents yield-to-maturity.

(d) All or a portion of this security is pledged/held as collateral for open derivatives.

(e) See Note 3 for aggregate cost for federal tax purposes.

Futures contracts

	<u>Expiration Date</u>	<u>Number of Contracts</u>	<u>Notional Amount</u>	<u>Value/ Net Unrealized Appreciation/ (Depreciation)</u>
Long				
S&P 500 E Mini Index	3/17/23	125	\$ 24,595,622	\$ (464,372)

MassMutual Equity Opportunities Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.9%		
COMMON STOCK — 97.0%		
Basic Materials — 7.2%		
Chemicals — 6.7%		
CF Industries Holdings, Inc.	53,700	\$ 4,575,240
Ecolab, Inc.	117,440	17,094,567
Linde PLC	61,617	20,098,233
		<u>41,768,040</u>
Forest Products & Paper — 0.5%		
International Paper Co.	97,600	3,379,888
		<u>45,147,928</u>
Communications — 1.5%		
Media — 1.5%		
Comcast Corp. Class A	70,700	2,472,379
News Corp. Class A	234,500	4,267,900
The Walt Disney Co. (a)	33,700	2,927,856
		<u>9,668,135</u>
		<u>9,668,135</u>
Consumer, Cyclical — 11.6%		
Apparel — 4.0%		
NIKE, Inc. Class B	216,220	25,299,902
Lodging — 0.5%		
Las Vegas Sands Corp. (a)	62,400	2,999,568
Retail — 7.1%		
McDonald's Corp.	65,434	17,243,822
The TJX Cos., Inc.	347,393	27,652,483
		<u>44,896,305</u>
		<u>73,195,775</u>
Consumer, Non-cyclical — 32.7%		
Agriculture — 0.6%		
Philip Morris International, Inc.	36,500	3,694,165
Beverages — 4.8%		
The Coca-Cola Co.	142,970	9,094,322
PepsiCo, Inc.	116,171	20,987,453
		<u>30,081,775</u>

MassMutual Equity Opportunities Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Cosmetics & Personal Care — 6.2%		
Colgate-Palmolive Co.	252,480	\$ 19,892,899
The Procter & Gamble Co.	124,457	18,862,703
		<u>38,755,602</u>
Food — 0.9%		
Conagra Brands, Inc.	99,700	3,858,390
Tyson Foods, Inc. Class A	33,900	2,110,275
		<u>5,968,665</u>
Health Care – Products — 9.8%		
Baxter International, Inc.	171,422	8,737,379
Danaher Corp.	74,980	19,901,192
Medtronic PLC	144,997	11,269,167
Stryker Corp.	77,839	19,030,857
Zimmer Biomet Holdings, Inc.	20,300	2,588,250
		<u>61,526,845</u>
Health Care – Services — 4.9%		
Elevance Health, Inc.	14,360	7,366,249
UnitedHealth Group, Inc.	43,611	23,121,680
		<u>30,487,929</u>
Household Products & Wares — 0.6%		
Kimberly-Clark Corp.	28,800	3,909,600
Pharmaceuticals — 4.9%		
AbbVie, Inc.	18,400	2,973,624
Becton Dickinson and Co.	21,700	5,518,310
Johnson & Johnson	107,870	19,055,235
Sanofi ADR	72,600	3,516,018
		<u>31,063,187</u>
		<u>205,487,768</u>
Energy — 2.3%		
Oil & Gas — 2.0%		
EOG Resources, Inc.	17,800	2,305,456
TotalEnergies SE	132,000	8,238,800
TotalEnergies SE Sponsored ADR	37,900	2,352,832
		<u>12,897,088</u>
Pipelines — 0.3%		
TC Energy Corp.	42,200	1,682,092
		<u>14,579,180</u>
Financial — 19.9%		
Banks — 2.9%		
Fifth Third Bancorp	102,500	3,363,025
The Goldman Sachs Group, Inc.	6,400	2,197,632
Huntington Bancshares, Inc.	286,700	4,042,470

MassMutual Equity Opportunities Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Wells Fargo & Co.	208,000	\$ 8,588,320
		<u>18,191,447</u>
Diversified Financial Services — 5.5%		
American Express Co.	92,687	13,694,504
Visa, Inc. Class A	101,110	21,006,614
		<u>34,701,118</u>
Insurance — 8.8%		
American International Group, Inc.	84,300	5,331,132
Chubb Ltd.	121,797	26,868,418
Equitable Holdings, Inc.	120,200	3,449,740
Marsh & McLennan Cos., Inc.	120,865	20,000,740
		<u>55,650,030</u>
Real Estate Investment Trusts (REITS) — 2.7%		
American Tower Corp.	44,782	9,487,515
Equity Residential	62,200	3,669,800
Weyerhaeuser Co.	114,400	3,546,400
		<u>16,703,715</u>
		<u>125,246,310</u>
Industrial — 13.1%		
Aerospace & Defense — 4.8%		
The Boeing Co. (a)	10,200	1,942,998
L3 Harris Technologies, Inc.	22,700	4,726,367
Lockheed Martin Corp.	10,474	5,095,496
Northrop Grumman Corp.	33,236	18,133,894
		<u>29,898,755</u>
Electronics — 3.8%		
Honeywell International, Inc.	110,225	23,621,218
Hand & Machine Tools — 0.3%		
Stanley Black & Decker, Inc.	29,000	2,178,480
Miscellaneous - Manufacturing — 1.4%		
General Electric Co.	106,800	8,948,772
Transportation — 2.8%		
Union Pacific Corp.	59,046	12,226,655
United Parcel Service, Inc. Class B	29,900	5,197,816
		<u>17,424,471</u>
		<u>82,071,696</u>
Technology — 6.2%		
Computers — 2.3%		
Accenture PLC Class A	54,564	14,559,858
Semiconductors — 0.9%		
QUALCOMM, Inc.	52,800	5,804,832

MassMutual Equity Opportunities Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Software — 3.0%		
Microsoft Corp.	77,106	\$ 18,491,561
		<u>38,856,251</u>
Utilities — 2.5%		
Electric — 2.5%		
Dominion Energy, Inc.	42,800	2,624,497
Sempra Energy	40,600	6,274,324
The Southern Co.	95,600	6,826,795
		<u>15,725,616</u>
TOTAL COMMON STOCK (Cost \$519,970,216)		<u>609,978,659</u>
PREFERRED STOCK — 0.9%		
Consumer, Cyclical — 0.8%		
Auto Manufacturers — 0.8%		
Dr Ing hc F Porsche AG (a)	21,900	2,221,892
Volkswagen AG 6.014%	19,400	2,417,992
		<u>4,639,884</u>
Consumer, Non-cyclical — 0.1%		
Pharmaceuticals — 0.1%		
Becton Dickinson and Co. Convertible 6.000%	14,700	736,176
		<u>736,176</u>
TOTAL PREFERRED STOCK (Cost \$6,751,096)		<u>5,376,060</u>
TOTAL EQUITIES (Cost \$526,721,312)		<u>615,354,719</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$526,721,312)		<u>615,354,719</u>
SHORT-TERM INVESTMENTS — 2.4%		
Mutual Fund — 0.0%		
T. Rowe Price Government Reserve Investment Fund	159	159
		<u>159</u>
	Principal Amount	
Repurchase Agreement — 2.4%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (b)	\$ 14,949,988	14,949,988
		<u>14,949,988</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$14,950,147)		<u>14,950,147</u>

MassMutual Equity Opportunities Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL INVESTMENTS — 100.3% (Cost \$541,671,459) (c)		\$ 630,304,866
Other Assets/(Liabilities) — (0.3)%		<u>(1,796,594)</u>
NET ASSETS — 100.0%		<u>\$ 628,508,272</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Maturity value of \$14,952,114. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 06/29/23, and an aggregate market value, including accrued interest, of \$15,249,088.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Fundamental Growth Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 98.0%		
COMMON STOCK — 98.0%		
Basic Materials — 0.8%		
Chemicals — 0.8%		
Celanese Corp.	2,090	\$ 213,682
Communications — 9.0%		
Internet — 8.2%		
CDW Corp.	3,869	690,926
Etsy, Inc. (a)	6,278	751,979
Match Group, Inc. (a)	6,460	268,025
Palo Alto Networks, Inc. (a)	4,002	558,439
		<u>2,269,369</u>
Telecommunications — 0.8%		
Nice Ltd. Sponsored ADR (a) (b)	1,090	209,607
		<u>2,478,976</u>
Consumer, Cyclical — 16.9%		
Apparel — 1.0%		
Tapestry, Inc.	7,220	274,938
Auto Parts & Equipment — 0.7%		
Aptiv PLC (a)	2,150	200,229
Distribution & Wholesale — 2.4%		
Copart, Inc. (a)	3,940	239,907
WESCO International, Inc. (a)	3,310	414,412
		<u>654,319</u>
Entertainment — 1.6%		
Live Nation Entertainment, Inc. (a)	2,520	175,745
Vail Resorts, Inc.	1,130	269,335
		<u>445,080</u>
Lodging — 3.3%		
Hilton Worldwide Holdings, Inc.	7,200	909,792
Retail — 7.9%		
Chipotle Mexican Grill, Inc. (a)	246	341,322
Freshpet, Inc. (a) (b)	9,132	481,896
Lululemon Athletica, Inc. (a)	2,889	925,578

MassMutual Fundamental Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Wingstop, Inc.	3,220	\$ 443,136
		2,191,932
		4,676,290
Consumer, Non-cyclical — 25.4%		
Biotechnology — 3.4%		
Illumina, Inc. (a)	1,259	254,570
Sarepta Therapeutics, Inc. (a)	1,530	198,258
Seagen, Inc. (a)	3,732	479,599
		932,427
Commercial Services — 8.2%		
CoStar Group, Inc. (a)	2,950	227,976
FTI Consulting, Inc. (a)	860	136,568
Gartner, Inc. (a)	2,786	936,486
Global Payments, Inc.	2,330	231,416
Shift4 Payments, Inc. Class A (a)	6,823	381,610
TransUnion	6,507	369,272
		2,283,328
Health Care – Products — 6.0%		
Align Technology, Inc. (a)	1,628	343,345
Avantor, Inc. (a)	10,130	213,642
The Cooper Cos., Inc.	770	254,616
IDEXX Laboratories, Inc. (a)	783	319,433
Insulet Corp. (a)	760	223,736
Omnicell, Inc. (a)	6,132	309,175
		1,663,947
Health Care – Services — 4.7%		
ICON PLC (a)	5,462	1,060,993
Quest Diagnostics, Inc.	1,570	245,611
		1,306,604
Pharmaceuticals — 3.1%		
Ascendis Pharma A/S ADR (a)	3,440	420,127
DexCom, Inc. (a)	3,780	428,048
		848,175
		7,034,481
Energy — 2.6%		
Oil & Gas — 1.5%		
Devon Energy Corp.	6,660	409,656
Pipelines — 1.1%		
Cheniere Energy, Inc.	2,132	319,715
		729,371

MassMutual Fundamental Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Financial — 8.6%		
Banks — 0.6%		
First Republic Bank	1,420	\$ 173,084
Diversified Financial Services — 3.0%		
Hamilton Lane, Inc. Class A	9,500	606,860
LPL Financial Holdings, Inc.	1,020	220,494
		827,354
Insurance — 1.8%		
The Allstate Corp.	1,540	208,824
Arthur J Gallagher & Co.	1,480	279,039
		487,863
Private Equity — 1.6%		
Ares Management Corp. Class A	6,652	455,263
Real Estate Investment Trusts (REITS) — 1.6%		
Essex Property Trust, Inc.	1,210	256,423
Sun Communities, Inc.	1,280	183,040
		439,463
		2,383,027
Industrial — 14.9%		
Aerospace & Defense — 3.1%		
Hexcel Corp.	8,479	498,989
TransDigm Group, Inc.	572	360,160
		859,149
Building Materials — 0.9%		
Vulcan Materials Co.	1,410	246,905
Electrical Components & Equipment — 1.0%		
AMETEK, Inc.	2,090	292,015
Electronics — 3.7%		
Agilent Technologies, Inc.	6,769	1,012,981
Environmental Controls — 0.8%		
Waste Connections, Inc.	1,690	224,026
Machinery – Construction & Mining — 2.4%		
BWX Technologies, Inc.	11,257	653,806
Machinery – Diversified — 2.2%		
IDEX Corp.	1,170	267,146
Rockwell Automation, Inc.	1,375	354,159
		621,305
Miscellaneous - Manufacturing — 0.8%		
Teledyne Technologies, Inc. (a)	525	209,953
		4,120,140

MassMutual Fundamental Growth Fund — Portfolio of Investments (Continued)

	<u>Number of Shares</u>	<u>Value</u>
Technology — 19.8%		
Computers — 3.2%		
Fortinet, Inc. (a)	6,680	\$ 326,585
Genpact Ltd.	4,620	213,998
NetApp, Inc.	3,910	234,835
Zscaler, Inc. (a)	1,130	126,447
		<u>901,865</u>
Semiconductors — 4.9%		
KLA Corp.	651	245,446
Marvell Technology, Inc.	6,050	224,092
Microchip Technology, Inc.	3,920	275,380
ON Semiconductor Corp. (a)	5,394	336,424
Synaptics, Inc. (a)	2,962	281,864
		<u>1,363,206</u>
Software — 11.7%		
Ceridian HCM Holding, Inc. (a)	14,129	906,376
Electronic Arts, Inc.	4,968	606,990
HubSpot, Inc. (a)	924	267,156
Lightspeed Commerce, Inc. (a) (b)	7,230	103,389
MongoDB, Inc. (a)	2,899	570,639
MSCI, Inc.	635	295,383
ZoomInfo Technologies, Inc. (a)	16,022	482,423
		<u>3,232,356</u>
		<u>5,497,427</u>
TOTAL COMMON STOCK		
(Cost \$29,685,452)		<u>27,133,394</u>
TOTAL EQUITIES		
(Cost \$29,685,452)		<u>27,133,394</u>
MUTUAL FUNDS — 0.4%		
Diversified Financial Services — 0.4%		
State Street Navigator Securities Lending Government Money Market Portfolio (c)	105,566	105,566
TOTAL MUTUAL FUNDS		
(Cost \$105,566)		<u>105,566</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$29,791,018)		<u>27,238,960</u>
	<u>Principal Amount</u>	
SHORT-TERM INVESTMENTS — 2.0%		
Repurchase Agreement — 2.0%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 559,039	<u>\$ 559,039</u>

MassMutual Fundamental Growth Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$559,039)		<u>\$ 559,039</u>
TOTAL INVESTMENTS — 100.4% (Cost \$30,350,057) (e)		27,797,999
Other Assets/(Liabilities) — (0.4)%		<u>(103,812)</u>
NET ASSETS — 100.0%		<u>\$ 27,694,187</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$593,574 or 2.14% of net assets. The Fund received \$503,552 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).

(c) Represents investment of security lending cash collateral. (Note 2).

(d) Maturity value of \$559,119. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$570,325.

(e) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Blue Chip Growth Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 99.7%		
COMMON STOCK — 99.6%		
Basic Materials — 0.7%		
Chemicals — 0.7%		
Linde PLC	24,792	\$ 8,086,655
The Sherwin-Williams Co.	32,513	7,716,310
		<u>15,802,965</u>
		<u>15,802,965</u>
Communications — 23.8%		
Internet — 20.8%		
Alibaba Group Holding Ltd. Sponsored ADR (a)	173,994	15,327,132
Alphabet, Inc. Class A (a)	628,888	55,486,788
Alphabet, Inc. Class C (a)	1,206,880	107,086,462
Amazon.com, Inc. (a)	1,567,961	131,708,724
Booking Holdings, Inc. (a)	4,910	9,895,025
DoorDash, Inc., Class A (a)	51,007	2,490,162
Meta Platforms, Inc. Class A (a)	628,591	75,644,641
Netflix, Inc. (a)	195,488	57,645,502
Sea Ltd. ADR (a)	109,236	5,683,549
Shopify, Inc. Class A (a)	599,044	20,792,817
Tencent Holdings Ltd.	130,200	5,533,787
		<u>487,294,589</u>
Media — 2.4%		
FactSet Research Systems, Inc.	55,350	22,206,973
The Walt Disney Co. (a)	409,002	35,534,094
		<u>57,741,067</u>
Telecommunications — 0.6%		
T-Mobile US, Inc. (a)	95,525	13,373,500
		<u>558,409,156</u>
Consumer, Cyclical — 7.3%		
Apparel — 0.5%		
NIKE, Inc. Class B	104,353	12,210,344
Auto Manufacturers — 1.9%		
Tesla, Inc. (a)	368,704	45,416,959
Retail — 4.9%		
Chipotle Mexican Grill, Inc. (a)	8,914	12,368,086
Dollar General Corp.	61,860	15,233,025
Lululemon Athletica, Inc. (a)	29,277	9,379,765
Ross Stores, Inc.	146,009	16,947,265

MassMutual Blue Chip Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Starbucks Corp.	296,543	\$ 29,417,065
The TJX Cos., Inc.	36,158	2,878,177
Yum China Holdings, Inc.	170,821	9,335,368
Yum! Brands, Inc.	145,380	18,620,270
		114,179,021
		171,806,324
Consumer, Non-cyclical — 20.7%		
Beverages — 1.9%		
Monster Beverage Corp. (a)	437,861	44,456,027
Biotechnology — 3.7%		
Illumina, Inc. (a)	100,578	20,336,872
Regeneron Pharmaceuticals, Inc. (a)	41,446	29,902,874
Vertex Pharmaceuticals, Inc. (a)	121,756	35,160,698
		85,400,444
Commercial Services — 2.4%		
Adyen NV Sponsored ADR (a)	251,418	3,469,568
Affirm Holdings, Inc. (a) (b)	71,534	691,734
Ant International Co. Ltd., Class C (Acquired 6/07/18, Cost \$3,358,253) (a) (c) (d) (e)	881,113	1,788,659
Block, Inc. (a)	296,009	18,601,206
Cintas Corp.	6,206	2,802,754
PayPal Holdings, Inc. (a)	258,887	18,437,932
S&P Global, Inc.	27,555	9,229,272
TransUnion	29,591	1,679,289
		56,700,414
Health Care – Products — 3.9%		
Align Technology, Inc. (a)	6,965	1,468,919
Danaher Corp.	80,091	21,257,753
Intuitive Surgical, Inc. (a)	152,332	40,421,296
Stryker Corp.	43,409	10,613,066
Teleflex, Inc.	10,011	2,499,046
Thermo Fisher Scientific, Inc.	26,068	14,355,387
		90,615,467
Health Care – Services — 3.7%		
Elevance Health, Inc.	16,486	8,456,823
Humana, Inc.	27,815	14,246,565
UnitedHealth Group, Inc.	121,943	64,651,740
		87,355,128
Pharmaceuticals — 5.1%		
AstraZeneca PLC Sponsored ADR	78,129	5,297,146
Eli Lilly & Co.	86,063	31,485,288
Novartis AG Sponsored ADR (b)	341,449	30,976,254
Novo Nordisk A/S Sponsored ADR	157,903	21,370,592
Roche Holding AG Sponsored ADR	574,688	22,499,035

MassMutual Blue Chip Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Zoetis, Inc.	55,869	\$ 8,187,602
		119,815,917
		484,343,397
Financial — 10.0%		
Banks — 0.7%		
The Goldman Sachs Group, Inc.	47,921	16,455,113
Diversified Financial Services — 8.2%		
The Charles Schwab Corp.	147,065	12,244,632
Mastercard, Inc. Class A	115,200	40,058,496
SEI Investments Co.	315,298	18,381,873
Visa, Inc. Class A (b)	584,355	121,405,595
		192,090,596
Insurance — 1.1%		
Chubb Ltd.	67,862	14,970,357
Marsh & McLennan Cos., Inc.	58,356	9,656,751
		24,627,108
		233,172,817
Industrial — 4.9%		
Aerospace & Defense — 3.0%		
The Boeing Co. (a)	363,984	69,335,312
Electronics — 0.1%		
TE Connectivity Ltd.	24,863	2,854,272
Machinery - Diversified — 0.5%		
Deere & Co.	26,014	11,153,763
Miscellaneous - Manufacturing — 0.2%		
General Electric Co.	60,048	5,031,422
Transportation — 1.1%		
Expeditors International of Washington, Inc.	210,069	21,830,371
Old Dominion Freight Line, Inc.	18,039	5,119,107
		26,949,478
		115,324,247
Technology — 32.2%		
Computers — 5.4%		
Apple, Inc.	951,089	123,574,994
Crowdstrike Holdings, Inc. Class A (a)	16,538	1,741,286
Fortinet, Inc. (a)	27,321	1,335,724
		126,652,004
Semiconductors — 7.0%		
Advanced Micro Devices, Inc. (a)	175,682	11,378,923
ASML Holding NV	33,389	18,243,750
Lam Research Corp.	4,875	2,048,963

MassMutual Blue Chip Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Marvell Technology, Inc.	116,699	\$ 4,322,531
Monolithic Power Systems, Inc.	19,966	7,060,177
NVIDIA Corp.	586,910	85,771,027
QUALCOMM, Inc.	203,352	22,356,519
Taiwan Semiconductor Manufacturing Co. Ltd. Sponsored ADR	57,974	4,318,483
Texas Instruments, Inc.	54,894	9,069,587
		<u>164,569,960</u>
Software — 19.8%		
Atlassian Corp. (a)	39,645	5,101,519
Autodesk, Inc. (a)	211,854	39,589,157
Bill.com Holdings, Inc. (a)	47,175	5,140,188
Canva, Inc. (Acquired 8/16/21-12/17/21, Cost \$2,302,739) (a) (c) (d) (e)	1,351	745,482
Confluent, Inc. Class A (a)	67,084	1,491,948
Datadog, Inc. Class A (a)	33,508	2,462,838
Gusto, Inc. (Acquired 10/04/21, Cost \$765,943) (a) (c) (d) (e)	26,606	500,991
Intuit, Inc.	56,229	21,885,451
Microsoft Corp.	922,085	221,134,425
MongoDB, Inc. (a)	29,263	5,760,129
MSCI, Inc.	4,852	2,257,005
Oracle Corp.	636,945	52,063,884
Paycom Software, Inc. (a)	5,100	1,582,581
Roper Technologies, Inc.	25,590	11,057,183
Salesforce, Inc. (a)	212,695	28,201,230
ServiceNow, Inc. (a)	76,836	29,833,114
Snowflake, Inc. Class A (a)	20,161	2,893,910
Synopsys, Inc. (a)	48,201	15,390,097
Veeva Systems, Inc. Class A (a)	21,680	3,498,718
Workday, Inc. Class A (a)	74,125	12,403,336
		<u>462,993,186</u>
		<u>754,215,150</u>
TOTAL COMMON STOCK		
(Cost \$1,933,289,255)		<u>2,333,074,056</u>
PREFERRED STOCK — 0.1%		
Technology — 0.1%		
Software — 0.1%		
Canva, Inc., Series A (Acquired 11/04/21-12/17/2021, Cost \$144,893) (a) (c) (d) (e)	85	46,903
Canva, Inc., Series A-3 (Acquired 11/04/21-12/17/2021, Cost \$17,043) (a) (c) (d) (e)	10	5,518
Databricks, Inc., Series G (Acquired 2/01/21, Cost \$815,183) (a) (c) (d) (e)	13,788	827,280
Databricks, Inc., Series H (Acquired 8/31/21, Cost \$2,202,319) (a) (c) (d) (e)	29,970	1,798,200
Gusto, Inc., Series E (Acquired 7/13/21, Cost \$1,117,484) (a) (c) (d) (e)	36,765	692,285
		<u>3,370,186</u>
TOTAL PREFERRED STOCK		
(Cost \$4,296,922)		<u>3,370,186</u>
TOTAL EQUITIES		
(Cost \$1,937,586,177)		<u>2,336,444,242</u>

MassMutual Blue Chip Growth Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
BONDS & NOTES — 0.1%		
CORPORATE DEBT — 0.1%		
Retail — 0.1%		
Carvana Co. (f)	\$ 3,685,000	\$ <u>1,731,520</u>
TOTAL CORPORATE DEBT (Cost \$3,685,000)		<u>1,731,520</u>
TOTAL BONDS & NOTES (Cost \$3,685,000)		<u>1,731,520</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$1,941,271,177)		<u>2,338,175,762</u>
	<u>Number of Shares</u>	
SHORT-TERM INVESTMENTS — 1.0%		
Mutual Fund — 0.0%		
T. Rowe Price Government Reserve Investment Fund	102	<u>102</u>
	<u>Principal Amount</u>	
Repurchase Agreement — 1.0%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (g)	\$ 22,109,521	<u>22,109,521</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$22,109,623)		<u>22,109,623</u>
TOTAL INVESTMENTS — 100.8% (Cost \$1,963,380,800) (h)		<u>2,360,285,385</u>
Other Assets/(Liabilities) — (0.8)%		<u>(18,495,897)</u>
NET ASSETS — 100.0%		<u>\$ 2,341,789,488</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Non-income producing security.
- (b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$6,027,526 or 0.26% of net assets. The Fund received \$6,161,668 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).
- (c) Investment is valued using significant unobservable inputs.
- (d) Restricted security. Certain securities are restricted as to resale. At December 31, 2022, these securities amounted to a value of \$6,405,318 or 0.27% of net assets. The Fund generally bears the costs, if any, associated with the disposition of restricted securities.
- (e) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$6,405,318 or 0.27% of net assets.
- (f) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are

considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$1,731,520 or 0.07% of net assets.

- (g) Maturity value of \$22,112,665. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$22,551,829.
- (h) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Growth Opportunities Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.4%		
COMMON STOCK — 97.4%		
Communications — 20.2%		
Internet — 19.5%		
Airbnb, Inc. Class A (a)	37,966	\$ 3,246,093
Amazon.com, Inc. (a)	184,821	15,524,964
DoorDash, Inc., Class A (a)	47,953	2,341,066
Match Group, Inc. (a)	113,293	4,700,527
Netflix, Inc. (a)	18,572	5,476,511
Sea Ltd. ADR (a)	40,613	2,113,094
Shopify, Inc. Class A (a)	126,013	4,373,911
Uber Technologies, Inc. (a)	329,712	8,153,778
		<u>45,929,944</u>
Media — 0.7%		
Charter Communications, Inc. Class A (a)	4,926	1,670,406
		<u>47,600,350</u>
Consumer, Cyclical — 5.7%		
Apparel — 2.1%		
NIKE, Inc. Class B	42,885	5,017,974
Distribution & Wholesale — 0.8%		
Copart, Inc. (a)	31,398	1,911,824
Entertainment — 1.6%		
Warner Music Group Corp. Class A	110,511	3,870,095
Retail — 1.2%		
Floor & Decor Holdings, Inc. Class A (a)	39,353	2,740,150
		<u>13,540,043</u>
Consumer, Non-cyclical — 21.2%		
Biotechnology — 1.2%		
Sarepta Therapeutics, Inc. (a)	22,176	2,873,566
Commercial Services — 6.8%		
Block, Inc. (a)	96,297	6,051,304
CoStar Group, Inc. (a)	79,740	6,162,307
S&P Global, Inc.	11,129	3,727,547
		<u>15,941,158</u>
Health Care – Products — 9.2%		
10X Genomics, Inc. Class A (a)	34,306	1,250,111
Align Technology, Inc. (a)	23,502	4,956,572
Danaher Corp.	14,079	3,736,848

MassMutual Growth Opportunities Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Edwards Lifesciences Corp. (a)	93,219	\$ 6,955,069
Intuitive Surgical, Inc. (a)	17,769	4,715,004
		<u>21,613,604</u>
Pharmaceuticals — 4.0%		
DexCom, Inc. (a)	83,453	9,450,218
		<u>49,878,546</u>
Financial — 15.7%		
Diversified Financial Services — 14.4%		
CME Group, Inc.	28,812	4,845,026
Mastercard, Inc. Class A	27,921	9,708,970
Visa, Inc. Class A	93,920	19,512,819
		<u>34,066,815</u>
Private Equity — 1.3%		
KKR & Co., Inc.	65,607	3,045,477
		<u>37,112,292</u>
Industrial — 6.8%		
Aerospace & Defense — 2.5%		
The Boeing Co. (a)	31,286	5,959,670
Environmental Controls — 1.9%		
Waste Management, Inc.	28,444	4,462,295
Transportation — 2.4%		
Canadian Pacific Railway Ltd. (b)	74,454	5,553,524
		<u>15,975,489</u>
Technology — 27.8%		
Semiconductors — 4.8%		
Advanced Micro Devices, Inc. (a)	41,134	2,664,249
Lam Research Corp.	8,366	3,516,230
NVIDIA Corp.	34,819	5,088,449
		<u>11,268,928</u>
Software — 23.0%		
Atlassian Corp. (a)	29,815	3,836,594
Cloudflare, Inc. Class A (a)	68,127	3,080,022
Coupa Software, Inc. (a)	31,461	2,490,767
Datadog, Inc. Class A (a)	64,739	4,758,316
Intuit, Inc.	12,398	4,825,550
Microsoft Corp.	58,729	14,084,389
ServiceNow, Inc. (a)	33,931	13,174,389
Snowflake, Inc. Class A (a)	24,907	3,575,151

MassMutual Growth Opportunities Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Veeva Systems, Inc. Class A (a)	26,535	\$ 4,282,218
		54,107,396
		65,376,324
TOTAL COMMON STOCK (Cost \$258,375,726)		229,483,044
TOTAL EQUITIES (Cost \$258,375,726)		229,483,044
MUTUAL FUNDS — 2.4% Diversified Financial Services — 2.4%		
State Street Navigator Securities Lending Government Money Market Portfolio (c)	5,620,311	5,620,311
TOTAL MUTUAL FUNDS (Cost \$5,620,311)		5,620,311
TOTAL LONG-TERM INVESTMENTS (Cost \$263,996,037)		235,103,355
	Principal Amount	
SHORT-TERM INVESTMENTS — 2.7% Repurchase Agreement — 2.7%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 6,321,528	\$ 6,321,528
TOTAL SHORT-TERM INVESTMENTS (Cost \$6,321,528)		6,321,528
TOTAL INVESTMENTS — 102.5% (Cost \$270,317,565) (e)		241,424,883
Other Assets/(Liabilities) — (2.5)%		(5,992,985)
NET ASSETS — 100.0%		\$ 235,431,898

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$5,497,954 or 2.34% of net assets. (Note 2).

(c) Represents investment of security lending cash collateral. (Note 2).

(d) Maturity value of \$6,322,427. Collateralized by U.S. Government Agency obligations with rates ranging from 0.000% - 3.000%, maturity dates ranging from 6/29/23 - 6/30/24, and an aggregate market value, including accrued interest, of \$6,448,078.

(e) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Mid Cap Value Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.1%		
COMMON STOCK — 96.7%		
Basic Materials — 3.4%		
Chemicals — 2.6%		
Akzo Nobel NV	6,193	\$ 413,234
Axalta Coating Systems Ltd. (a)	14,214	362,031
CF Industries Holdings, Inc.	151	12,865
Huntsman Corp.	1,047	28,772
LyondellBasell Industries NV Class A	7,600	631,028
The Mosaic Co.	9,300	407,991
Olin Corp.	18,663	988,019
		<u>2,843,940</u>
Forest Products & Paper — 0.0%		
Mondi PLC	2,711	46,042
Iron & Steel — 0.8%		
Cleveland-Cliffs, Inc. (a)	16,900	272,259
United States Steel Corp.	22,104	553,705
		<u>825,964</u>
		<u>3,715,946</u>
Communications — 8.3%		
Advertising — 0.3%		
Omnicom Group, Inc.	4,045	329,951
Internet — 1.9%		
eBay, Inc.	12,462	516,799
F5, Inc. (a)	3,017	432,970
GoDaddy, Inc. Class A (a)	7,165	536,085
IAC, Inc. (a)	13,700	608,280
		<u>2,094,134</u>
Media — 5.1%		
Altice USA, Inc. Class A (a)	50,800	233,680
DISH Network Corp. Class A (a)	39,100	548,964
Fox Corp. Class A	33,835	1,027,569
Fox Corp. Class B	15,542	442,170
Liberty Broadband Corp. Class C (a)	13,100	999,137
Liberty Global PLC Class A (a)	35,600	673,908
Liberty Media Corp-Liberty SiriusXM Class C (a)	20,100	786,513
News Corp. Class A	26,300	478,660
Warner Bros Discovery, Inc. (a)	52,427	497,008
		<u>5,687,609</u>

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Telecommunications — 1.0%		
Corning, Inc.	23,405	\$ 747,556
Juniper Networks, Inc.	10,016	320,111
		<u>1,067,667</u>
		<u>9,179,361</u>
Consumer, Cyclical — 8.7%		
Airlines — 1.6%		
Alaska Air Group, Inc. (a)	672	28,856
Southwest Airlines Co. (a)	35,801	1,205,419
United Airlines Holdings, Inc. (a)	14,110	531,947
		<u>1,766,222</u>
Apparel — 0.5%		
Tapestry, Inc.	13,342	508,063
Auto Manufacturers — 0.2%		
Cummins, Inc.	913	221,211
Auto Parts & Equipment — 0.9%		
Aptiv PLC (a)	1,800	167,634
BorgWarner, Inc.	14,828	596,827
Cie Generale des Etablissements Michelin SCA	7,877	219,035
		<u>983,496</u>
Distribution & Wholesale — 0.7%		
LKQ Corp.	14,400	769,104
Food Services — 0.3%		
Sodexo SA	3,810	364,475
Home Builders — 0.0%		
Thor Industries, Inc. (b)	283	21,364
Lodging — 0.1%		
Boyd Gaming Corp.	1,311	71,489
Retail — 4.4%		
Advance Auto Parts, Inc.	6,336	931,582
Bath & Body Works, Inc.	12,076	508,883
Beacon Roofing Supply, Inc. (a)	4,025	212,480
Best Buy Co., Inc.	6,517	522,728
Dollar Tree, Inc. (a)	8,895	1,258,109
Macy's, Inc.	14,624	301,986
MSC Industrial Direct Co., Inc. Class A	6,588	538,239
Ross Stores, Inc.	3,900	452,673
Williams-Sonoma, Inc.	1,003	115,265
		<u>4,841,945</u>
		<u>9,547,369</u>
Consumer, Non-cyclical — 18.8%		
Agriculture — 0.0%		
Archer-Daniels-Midland Co.	205	19,034

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Beverages — 0.6%		
Molson Coors Beverage Co. Class B	12,900	\$ 664,608
Biotechnology — 0.8%		
Bio-Rad Laboratories, Inc. Class A (a)	1,700	714,833
Incyte Corp. (a)	1,815	145,781
		<u>860,614</u>
Commercial Services — 1.4%		
FleetCor Technologies, Inc. (a)	4,400	808,192
Gartner, Inc. (a)	48	16,134
Global Payments, Inc.	7,000	695,240
ManpowerGroup, Inc.	275	22,883
		<u>1,542,449</u>
Cosmetics & Personal Care — 0.0%		
Coty, Inc. Class A (a)	1,719	14,714
Food — 3.9%		
Campbell Soup Co.	9,816	557,058
Conagra Brands, Inc.	18,657	722,026
The J.M. Smucker Co.	2,621	415,324
Kellogg Co.	602	42,887
Koninklijke Ahold Delhaize NV	25,352	728,461
The Kraft Heinz Co.	8,500	346,035
The Kroger Co.	14,673	654,122
Post Holdings, Inc. (a)	9,100	821,366
		<u>4,287,279</u>
Health Care – Products — 3.4%		
Baxter International, Inc.	3,825	194,960
Dentsply Sirona, Inc.	8,329	265,196
Envista Holdings Corp. (a)	5,472	184,242
Hologic, Inc. (a)	11,142	833,533
Koninklijke Philips NV	35,100	526,149
QIAGEN NV (a)	11,270	562,035
Zimmer Biomet Holdings, Inc.	9,344	1,191,360
		<u>3,757,475</u>
Health Care – Services — 4.1%		
Centene Corp. (a)	6,600	541,266
Encompass Health Corp.	532	31,819
HCA Healthcare, Inc.	450	107,982
IQVIA Holdings, Inc. (a)	78	15,981
Laboratory Corp. of America Holdings	7,709	1,815,315
Molina Healthcare, Inc. (a)	911	300,831
Quest Diagnostics, Inc.	7,268	1,137,006
Universal Health Services, Inc. Class B	4,230	595,965
		<u>4,546,165</u>
Household Products & Wares — 0.5%		
Kimberly-Clark Corp.	4,272	579,924
Pharmaceuticals — 4.1%		
AmerisourceBergen Corp.	7,519	1,245,973

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Becton Dickinson and Co.	667	\$ 169,618
Cardinal Health, Inc.	10,123	778,155
Embecka Corp.	10,861	274,675
Henry Schein, Inc. (a)	7,955	635,366
Jazz Pharmaceuticals PLC (a)	1,966	313,203
Organon & Co.	6,700	187,131
Perrigo Co. PLC	25,700	876,113
Premier, Inc. Class A	625	21,863
		<u>4,502,097</u>
		<u>20,774,359</u>
Energy — 5.5%		
Oil & Gas — 3.4%		
APA Corp.	14,340	669,391
Chesapeake Energy Corp.	5,600	528,472
Devon Energy Corp.	3,710	228,202
Diamondback Energy, Inc.	4,352	595,267
EQT Corp.	13,884	469,696
HF Sinclair Corp.	7,373	382,585
Marathon Oil Corp.	24,403	660,589
Phillips 66	1,424	148,210
Range Resources Corp.	2,320	58,046
		<u>3,740,458</u>
Oil & Gas Services — 0.4%		
Baker Hughes Co.	13,005	384,038
Pipelines — 1.7%		
Enterprise Products Partners LP (c)	20,086	484,474
Kinder Morgan, Inc.	36,100	652,688
The Williams Cos., Inc.	23,700	779,730
		<u>1,916,892</u>
		<u>6,041,388</u>
Financial — 25.3%		
Banks — 7.9%		
The Bank of New York Mellon Corp.	37,017	1,685,014
Bank OZK	598	23,956
Comerica, Inc.	6,723	449,432
East West Bancorp, Inc.	7,513	495,107
First Citizens BancShares, Inc. Class A	994	753,810
First Hawaiian, Inc.	23,139	602,540
First Republic Bank	5,554	676,977
KeyCorp.	33,807	588,918
Northern Trust Corp.	12,130	1,073,384
Prosperity Bancshares, Inc.	7,014	509,777
Regions Financial Corp.	28,243	608,919
Truist Financial Corp.	15,359	660,898
US Bancorp	9,377	408,931
Westamerica Bancorp.	2,922	172,427
		<u>8,710,090</u>

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Diversified Financial Services — 2.2%		
Affiliated Managers Group, Inc.	1,872	\$ 296,581
Ally Financial, Inc.	22,850	558,683
Ameriprise Financial, Inc.	2,378	740,438
Stifel Financial Corp.	3,858	225,191
T. Rowe Price Group, Inc.	5,239	571,365
		<u>2,392,258</u>
Insurance — 7.3%		
Aflac, Inc.	3,646	262,293
The Allstate Corp.	11,482	1,556,959
American Financial Group, Inc.	3,254	446,709
Arch Capital Group Ltd. (a)	10,700	671,746
Axis Capital Holdings Ltd.	409	22,156
Chubb Ltd.	487	107,432
Equitable Holdings, Inc.	1,120	32,144
Fidelity National Financial, Inc.	19,962	750,970
The Hanover Insurance Group, Inc.	2,471	333,906
The Hartford Financial Services Group, Inc.	8,885	673,750
Loews Corp.	5,400	314,982
Markel Corp. (a)	500	658,745
Old Republic International Corp.	18,000	434,700
Reinsurance Group of America, Inc.	6,684	949,730
Voya Financial, Inc.	516	31,729
Willis Towers Watson PLC	3,487	852,850
		<u>8,100,801</u>
Private Equity — 0.3%		
The Carlyle Group, Inc.	11,190	<u>333,910</u>
Real Estate — 0.6%		
CBRE Group, Inc. Class A (a)	7,972	<u>613,525</u>
Real Estate Investment Trusts (REITS) — 6.9%		
Annaly Capital Management, Inc.	23,150	488,002
AvalonBay Communities, Inc.	3,652	589,871
Camden Property Trust	4,793	536,241
Equinix, Inc.	716	469,002
Equity Residential	9,802	578,318
Essex Property Trust, Inc.	1,965	416,423
First Industrial Realty Trust, Inc.	694	33,492
Gaming and Leisure Properties, Inc.	8,500	442,765
Healthpeak Properties, Inc.	22,692	568,888
JBG SMITH Properties	28,743	545,542
Mid-America Apartment Communities, Inc.	3,655	573,798
Prologis, Inc.	138	15,557
Public Storage	1,189	333,146
Realty Income Corp.	8,573	543,785
Regency Centers Corp.	16,346	1,021,625
VICI Properties, Inc.	3,457	112,007
Weyerhaeuser Co.	3,507	108,717
WP Carey, Inc.	2,786	217,726
		<u>7,594,905</u>
Savings & Loans — 0.1%		
Capitol Federal Financial, Inc.	17,778	<u>153,780</u>

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	<u>Number of Shares</u>	<u>Value</u>
		\$ 27,899,269
Industrial — 12.8%		
Building Materials — 1.7%		
Builders FirstSource, Inc. (a)	4,500	\$ 291,960
Cie de Saint-Gobain	8,235	404,287
Louisiana-Pacific Corp.	7,263	429,970
Masco Corp.	9,409	439,118
Owens Corning	3,507	299,147
		<u>1,864,482</u>
Electrical Components & Equipment — 0.8%		
Emerson Electric Co.	5,915	568,195
Legrand SA	3,909	314,742
		<u>882,937</u>
Electronics — 2.4%		
Atkore, Inc. (a)	1,513	171,604
Flex Ltd. (a)	17,700	379,842
Hubbell, Inc.	2,297	539,060
nVent Electric PLC	17,547	675,033
TE Connectivity Ltd.	3,622	415,806
Vontier Corp.	24,002	463,959
		<u>2,645,304</u>
Engineering & Construction — 0.4%		
Vinci SA	4,164	415,880
Environmental Controls — 0.2%		
Republic Services, Inc.	1,346	173,620
Tetra Tech, Inc.	166	24,102
		<u>197,722</u>
Machinery – Construction & Mining — 0.8%		
Oshkosh Corp.	10,794	951,923
Machinery – Diversified — 0.5%		
CNH Industrial NV	19,000	305,140
IMI PLC	18,850	293,413
		<u>598,553</u>
Miscellaneous - Manufacturing — 0.9%		
A.O. Smith Corp.	6,160	352,598
Textron, Inc.	8,926	631,961
		<u>984,559</u>
Packaging & Containers — 2.4%		
Amcor PLC	30,628	364,780
Graphic Packaging Holding Co.	27,000	600,750
Packaging Corp. of America	4,848	620,108
Sealed Air Corp.	7,464	372,304
Sonoco Products Co.	3,578	217,220

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
WestRock Co.	13,281	\$ 466,960
		<u>2,642,122</u>
Shipbuilding — 1.2%		
Huntington Ingalls Industries, Inc.	5,604	<u>1,292,731</u>
Transportation — 1.5%		
Expeditors International of Washington, Inc.	5,800	602,736
FedEx Corp.	3,200	554,240
Heartland Express, Inc.	16,793	257,604
Kirby Corp. (a)	318	20,463
Knight-Swift Transportation Holdings, Inc.	819	42,924
Ryder System, Inc.	1,979	165,385
XPO, Inc. (a)	516	<u>17,178</u>
		<u>1,660,530</u>
		<u>14,136,743</u>
Technology — 3.6%		
Computers — 2.4%		
Amdocs Ltd.	4,715	428,593
DXC Technology Co. (a)	9,251	245,152
Hewlett Packard Enterprise Co.	37,815	603,527
HP, Inc.	30,886	829,907
Western Digital Corp. (a)	15,766	<u>497,417</u>
		<u>2,604,596</u>
Semiconductors — 0.4%		
Applied Materials, Inc.	1,803	175,576
Teradyne, Inc.	3,008	<u>262,749</u>
		<u>438,325</u>
Software — 0.8%		
Cadence Design Systems, Inc. (a)	106	17,028
DocuSign, Inc. (a)	61	3,381
Dropbox, Inc. Class A (a)	736	16,472
Electronic Arts, Inc.	6,935	847,318
Manhattan Associates, Inc. (a)	229	27,800
Synopsys, Inc. (a)	54	17,242
Teradata Corp. (a)	409	<u>13,767</u>
		<u>943,008</u>
		<u>3,985,929</u>
Utilities — 10.3%		
Electric — 8.4%		
CenterPoint Energy, Inc.	18,900	566,811
Consolidated Edison, Inc.	6,634	632,287
DTE Energy Co.	5,428	637,953
Duke Energy Corp.	4,155	427,923
Edison International	23,423	1,490,171
Eversource Energy	14,712	925,826
Exelon Corp.	10,542	883,841
	9,900	427,977

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
NorthWestern Corp.	10,403	\$ 617,314
OGE Energy Corp.	17,100	676,305
PG&E Corp. (a)	36,745	597,474
Pinnacle West Capital Corp.	4,212	320,280
Vistra Corp.	28,200	654,240
Xcel Energy, Inc.	5,514	386,587
		<u>9,244,989</u>
Gas — 1.9%		
Atmos Energy Corp.	899	100,751
NiSource, Inc.	27,100	743,082
Spire, Inc.	11,260	775,364
UGI Corp.	12,800	474,496
		<u>2,093,693</u>
		<u>11,338,682</u>
TOTAL COMMON STOCK (Cost \$109,483,432)		<u>106,619,046</u>
PREFERRED STOCK — 0.4%		
Consumer, Non-cyclical — 0.4%		
Household Products & Wares — 0.4%		
Henkel AG & Co. KGaA 2.84%	5,707	397,287
		<u>397,287</u>
TOTAL PREFERRED STOCK (Cost \$371,512)		<u>397,287</u>
TOTAL EQUITIES (Cost \$109,854,944)		<u>107,016,333</u>
MUTUAL FUNDS — 0.4%		
Diversified Financial Services — 0.4%		
iShares Russell Mid-Cap Value ETF (b)	4,395	462,969
		<u>462,969</u>
TOTAL MUTUAL FUNDS (Cost \$433,385)		<u>462,969</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$110,288,329)		<u>107,479,302</u>
	Principal Amount	
SHORT-TERM INVESTMENTS — 2.4%		
Repurchase Agreement — 2.4%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 2,617,871	\$ <u>2,617,871</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$2,617,871)		<u>2,617,871</u>

MassMutual Mid Cap Value Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL INVESTMENTS — 99.9% (Cost \$112,906,200) (e)		\$ 110,097,173
Other Assets/(Liabilities) — 0.1%		127,561
NET ASSETS — 100.0%		\$ 110,224,734

Abbreviation Legend

ETF Exchange-Traded Fund

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$204,697 or 0.19% of net assets. The Fund received \$209,338 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).

(c) Security is a Master Limited Partnership.

(d) Maturity value of \$2,618,244. Collateralized by U.S. Government Agency obligations with rates ranging from 0.000% - 2.875%, maturity dates ranging from 6/29/23 - 5/15/28, and an aggregate market value, including accrued interest, of \$2,670,350.

(e) See Note 3 for aggregate cost for federal tax purposes.

Forward contracts

Counterparty	Settlement Date	Currency Purchased	Currency Sold	Unrealized Appreciation (Depreciation)
Bank of America N.A.	3/31/23	GBP	34,026	USD 41,194 \$ 28
Bank of America N.A.	3/31/23	USD	339,185	GBP 278,220 2,114
JP Morgan Chase Bank N.A.	3/31/23	USD	2,798,880	EUR 2,614,181 (16,160)
UBS AG	3/31/23	NOK	233,181	USD 23,744 148
UBS AG	3/31/23	USD	23,635	NOK 233,181 (257)
				\$ (14,127)

Currency Legend

EUR Euro

GBP British Pound

NOK Norwegian Krone

USD U.S. Dollar

MassMutual Small Cap Value Equity Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.1%		
COMMON STOCK — 97.1%		
Basic Materials — 8.4%		
Chemicals — 4.6%		
Axalta Coating Systems Ltd. (a)	12,585	\$ 320,540
Cabot Corp.	10,529	703,758
Element Solutions, Inc.	25,645	466,482
H.B. Fuller Co.	4,314	308,969
Mativ Holdings, Inc.	18,492	386,483
Orion Engineered Carbons SA	12,643	225,172
		<u>2,411,404</u>
Iron & Steel — 2.0%		
ATI, Inc. (a)	34,284	1,023,720
Mining — 1.8%		
Ferroglobe PLC (a)	46,530	179,141
Kaiser Aluminum Corp.	9,549	725,342
		<u>904,483</u>
		<u>4,339,607</u>
Communications — 4.3%		
Internet — 2.2%		
ePlus, Inc. (a)	6,123	271,126
Perficient, Inc. (a)	2,676	186,865
Shutterstock, Inc.	6,541	344,842
Ziff Davis, Inc. (a)	4,439	351,125
		<u>1,153,958</u>
Media — 0.3%		
WideOpenWest, Inc. (a)	17,150	156,237
Telecommunications — 1.8%		
Ciena Corp. (a)	8,815	449,388
Infinera Corp. (a) (b)	71,997	485,260
		<u>934,648</u>
		<u>2,244,843</u>
Consumer, Cyclical — 12.2%		
Apparel — 1.6%		
Deckers Outdoor Corp. (a)	944	376,807
Kontoor Brands, Inc.	10,779	431,052
		<u>807,859</u>

MassMutual Small Cap Value Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Auto Parts & Equipment — 5.1%		
Adient PLC (a)	22,039	\$ 764,533
American Axle & Manufacturing Holdings, Inc. (a)	80,078	626,210
Gentherm, Inc. (a)	14,771	964,399
Visteon Corp. (a)	2,494	326,290
		<u>2,681,432</u>
Food Services — 1.1%		
Aramark	14,235	588,475
Home Builders — 1.3%		
Century Communities, Inc.	6,862	343,168
TRI Pointe Homes, Inc. (a)	19,037	353,898
		<u>697,066</u>
Home Furnishing — 0.3%		
Sonos, Inc. (a)	10,010	169,169
Lodging — 0.5%		
Wyndham Hotels & Resorts, Inc.	3,474	247,731
Office Furnishings — 0.8%		
Interface, Inc.	40,895	403,634
Retail — 0.7%		
Five Below, Inc. (a)	2,068	365,767
Textiles — 0.8%		
UniFirst Corp.	2,108	406,823
		<u>6,367,956</u>
Consumer, Non-cyclical — 13.5%		
Agriculture — 1.6%		
Darling Ingredients, Inc. (a)	13,223	827,628
Beverages — 0.5%		
C&C Group PLC (a)	125,006	263,965
Commercial Services — 4.5%		
BrightView Holdings, Inc. (a)	26,567	183,047
Huron Consulting Group, Inc. (a)	5,456	396,106
ICF International, Inc.	2,771	274,467
Monro, Inc.	8,686	392,607
Sterling Check Corp. (a)	15,851	245,215
WillScot Mobile Mini Holdings Corp. (a)	19,101	862,792
		<u>2,354,234</u>
Food — 2.3%		
Cranswick PLC	6,218	231,393
Post Holdings, Inc. (a)	2,739	247,222
SunOpta, Inc. (a)	50,447	425,773
United Natural Foods, Inc. (a)	8,222	318,274
		<u>1,222,662</u>

MassMutual Small Cap Value Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Health Care – Products — 2.7%		
Azenta, Inc.	7,592	\$ 442,006
Haemonetics Corp. (a)	3,984	313,341
ICU Medical, Inc. (a)	2,365	372,440
Integra LifeSciences Holdings Corp. (a)	5,282	296,162
		<u>1,423,950</u>
Health Care – Services — 0.5%		
Syneos Health, Inc. (a)	6,421	235,522
Household Products & Wares — 1.0%		
ACCO Brands Corp.	38,146	213,236
Spectrum Brands Holdings, Inc.	4,707	286,751
		<u>499,987</u>
Pharmaceuticals — 0.4%		
Owens & Minor, Inc.	11,304	220,767
		<u>7,048,714</u>
Energy — 2.2%		
Oil & Gas — 1.3%		
Chord Energy Corp.	2,463	336,963
Sitio Royalties Corp. Class A (a)	12,609	363,774
		<u>700,737</u>
Oil & Gas Services — 0.9%		
NOW, Inc. (a)	35,263	447,840
		<u>1,148,577</u>
Financial — 22.8%		
Banks — 11.9%		
Cadence Bank	12,313	303,638
Eastern Bankshares, Inc.	18,848	325,128
First Citizens BancShares, Inc. Class A	564	427,715
First Interstate BancSystem, Inc. Class A	7,701	297,644
Hancock Whitney Corp.	8,271	400,234
International Bancshares Corp.	6,989	319,816
OFG Bancorp	32,080	884,125
Old National Bancorp	43,099	774,920
Seacoast Banking Corp. of Florida	10,720	334,357
Synovus Financial Corp.	8,426	316,396
Texas Capital Bancshares, Inc. (a)	14,448	871,359
Umpqua Holdings Corp.	37,222	664,413
Webster Financial Corp.	6,111	289,295
		<u>6,209,040</u>
Diversified Financial Services — 1.1%		
Air Lease Corp.	10,196	391,730
Houlihan Lokey, Inc.	1,804	157,237
		<u>548,967</u>
Insurance — 4.7%		
Assured Guaranty Ltd.	5,373	334,523

MassMutual Small Cap Value Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Kemper Corp.	9,179	\$ 451,607
NMI Holdings, Inc. Class A (a)	15,077	315,109
ProAssurance Corp.	18,846	329,239
Reinsurance Group of America, Inc.	3,376	479,696
SiriusPoint Ltd. (a)	32,703	192,948
White Mountains Insurance Group Ltd.	250	353,582
		<u>2,456,704</u>
Real Estate — 0.5%		
Alexander & Baldwin, Inc.	14,404	269,787
Real Estate Investment Trusts (REITS) — 4.0%		
Centerspace	4,997	293,174
Kimco Realty Corp.	11,140	235,945
LXP Industrial Trust	21,230	212,725
Pebblebrook Hotel Trust (b)	23,033	308,412
Phillips Edison & Co., Inc.	10,516	334,829
PotlatchDeltic Corp.	7,119	313,165
RPT Realty	38,597	387,514
		<u>2,085,764</u>
Savings & Loans — 0.6%		
Banc of California, Inc.	19,781	315,111
		<u>11,885,373</u>
Industrial — 23.4%		
Aerospace & Defense — 0.6%		
Hexcel Corp.	4,812	283,186
Building Materials — 4.4%		
American Woodmark Corp. (a)	5,277	257,834
Apogee Enterprises, Inc.	15,918	707,714
The AZEK Co., Inc (a)	7,150	145,288
Fortune Brands Innovations, Inc.	4,260	243,289
Gibraltar Industries, Inc. (a)	15,427	707,791
Masonite International Corp. (a)	3,064	246,989
		<u>2,308,905</u>
Electrical Components & Equipment — 0.8%		
Belden, Inc.	5,478	393,868
Electronics — 3.6%		
Brady Corp. Class A	2,600	122,460
Coherent Corp. (a)	18,366	644,647
CTS Corp.	8,064	317,883
FARO Technologies, Inc. (a)	7,346	216,046
National Instruments Corp.	8,656	319,406
Vishay Precision Group, Inc. (a)	6,367	246,084
		<u>1,866,526</u>
Environmental Controls — 1.4%		
Clean Harbors, Inc. (a)	2,472	282,105
Harsco Corp. (a)	68,079	428,217
		<u>710,322</u>

MassMutual Small Cap Value Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Hand & Machine Tools — 3.2%		
Enerpac Tool Group Corp.	35,508	\$ 903,679
Kennametal, Inc.	23,264	559,732
Luxfer Holdings PLC	16,236	222,758
		<u>1,686,169</u>
Machinery – Diversified — 0.5%		
Thermon Group Holdings, Inc. (a)	12,773	256,482
Metal Fabricate & Hardware — 0.7%		
Standex International Corp.	3,672	376,050
Miscellaneous - Manufacturing — 1.3%		
John Bean Technologies Corp.	2,757	251,797
Materion Corp.	4,652	407,096
		<u>658,893</u>
Packaging & Containers — 1.9%		
Sealed Air Corp.	9,575	477,601
TriMas Corp.	18,749	520,097
		<u>997,698</u>
Transportation — 2.8%		
Air Transport Services Group, Inc. (a)	30,611	795,274
Kirby Corp. (a)	10,529	677,541
		<u>1,472,815</u>
Trucking & Leasing — 2.2%		
GATX Corp.	3,418	363,470
The Greenbrier Cos., Inc.	23,753	796,438
		<u>1,159,908</u>
		<u>12,170,822</u>
Technology — 8.5%		
Computers — 3.6%		
Science Applications International Corp.	2,960	328,353
Super Micro Computer, Inc. (a)	14,205	1,166,230
WNS Holdings Ltd. ADR (a)	4,937	394,911
		<u>1,889,494</u>
Semiconductors — 2.5%		
Cohu, Inc. (a)	18,856	604,335
Diodes, Inc. (a)	7,591	577,978
Onto Innovation, Inc. (a)	1,398	95,190
		<u>1,277,503</u>

MassMutual Small Cap Value Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Software — 2.4%		
ACI Worldwide, Inc. (a)	16,945	\$ 389,735
Concentrix Corp.	3,037	404,407
Progress Software Corp.	9,437	476,097
		<u>1,270,239</u>
		<u>4,437,236</u>
Utilities — 1.8%		
Electric — 0.5%		
Portland General Electric Co.	5,458	267,442
Gas — 1.3%		
New Jersey Resources Corp.	5,722	283,926
Spire, Inc.	2,676	184,269
UGI Corp.	5,395	199,993
		<u>668,188</u>
		<u>935,630</u>
TOTAL COMMON STOCK (Cost \$45,155,346)		<u>50,578,758</u>
TOTAL EQUITIES (Cost \$45,155,346)		<u>50,578,758</u>
MUTUAL FUNDS — 0.9%		
Diversified Financial Services — 0.9%		
State Street Navigator Securities Lending Government Money Market Portfolio (c)	452,296	452,296
TOTAL MUTUAL FUNDS (Cost \$452,296)		<u>452,296</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$45,607,642)		<u>51,031,054</u>
	Principal Amount	
SHORT-TERM INVESTMENTS — 2.9%		
Repurchase Agreement — 2.9%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 1,532,239	<u>\$ 1,532,239</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$1,532,239)		<u>1,532,239</u>
TOTAL INVESTMENTS — 100.9% (Cost \$47,139,881) (e)		52,563,293
Other Assets/(Liabilities) — (0.9%)		<u>(452,257)</u>
NET ASSETS — 100.0%		<u>\$ 52,111,036</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Non-income producing security.
- (b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$766,535 or 1.47% of net assets. The Fund received \$336,401 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (*Note 2*).
- (c) Represents investment of security lending cash collateral. (*Note 2*).
- (d) Maturity value of \$1,532,457. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,563,044.
- (e) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Small Company Value Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 99.4%		
COMMON STOCK — 99.4%		
Basic Materials — 3.6%		
Chemicals — 2.3%		
AdvanSix, Inc.	41,060	\$ 1,561,101
Element Solutions, Inc.	16,536	300,790
H.B. Fuller Co.	19,640	1,406,617
Innospec, Inc.	7,830	805,394
Minerals Technologies, Inc.	12,669	769,261
		<u>4,843,163</u>
Iron & Steel — 1.3%		
ATI, Inc. (a)	64,310	1,920,297
Haynes International, Inc.	18,880	862,627
		<u>2,782,924</u>
		<u>7,626,087</u>
Communications — 2.3%		
Advertising — 0.2%		
Entravision Communications Corp. Class A	100,460	482,208
Internet — 0.8%		
Criteo SA Sponsored ADR (a)	63,861	1,664,218
Solo Brands, Inc. Class A (a)	33,845	125,903
		<u>1,790,121</u>
Media — 0.3%		
Cable One, Inc.	725	516,098
Townsquare Media, Inc. Class A (a)	11,915	86,384
		<u>602,482</u>
Telecommunications — 1.0%		
A10 Networks, Inc.	88,149	1,465,918
Casa Systems, Inc. (a)	203,780	556,320
		<u>2,022,238</u>
		<u>4,897,049</u>
Consumer, Cyclical — 18.7%		
Airlines — 0.7%		
Alaska Air Group, Inc. (a)	36,590	1,571,175
Apparel — 0.7%		
Tapestry, Inc.	36,253	1,380,514

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Auto Manufacturers — 1.3%		
Blue Bird Corp. (a)	81,556	\$ 873,465
REV Group, Inc.	144,380	1,822,075
		<u>2,695,540</u>
Auto Parts & Equipment — 2.6%		
Dana, Inc.	92,286	1,396,287
The Goodyear Tire & Rubber Co. (a)	174,550	1,771,682
The Shyft Group, Inc.	91,738	2,280,607
		<u>5,448,576</u>
Distribution & Wholesale — 1.2%		
A-Mark Precious Metals, Inc.	16,449	571,274
H&E Equipment Services, Inc.	33,858	1,537,153
KAR Auction Services, Inc. (a)	37,063	483,672
		<u>2,592,099</u>
Entertainment — 1.6%		
Accel Entertainment, Inc. (a)	52,142	401,493
IMAX Corp. (a)	89,000	1,304,740
Penn Entertainment, Inc. (a)	9,407	279,388
Six Flags Entertainment Corp. (a)	62,630	1,456,148
		<u>3,441,769</u>
Home Builders — 2.6%		
KB Home	56,280	1,792,518
Skyline Champion Corp. (a)	27,315	1,406,996
Taylor Morrison Home Corp. (a)	79,184	2,403,234
		<u>5,602,748</u>
Home Furnishing — 0.1%		
Vizio Holding Corp. Class A (a)	20,573	152,446
Leisure Time — 0.9%		
Brunswick Corp.	18,519	1,334,849
Malibu Boats, Inc. Class A (a)	12,732	678,616
		<u>2,013,465</u>
Lodging — 0.9%		
Boyd Gaming Corp.	5,695	310,549
Hilton Grand Vacations, Inc. (a)	39,580	1,525,413
		<u>1,835,962</u>
Retail — 6.1%		
Beacon Roofing Supply, Inc. (a)	25,379	1,339,757
Citi Trends, Inc. (a)	43,009	1,138,878
Dave & Buster's Entertainment, Inc. (a)	20,138	713,691
Dine Brands Global, Inc.	25,708	1,660,737
Genesco, Inc. (a)	30,560	1,406,371
GMS, Inc. (a)	17,759	884,398
MarineMax, Inc. (a)	20,285	633,298
OneWater Marine, Inc. Class A (a)	18,531	529,987
Papa John's International, Inc.	18,380	1,512,858

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Penske Automotive Group, Inc.	5,877	\$ 675,444
Red Robin Gourmet Burgers, Inc. (a) (b)	20,554	114,691
RH (a) (b)	1,026	274,137
Sally Beauty Holdings, Inc. (a)	166,960	2,090,339
		<u>12,974,586</u>
		<u>39,708,880</u>
Consumer, Non-cyclical — 12.4%		
Commercial Services — 5.0%		
Adtalem Global Education, Inc. (a)	44,759	1,588,945
AMN Healthcare Services, Inc. (a)	1,188	122,150
Barrett Business Services, Inc.	3,886	362,486
The Brink's Co.	22,183	1,191,449
Deluxe Corp.	29,878	507,328
Euronet Worldwide, Inc. (a)	4,365	411,969
EVERTEC, Inc.	44,898	1,453,797
Herc Holdings, Inc.	16,284	2,142,486
Korn Ferry	48,619	2,461,094
Loomis AB	15,068	412,754
		<u>10,654,458</u>
Cosmetics & Personal Care — 0.6%		
Edgewell Personal Care Co.	30,899	1,190,847
Food — 1.6%		
The Hain Celestial Group, Inc. (a)	87,244	1,411,608
Nomad Foods Ltd. (a)	120,248	2,073,075
		<u>3,484,683</u>
Health Care – Products — 1.8%		
Envista Holdings Corp. (a)	39,720	1,337,372
Integra LifeSciences Holdings Corp. (a)	41,600	2,332,512
Zimvie, Inc. (a)	11,847	110,651
		<u>3,780,535</u>
Health Care – Services — 2.1%		
Acadia Healthcare Co., Inc. (a)	25,210	2,075,287
Pediatrix Medical Group, Inc. (a)	94,880	1,409,917
Syneos Health, Inc. (a)	23,960	878,853
		<u>4,364,057</u>
Household Products & Wares — 0.7%		
Spectrum Brands Holdings, Inc.	26,055	1,587,271
Pharmaceuticals — 0.6%		
Embecka Corp.	16,821	425,403
Patterson Cos., Inc.	29,581	829,156
		<u>1,254,559</u>
		<u>26,316,410</u>

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Energy — 3.8%		
Energy – Alternate Sources — 0.3%		
Enviva, Inc. (b)	11,562	\$ 612,439
Oil & Gas — 3.0%		
Earthstone Energy, Inc. Class A (a)	16,170	230,099
Helmerich & Payne, Inc.	45,590	2,259,897
HF Sinclair Corp.	29,980	1,555,662
Magnolia Oil & Gas Corp. Class A	97,320	2,282,154
		<u>6,327,812</u>
Oil & Gas Services — 0.5%		
ChampionX Corp.	33,757	978,615
NCS Multistage Holdings, Inc. (a)	748	18,700
		<u>997,315</u>
		<u>7,937,566</u>
Financial — 34.1%		
Banks — 19.5%		
1st Source Corp.	31,748	1,685,501
Ameris Bancorp	16,739	789,076
Associated Banc-Corp.	106,939	2,469,222
Bank of Marin Bancorp	28,346	932,016
BankUnited, Inc.	83,342	2,831,128
Carter Bankshares, Inc. (a)	66,675	1,106,138
ConnectOne Bancorp, Inc.	13,929	337,221
F.N.B. Corp.	104,681	1,366,087
First BanCorp	261,812	3,330,249
First Interstate BancSystem, Inc. Class A	12,393	478,989
First Merchants Corp.	8,001	328,921
First Mid Bancshares, Inc.	4,018	128,897
HarborOne Bancorp, Inc.	125,437	1,743,574
Heritage Financial Corp.	75,852	2,324,105
Home BancShares, Inc.	49,159	1,120,334
Independent Bank Group, Inc.	35,282	2,119,743
Old National Bancorp	86,729	1,559,387
Origin Bancorp, Inc.	9,158	336,099
PacWest Bancorp	10,607	243,431
Premier Financial Corp.	74,238	2,002,199
QCR Holdings, Inc.	5,237	259,965
Sandy Spring Bancorp, Inc.	36,129	1,272,825
SouthState Corp.	17,316	1,322,250
Synovus Financial Corp.	40,987	1,539,062
Texas Capital Bancshares, Inc. (a)	37,450	2,258,610
Towne Bank	10,822	333,750
TriCo Bancshares	41,210	2,101,298
UMB Financial Corp.	15,619	1,304,499
Umpqua Holdings Corp.	67,004	1,196,021
Valley National Bancorp	98,489	1,113,911
Veritex Holdings, Inc.	23,539	660,975
Webster Financial Corp.	12,812	606,520
		<u>41,202,003</u>

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Diversified Financial Services — 1.2%		
Enact Holdings, Inc.	4,035	\$ 97,324
Moelis & Co. Class A	44,059	1,690,544
Stifel Financial Corp.	13,155	767,857
		<u>2,555,725</u>
Insurance — 2.7%		
Axis Capital Holdings Ltd.	19,459	1,054,094
The Hanover Insurance Group, Inc.	13,180	1,781,014
ProAssurance Corp.	5,198	90,809
Selective Insurance Group, Inc.	31,784	2,816,380
		<u>5,742,297</u>
Investment Companies — 0.5%		
Compass Diversified Holdings (b)	62,139	1,132,794
Private Equity — 0.1%		
Patria Investments Ltd. Class A	14,892	207,446
Real Estate Investment Trusts (REITS) — 6.7%		
Broadstone Net Lease, Inc.	99,420	1,611,598
CareTrust REIT, Inc.	18,967	352,407
Cousins Properties, Inc.	34,432	870,785
Easterly Government Properties, Inc.	16,536	235,969
Four Corners Property Trust, Inc.	22,617	586,459
Getty Realty Corp.	5,723	193,724
Highwoods Properties, Inc.	17,262	482,991
Independence Realty Trust, Inc.	111,740	1,883,936
Kite Realty Group Trust	24,048	506,210
National Health Investors, Inc.	7,457	389,404
National Storage Affiliates Trust	30,354	1,096,386
NETSTREIT Corp.	93,303	1,710,244
Physicians Realty Trust	141,431	2,046,507
STAG Industrial, Inc.	52,032	1,681,154
Summit Hotel Properties, Inc.	36,422	262,967
UMH Properties, Inc.	10,562	170,048
		<u>14,080,789</u>
Savings & Loans — 3.4%		
Berkshire Hills Bancorp, Inc.	72,857	2,178,425
Pacific Premier Bancorp, Inc.	90,368	2,852,014
Provident Financial Services, Inc.	15,803	337,552
WSFS Financial Corp.	42,245	1,915,388
		<u>7,283,379</u>
		<u>72,204,433</u>
Industrial — 17.2%		
Aerospace & Defense — 0.8%		
Leonardo DRS, Inc. (a)	12,228	156,274
Spirit AeroSystems Holdings, Inc. Class A	51,430	1,522,328
		<u>1,678,602</u>

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Building Materials — 1.6%		
Hayward Holdings, Inc. (a) (b)	37,750	\$ 354,850
Masonite International Corp. (a)	23,867	1,923,919
Mohawk Industries, Inc. (a)	3,939	402,645
Tecnoglass, Inc.	21,837	671,924
		<u>3,353,338</u>
Electrical Components & Equipment — 0.9%		
Belden, Inc.	24,960	1,794,624
Graham Corp.	4,958	47,696
		<u>1,842,320</u>
Electronics — 2.8%		
Advanced Energy Industries, Inc.	2,335	200,296
Avnet, Inc.	32,210	1,339,292
Coherent Corp. (a)	49,706	1,744,680
TTM Technologies, Inc. (a)	132,450	1,997,346
Vontier Corp.	39,817	769,663
		<u>6,051,277</u>
Engineering & Construction — 3.1%		
Arcosa, Inc.	33,560	1,823,650
Dycom Industries, Inc. (a)	25,543	2,390,825
Fluor Corp. (a)	41,351	1,433,226
Great Lakes Dredge & Dock Corp. (a)	156,810	933,019
		<u>6,580,720</u>
Environmental Controls — 0.4%		
CECO Environmental Corp. (a)	12,736	148,756
Charah Solutions, Inc. (a)	2,643	14,273
Heritage-Crystal Clean, Inc. (a)	23,824	773,804
		<u>936,833</u>
Hand & Machine Tools — 0.1%		
Luxfer Holdings PLC	9,596	131,657
Machinery – Construction & Mining — 0.6%		
Terex Corp.	29,319	1,252,508
Machinery – Diversified — 2.7%		
Cactus, Inc. Class A	29,580	1,486,691
DXP Enterprises, Inc. (a)	11,754	323,823
Enovis Corp. (a)	13,988	748,638
Esab Corp.	9,337	438,092
Gates Industrial Corp. PLC (a)	73,712	841,054
Ichor Holdings Ltd. (a)	67,180	1,801,767
		<u>5,640,065</u>
Metal Fabricate & Hardware — 0.8%		
Hillman Solutions Corp. (a)	57,777	416,572
The Timken Co.	17,315	1,223,651
		<u>1,640,223</u>

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Miscellaneous - Manufacturing — 0.0%		
DIRTT Environmental Solutions (a) (b)	61,401	\$ 32,542
Packaging & Containers — 1.8%		
Graphic Packaging Holding Co.	68,971	1,534,605
Karat Packaging, Inc.	5,242	75,328
O-I Glass, Inc. (a)	100,960	1,672,907
Pactiv Evergreen, Inc.	56,607	643,055
		3,925,895
Transportation — 1.6%		
ArcBest Corp.	28,440	1,991,938
Star Bulk Carriers Corp.	76,510	1,471,287
		3,463,225
		36,529,205
Technology — 5.2%		
Computers — 0.2%		
Unisys Corp. (a)	80,062	409,117
Semiconductors — 2.2%		
Cohu, Inc. (a)	14,267	457,257
Kulicke & Soffa Industries, Inc.	54,898	2,429,785
Magnachip Semiconductor Corp. (a)	149,800	1,406,622
MKS Instruments, Inc.	3,772	319,602
		4,613,266
Software — 2.8%		
ACI Worldwide, Inc. (a)	59,970	1,379,310
CommVault Systems, Inc. (a)	27,277	1,714,087
Digital Turbine, Inc. (a)	22,924	349,362
Donnelley Financial Solutions, Inc. (a)	19,406	750,042
IBEX Holdings Ltd. (a)	9,500	236,075
Teradata Corp. (a)	45,546	1,533,078
		5,961,954
		10,984,337
Utilities — 2.1%		
Electric — 1.3%		
ALLETE, Inc.	4,565	294,488
IDACORP, Inc.	21,450	2,313,383
PNM Resources, Inc.	2,823	137,734
		2,745,605
Gas — 0.8%		
Northwest Natural Holding Co.	3,063	145,768

MassMutual Small Company Value Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Southwest Gas Holdings, Inc.	24,660	\$ 1,525,961
		1,671,729
		4,417,334
TOTAL COMMON STOCK (Cost \$220,260,901)		210,621,301
TOTAL EQUITIES (Cost \$220,260,901)		210,621,301
MUTUAL FUNDS — 0.2%		
Diversified Financial Services — 0.2%		
State Street Navigator Securities Lending Government Money Market Portfolio (c)	509,390	509,390
TOTAL MUTUAL FUNDS (Cost \$509,390)		509,390
TOTAL LONG-TERM INVESTMENTS (Cost \$220,770,291)		211,130,691
	Principal Amount	
SHORT-TERM INVESTMENTS — 1.2%		
Repurchase Agreement — 1.2%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (d)	\$ 2,535,191	\$ 2,535,191
TOTAL SHORT-TERM INVESTMENTS (Cost \$2,535,191)		2,535,191
TOTAL INVESTMENTS — 100.8%		
(Cost \$223,305,482) (e)		213,665,882
Other Assets/(Liabilities) — (0.8)%		(1,697,993)
NET ASSETS — 100.0%		\$ 211,967,889

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$2,330,215 or 1.10% of net assets. The Fund received \$1,901,825 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).

(c) Represents investment of security lending cash collateral. (Note 2).

(d) Maturity value of \$2,535,552. Collateralized by U.S. Government Agency obligations with rates ranging from 0.000% - 3.000%, maturity dates ranging from 6/29/23 - 6/30/24, and an aggregate market value, including accrued interest, of \$2,585,958.

(e) See Note 3 for aggregate cost for federal tax purposes.

Forward contracts

Counterparty	Settlement Date	Currency Purchased		Currency Sold		Unrealized Appreciation (Depreciation)
UBS AG	3/31/23	SEK	94,778	USD	\$9,143	\$ (15)
UBS AG	3/31/23	USD	368,179	SEK	3,803,917	1,828
						<u>\$ 1,813</u>

Currency Legend

SEK Swedish Krona

USD U.S. Dollar

MassMutual Mid Cap Growth Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.6%		
COMMON STOCK — 97.1%		
Basic Materials — 1.0%		
Chemicals — 0.8%		
RPM International, Inc.	295,000	\$ 28,747,750
The Sherwin-Williams Co.	51,010	12,106,203
		<u>40,853,953</u>
Iron & Steel — 0.2%		
ATI, Inc. (a)	372,906	11,134,973
		<u>51,988,926</u>
Communications — 3.9%		
Advertising — 1.0%		
The Trade Desk, Inc. Class A (a)	1,217,769	54,592,584
Internet — 1.5%		
Chewy, Inc. Class A (a) (b)	172,421	6,393,371
Match Group, Inc. (a)	187,000	7,758,630
Okta, Inc. (a)	124,805	8,527,925
Palo Alto Networks, Inc. (a)	275,039	38,378,942
Spotify Technology SA (a)	200,000	15,790,000
		<u>76,848,868</u>
Media — 0.8%		
Liberty Media Corp-Liberty Formula One Class C (a)	696,000	41,606,880
Telecommunications — 0.6%		
Arista Networks, Inc. (a)	158,393	19,220,991
Corning, Inc.	370,000	11,817,800
		<u>31,038,791</u>
		<u>204,087,123</u>
Consumer, Cyclical — 15.2%		
Airlines — 0.8%		
Southwest Airlines Co. (a)	1,315,000	44,276,050
Apparel — 0.1%		
On Holding AG, Class A (a) (b)	223,000	3,826,680
Auto Manufacturers — 0.1%		
Rivian Automotive, Inc. Class A (a)	335,000	6,174,050
Auto Parts & Equipment — 0.0%		
Mobileye Global, Inc. Class A (a)	73,770	2,586,376

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Entertainment — 0.9%		
Caesars Entertainment, Inc. (a)	482,011	\$ 20,051,657
Live Nation Entertainment, Inc. (a)	124,193	8,661,220
Vail Resorts, Inc.	81,000	19,306,350
		<u>48,019,227</u>
Leisure Time — 0.5%		
Planet Fitness, Inc. Class A (a)	311,886	24,576,617
Lodging — 2.2%		
Hilton Worldwide Holdings, Inc.	488,000	61,663,680
MGM Resorts International	1,547,000	51,870,910
		<u>113,534,590</u>
Retail — 10.1%		
Advance Auto Parts, Inc.	92,757	13,638,062
Bath & Body Works, Inc.	589,000	24,820,460
Burlington Stores, Inc. (a)	473,113	95,928,392
Casey's General Stores, Inc.	184,000	41,280,400
Chipotle Mexican Grill, Inc. (a)	24,869	34,505,489
Darden Restaurants, Inc.	69,706	9,642,431
Dollar General Corp.	296,994	73,134,772
Dollar Tree, Inc. (a)	295,000	41,724,800
Domino's Pizza, Inc.	110,000	38,104,000
Five Below, Inc. (a)	163,000	28,829,810
Floor & Decor Holdings, Inc. Class A (a)	73,828	5,140,644
Leslie's, Inc. (a) (b)	553,335	6,756,220
Lithia Motors, Inc.	40,717	8,336,399
Lululemon Athletica, Inc. (a)	28,000	8,970,640
O'Reilly Automotive, Inc. (a)	60,829	51,341,501
Ross Stores, Inc.	321,433	37,308,728
Yum! Brands, Inc.	112,000	14,344,960
		<u>533,807,708</u>
Toys, Games & Hobbies — 0.5%		
Mattel, Inc. (a)	1,391,658	24,827,179
		<u>801,628,477</u>
Consumer, Non-cyclical — 30.0%		
Beverages — 0.3%		
The Boston Beer Co., Inc. Class A (a)	54,000	17,794,080
Biotechnology — 3.7%		
Alnylam Pharmaceuticals, Inc. (a)	231,000	54,897,150
Apellis Pharmaceuticals, Inc. (a)	147,000	7,601,370
Argenx SE ADR (a)	51,561	19,532,854
BioMarin Pharmaceutical, Inc. (a)	83,254	8,615,956
CRISPR Therapeutics AG (a) (b)	140,152	5,697,179
Horizon Therapeutics PLC (a)	297,000	33,798,600
Illumina, Inc. (a)	37,509	7,584,320
Ionis Pharmaceuticals, Inc. (a)	619,000	23,379,630
Karuna Therapeutics, Inc. (a)	37,000	7,270,500
Sarepta Therapeutics, Inc. (a)	72,178	9,352,825

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Seagen, Inc. (a)	118,000	\$ 15,164,180
		<u>192,894,564</u>
Commercial Services — 8.1%		
Block, Inc. (a)	144,900	9,105,516
Bright Horizons Family Solutions, Inc. (a)	384,546	24,264,853
Cintas Corp.	72,363	32,680,578
CoStar Group, Inc. (a)	544,000	42,040,320
Equifax, Inc.	347,986	67,634,559
FleetCor Technologies, Inc. (a)	257,000	47,205,760
Global Payments, Inc.	153,688	15,264,292
MarketAxess Holdings, Inc.	147,000	40,996,830
Moody's Corp.	28,795	8,022,863
Paylocity Holding Corp. (a)	125,000	24,282,500
Quanta Services, Inc.	137,747	19,628,947
TransUnion	716,539	40,663,588
United Rentals, Inc. (a)	58,000	20,614,360
Verisk Analytics, Inc.	205,000	36,166,100
		<u>428,571,066</u>
Food — 0.4%		
TreeHouse Foods, Inc. (a)	410,000	20,245,800
Health Care – Products — 12.3%		
Alcon, Inc.	636,998	43,666,213
Align Technology, Inc. (a)	35,761	7,541,995
Avantor, Inc. (a)	2,636,000	55,593,240
Bruker Corp.	1,002,000	68,486,700
The Cooper Cos., Inc.	173,000	57,205,910
Dentsply Sirona, Inc.	368,000	11,717,120
Edwards Lifesciences Corp. (a)	62,357	4,652,456
Exact Sciences Corp. (a)	329,719	16,324,388
Hologic, Inc. (a)	1,946,707	145,633,151
ICU Medical, Inc. (a)	127,000	19,999,960
IDEXX Laboratories, Inc. (a)	33,757	13,771,506
Inspire Medical Systems, Inc. (a)	57,357	14,447,081
Insulet Corp. (a)	58,074	17,096,405
Novocure Ltd. (a) (b)	68,273	5,007,824
Quidelortho Corp. (a)	290,000	24,844,300
ResMed, Inc.	19,360	4,029,397
Teleflex, Inc.	442,323	110,417,090
West Pharmaceutical Services, Inc.	118,000	27,771,300
		<u>648,206,036</u>
Health Care – Services — 3.3%		
Acadia Healthcare Co., Inc. (a)	589,000	48,486,480
agilon health, Inc. (a) (b)	195,000	3,147,300
Catalent, Inc. (a)	894,139	40,245,196
Humana, Inc.	44,109	22,592,189
Molina Healthcare, Inc. (a)	102,616	33,885,856
Signify Health, Inc. Class A (a)	831,620	23,834,229
		<u>172,191,250</u>
Household Products & Wares — 1.3%		
Avery Dennison Corp.	276,000	49,956,000

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Reynolds Consumer Products, Inc.	589,000	\$ 17,658,220
		<u>67,614,220</u>
Pharmaceuticals — 0.6%		
Ascendis Pharma A/S ADR (a)	87,000	10,625,310
DexCom, Inc. (a)	191,434	21,677,986
		<u>32,303,296</u>
		<u>1,579,820,312</u>
Energy — 3.8%		
Energy – Alternate Sources — 0.7%		
Array Technologies, Inc. (a)	651,423	12,592,007
Shoals Technologies Group, Inc. Class A (a)	616,399	15,206,563
SolarEdge Technologies, Inc. (a)	34,221	9,693,783
		<u>37,492,353</u>
Oil & Gas — 2.6%		
Coterra Energy, Inc.	1,507,890	37,048,857
Devon Energy Corp.	221,000	13,593,710
Pioneer Natural Resources Co.	206,000	47,048,340
SM Energy Co.	507,180	17,665,079
Venture Global LNG, Inc., Series B (Acquired 3/08/18, Cost \$652,320) (a) (c) (d) (e)	216	3,195,772
Venture Global LNG, Inc., Series C (Acquired 10/16/17-3/08/18, Cost \$4,872,708) (a) (c) (d) (e)	1,328	19,648,079
		<u>138,199,837</u>
Pipelines — 0.5%		
Cheniere Energy, Inc.	177,000	26,542,920
		<u>202,235,110</u>
Financial — 6.4%		
Banks — 0.3%		
SVB Financial Group (a)	68,028	15,655,964
Diversified Financial Services — 2.4%		
Apollo Global Management, Inc.	315,723	20,139,970
Cboe Global Markets, Inc.	103,000	12,923,410
Intercontinental Exchange, Inc.	293,000	30,058,870
LPL Financial Holdings, Inc.	68,507	14,809,158
Raymond James Financial, Inc.	146,000	15,600,100
Tradeweb Markets, Inc. Class A	529,000	34,347,970
		<u>127,879,478</u>
Insurance — 2.4%		
Aon PLC Class A	153,636	46,112,309
Assurant, Inc.	326,000	40,769,560
Axis Capital Holdings Ltd.	522,000	28,276,740
Kemper Corp.	176,000	8,659,200
		<u>123,817,809</u>

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Private Equity — 1.3%		
KKR & Co., Inc.	1,498,518	\$ 69,561,206
		<u>336,914,457</u>
Industrial — 17.4%		
Building Materials — 1.1%		
Builders FirstSource, Inc. (a)	238,786	15,492,436
Martin Marietta Materials, Inc.	128,000	43,260,160
		<u>58,752,596</u>
Electrical Components & Equipment — 0.2%		
Littelfuse, Inc.	30,000	6,606,000
Universal Display Corp.	29,983	3,239,363
		<u>9,845,363</u>
Electronics — 6.0%		
Agilent Technologies, Inc.	874,881	130,925,942
Amphenol Corp. Class A	524,076	39,903,146
Fortive Corp.	874,000	56,154,500
Keysight Technologies, Inc. (a)	378,000	64,664,460
National Instruments Corp.	591,000	21,807,900
		<u>313,455,948</u>
Engineering & Construction — 0.3%		
MasTec, Inc. (a)	176,492	15,060,062
Environmental Controls — 0.7%		
Waste Connections, Inc.	274,644	36,406,809
Machinery – Construction & Mining — 0.3%		
BWX Technologies, Inc.	255,000	14,810,400
Machinery – Diversified — 3.6%		
Cognex Corp.	369,000	17,383,590
Enovis Corp. (a)	438,000	23,441,760
Esab Corp.	465,000	21,817,800
IDEX Corp.	146,000	33,336,180
Ingersoll Rand, Inc.	1,776,000	92,796,000
		<u>188,775,330</u>
Miscellaneous - Manufacturing — 1.8%		
Textron, Inc.	1,351,000	95,650,800
Packaging & Containers — 1.8%		
Ball Corp.	1,093,000	55,896,020
Sealed Air Corp.	783,000	39,056,040
		<u>94,952,060</u>
Transportation — 1.6%		
J.B. Hunt Transport Services, Inc.	366,000	63,815,760
Knight-Swift Transportation Holdings, Inc.	241,679	12,666,396

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
XPO, Inc. (a)	257,737	\$ 8,580,065
		85,062,221
		<u>912,771,589</u>
Technology — 19.4%		
Computers — 3.4%		
Crowdstrike Holdings, Inc. Class A (a)	328,874	34,627,144
EPAM Systems, Inc. (a)	88,397	28,971,233
Fortinet, Inc. (a)	1,171,000	57,250,190
Genpact Ltd.	417,265	19,327,715
KBR, Inc.	457,318	24,146,390
Leidos Holdings, Inc.	111,000	11,676,090
		<u>175,998,762</u>
Semiconductors — 7.0%		
KLA Corp.	202,976	76,528,041
Lam Research Corp.	37,315	15,683,495
Lattice Semiconductor Corp. (a)	351,000	22,772,880
Marvell Technology, Inc.	2,153,947	79,782,197
Microchip Technology, Inc.	1,953,901	137,261,545
Monolithic Power Systems, Inc.	29,175	10,316,572
NXP Semiconductor NV	37,000	5,847,110
SiTime Corp. (a)	44,468	4,518,838
Wolfspeed, Inc. (a) (b)	233,037	16,088,874
		<u>368,799,552</u>
Software — 9.0%		
Atlassian Corp. (a)	185,624	23,886,096
Autodesk, Inc. (a)	34,272	6,404,409
Bill.com Holdings, Inc. (a)	202,595	22,074,751
Black Knight, Inc. (a)	561,000	34,641,750
Broadridge Financial Solutions, Inc.	162,000	21,729,060
CCC Intelligent Solutions Holdings, Inc. (a)	2,180,000	18,966,000
Clear Secure Inc. Class A (b)	255,000	6,994,650
Confluent, Inc. Class A (a)	148,000	3,291,520
Doximity, Inc. Class A (a) (b)	300,000	10,068,000
Fair Isaac Corp. (a)	118,806	71,114,895
HashiCorp, Inc. Class A (a) (b)	75,000	2,050,500
HubSpot, Inc. (a)	35,331	10,215,252
MongoDB, Inc. (a)	37,000	7,283,080
MSCI, Inc.	49,204	22,888,225
Paycom Software, Inc. (a)	66,881	20,753,843
PTC, Inc. (a)	254,000	30,490,160
Roper Technologies, Inc.	95,000	41,048,550
Synopsys, Inc. (a)	157,000	50,128,530
Veeva Systems, Inc. Class A (a)	399,315	64,441,455
Workday, Inc. Class A (a)	31,091	5,202,457
		<u>473,673,183</u>
		<u>1,018,471,497</u>
TOTAL COMMON STOCK		
(Cost \$4,519,616,026)		<u>5,107,917,491</u>

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
PREFERRED STOCK — 0.5%		
Consumer, Cyclical — 0.0%		
Auto Manufacturers — 0.0%		
Nuro, Inc., Series D (Acquired 10/29/21, Cost \$3,125,295) (a) (c) (d) (e)	149,925	\$ 2,080,959
Consumer, Non-cyclical — 0.2%		
Commercial Services — 0.1%		
Redwood Materials, Inc., Series C (Acquired 5/28/21, Cost \$3,678,889) (a) (c) (d) (e)	77,608	6,053,424
Health Care – Services — 0.1%		
Caris Life Sciences, Inc., Series D (Acquired 5/11/21, Cost \$5,006,003) (a) (c) (d) (e)	618,025	4,066,605
		<u>10,120,029</u>
Financial — 0.1%		
Investment Companies — 0.1%		
Maplebear, Inc., Series E (Acquired 11/19/21-12/01/21, Cost \$10,196,717) (a) (c) (d) (e)	84,807	4,111,443
Maplebear, Inc., Series I (Acquired 2/26/21, Cost \$1,765,375) (a) (c) (d) (e)	14,123	684,683
		<u>4,796,126</u>
Industrial — 0.1%		
Electrical Components & Equipment — 0.1%		
Sila Nanotechnologies, Inc., Series F (Acquired 1/07/21, Cost \$7,310,569) (a) (c) (d) (e)	177,128	5,521,080
Technology — 0.1%		
Software — 0.1%		
Databricks, Inc., Series H (Acquired 8/31/21, Cost \$3,472,858) (a) (c) (d) (e)	47,260	2,835,600
TOTAL PREFERRED STOCK		
(Cost \$34,555,706)		<u>25,353,794</u>
TOTAL EQUITIES		
(Cost \$4,554,171,732)		<u>5,133,271,285</u>
MUTUAL FUNDS — 0.2%		
Diversified Financial Services — 0.2%		
State Street Navigator Securities Lending Government Money Market Portfolio (f)	11,026,456	11,026,456
TOTAL MUTUAL FUNDS		
(Cost \$11,026,456)		<u>11,026,456</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$4,565,198,188)		<u>5,144,297,741</u>

MassMutual Mid Cap Growth Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
SHORT-TERM INVESTMENTS — 5.3%		
Mutual Fund — 4.0%		
T. Rowe Price Treasury Reserve Fund	\$ 211,333,493	<u>\$ 211,333,493</u>
Repurchase Agreement — 1.3%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (g)	\$ 67,540,273	<u>\$ 67,540,273</u>
TOTAL SHORT-TERM INVESTMENTS		
(Cost \$278,873,766)		<u>278,873,766</u>
TOTAL INVESTMENTS — 103.1%		
(Cost \$4,844,071,954) (h)		5,423,171,507
Other Assets/(Liabilities) — (3.1)%		<u>(162,886,641)</u>
NET ASSETS — 100.0%		<u>\$ 5,260,284,866</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Non-income producing security.
- (b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$39,037,202 or 0.74% of net assets. The Fund received \$28,941,047 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (*Note 2*).
- (c) Investment is valued using significant unobservable inputs.
- (d) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$48,197,645 or 0.92% of net assets.
- (e) Restricted security. Certain securities are restricted as to resale. At December 31, 2022, these securities amounted to a value of \$48,197,645 or 0.92% of net assets. The Fund generally bears the costs, if any, associated with the disposition of restricted securities.
- (f) Represents investment of security lending cash collateral. (*Note 2*).
- (g) Maturity value of \$67,549,878. Collateralized by U.S. Government Agency obligations with a rate of 0.000% – 4.275%, maturity date of 6/29/23 – 6/30/24, and an aggregate market value, including accrued interest, of \$68,891,254.
- (h) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.6%		
COMMON STOCK — 97.6%		
Basic Materials — 2.3%		
Chemicals — 2.3%		
Cabot Corp.	88,162	\$ 5,892,748
Livent Corp. (a)	241,801	4,804,586
Methanex Corp. (b)	49,312	1,866,952
Olin Corp.	48,476	2,566,320
		<u>15,130,606</u>
		<u>15,130,606</u>
Communications — 3.2%		
Internet — 1.4%		
Cargurus, Inc. (a)	123,587	1,731,454
Criteo SA Sponsored ADR (a)	66,302	1,727,830
Perficient, Inc. (a)	39,870	2,784,122
Ziff Davis, Inc. (a)	32,301	2,555,009
		<u>8,798,415</u>
Media — 0.7%		
The New York Times Co. Class A	62,464	2,027,581
World Wrestling Entertainment, Inc. Class A	40,694	2,788,353
		<u>4,815,934</u>
Telecommunications — 1.1%		
Calix, Inc. (a)	80,846	5,532,292
Viavi Solutions, Inc. (a)	167,982	1,765,491
		<u>7,297,783</u>
		<u>20,912,132</u>
Consumer, Cyclical — 11.8%		
Apparel — 2.3%		
Carter's, Inc. (b)	17,183	1,282,024
Crocs, Inc. (a)	37,012	4,013,211
Deckers Outdoor Corp. (a)	7,753	3,094,688
On Holding AG, Class A (a) (b)	39,752	682,144
Oxford Industries, Inc.	43,555	4,058,455
Steven Madden Ltd.	58,892	1,882,188
		<u>15,012,710</u>
Auto Parts & Equipment — 0.7%		
Visteon Corp. (a)	35,958	4,704,385

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Distribution & Wholesale — 0.7%		
H&E Equipment Services, Inc.	33,337	\$ 1,513,500
WESCO International, Inc. (a)	24,313	3,043,987
		<u>4,557,487</u>
Entertainment — 0.8%		
Cinemark Holdings, Inc. (a)	111,619	966,620
DraftKings, Inc. Class A (a) (b)	61,628	701,943
Red Rock Resorts, Inc. Class A	98,064	3,923,541
		<u>5,592,104</u>
Food Services — 0.3%		
Sovos Brands, Inc. (a)	149,563	2,149,220
Home Builders — 1.2%		
Century Communities, Inc.	42,492	2,125,025
Skyline Champion Corp. (a)	84,233	4,338,842
Thor Industries, Inc. (b)	15,168	1,145,032
		<u>7,608,899</u>
Leisure Time — 1.0%		
Acushnet Holdings Corp.	41,614	1,766,931
Planet Fitness, Inc. Class A (a)	38,495	3,033,406
YETI Holdings, Inc. (a)	50,675	2,093,384
		<u>6,893,721</u>
Lodging — 0.4%		
Boyd Gaming Corp.	45,190	2,464,211
Retail — 4.4%		
Academy Sports & Outdoors, Inc.	38,764	2,036,661
BJ's Wholesale Club Holdings, Inc. (a)	14,324	947,676
Boot Barn Holdings, Inc. (a)	39,528	2,471,290
Denny's Corp. (a)	110,546	1,018,129
Freshpet, Inc. (a) (b)	6,400	337,728
Nu Skin Enterprises, Inc. Class A	47,423	1,999,354
Patrick Industries, Inc.	40,884	2,477,570
Rush Enterprises, Inc. Class A	78,878	4,123,742
Texas Roadhouse, Inc.	39,881	3,627,177
Victoria's Secret & Co. (a)	54,644	1,955,162
Wingstop, Inc.	55,519	7,640,525
		<u>28,635,014</u>
		<u>77,617,751</u>
Consumer, Non-cyclical — 29.8%		
Beverages — 1.4%		
Celsius Holdings, Inc. (a)	56,673	5,896,259
MGP Ingredients, Inc. (b)	31,631	3,364,906
		<u>9,261,165</u>
Biotechnology — 7.3%		
Adicet Bio, Inc. (a)	34,568	309,038

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Akero Therapeutics, Inc. (a)	22,450	\$ 1,230,260
Amicus Therapeutics, Inc. (a)	175,376	2,141,341
Apellis Pharmaceuticals, Inc. (a)	30,535	1,578,965
Blueprint Medicines Corp. (a)	23,388	1,024,628
Celldex Therapeutics, Inc. (a)	23,223	1,035,049
Crinetics Pharmaceuticals, Inc. (a)	105,467	1,930,046
Cytokinetics, Inc. (a)	96,015	4,399,407
Halozyme Therapeutics, Inc. (a)	132,461	7,537,031
Immatics NV (a)	172,982	1,506,673
Immunocore Holdings PLC ADR (a)	18,477	1,054,482
Intellia Therapeutics, Inc. (a)	27,546	961,080
Intra-Cellular Therapies, Inc. (a)	72,461	3,834,636
IVERIC bio, Inc. (a)	57,272	1,226,194
Karuna Therapeutics, Inc. (a)	14,288	2,807,592
Kymera Therapeutics, Inc. (a)	53,513	1,335,685
Myriad Genetics, Inc. (a)	96,674	1,402,740
Prothena Corp. PLC (a)	18,676	1,125,229
PTC Therapeutics, Inc. (a)	36,952	1,410,458
Relay Therapeutics, Inc. (a)	60,749	907,590
Revolution Medicines, Inc. (a)	88,292	2,103,115
Rocket Pharmaceuticals, Inc. (a)	92,800	1,816,096
Sage Therapeutics, Inc. (a)	14,384	548,606
Syndax Pharmaceuticals, Inc. (a)	88,842	2,261,029
Veracyte, Inc. (a)	64,192	1,523,276
Zentalis Pharmaceuticals, Inc. (a)	43,427	874,620
		<u>47,884,866</u>
Commercial Services — 5.1%		
AMN Healthcare Services, Inc. (a)	27,011	2,777,271
Cross Country Healthcare, Inc. (a)	95,250	2,530,793
Driven Brands Holdings, Inc. (a)	51,519	1,406,984
H&R Block, Inc.	56,893	2,077,163
HealthEquity, Inc. (a)	71,969	4,436,169
Herc Holdings, Inc.	27,973	3,680,408
Paylocity Holding Corp. (a)	18,289	3,552,821
TriNet Group, Inc. (a)	64,960	4,404,288
WillScot Mobile Mini Holdings Corp. (a)	185,190	8,365,032
		<u>33,230,929</u>
Cosmetics & Personal Care — 1.3%		
elf Beauty, Inc. (a)	155,701	8,610,265
Food — 0.8%		
Performance Food Group Co. (a)	65,277	3,811,524
The Simply Good Foods Co. (a)	43,910	1,669,897
		<u>5,481,421</u>
Health Care – Products — 8.8%		
AtriCure, Inc. (a)	62,196	2,760,259
Axonics Inc. (a)	82,293	5,145,781
Glaukos Corp. (a)	72,555	3,169,202
Globus Medical, Inc. Class A (a)	119,916	8,906,161
Haemonetics Corp. (a)	68,063	5,353,155
ICU Medical, Inc. (a)	11,798	1,857,949
Inari Medical, Inc. (a)	66,248	4,210,723
Inspire Medical Systems, Inc. (a)	45,872	11,554,239

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
iRhythm Technologies, Inc. (a)	14,149	\$ 1,325,337
Lantheus Holdings, Inc. (a)	10,268	523,257
Omnicell, Inc. (a)	32,299	1,628,516
Repligen Corp. (a)	19,800	3,352,338
Shockwave Medical, Inc. (a)	31,709	6,519,688
Silk Road Medical, Inc. (a)	25,573	1,351,533
		<u>57,658,138</u>
Health Care – Services — 3.0%		
Acadia Healthcare Co., Inc. (a)	105,030	8,646,070
Amedisys, Inc. (a)	20,341	1,699,287
Medpace Holdings, Inc. (a)	25,573	5,431,961
Surgery Partners, Inc. (a)	146,401	4,078,732
		<u>19,856,050</u>
Pharmaceuticals — 2.1%		
Aclaris Therapeutics, Inc. (a)	140,417	2,211,568
Ascendis Pharma A/S ADR (a)	5,026	613,825
BellRing Brands, Inc. (a)	81,017	2,077,276
Harmony Biosciences Holdings, Inc. (a)	36,203	1,994,785
Merus NV (a) (b)	39,558	611,962
Option Care Health, Inc. (a)	86,828	2,612,655
Owens & Minor, Inc.	78,331	1,529,805
Revance Therapeutics, Inc. (a)	32,540	600,688
Vaxcyte, Inc. (a)	26,281	1,260,174
Verona Pharma PLC ADR (a) (b)	23,095	603,472
		<u>14,116,210</u>
		<u>196,099,044</u>
Energy — 6.7%		
Energy – Alternate Sources — 0.5%		
Maxeon Solar Technologies Ltd. (a) (b)	36,823	591,377
Shoals Technologies Group, Inc. Class A (a)	115,647	2,853,012
		<u>3,444,389</u>
Oil & Gas — 5.8%		
Chord Energy Corp.	46,180	6,317,886
Magnolia Oil & Gas Corp. Class A	83,014	1,946,678
Matador Resources Co.	112,788	6,455,985
PBF Energy, Inc. Class A	45,074	1,838,118
PDC Energy, Inc.	53,285	3,382,532
Sitio Royalties Corp. Class A (a)	179,085	5,166,613
SM Energy Co.	194,867	6,787,217
Viper Energy Partners LP (c)	202,482	6,436,903
		<u>38,331,932</u>
Oil & Gas Services — 0.2%		
Aris Water Solution, Inc. Class A (b)	72,257	1,041,223
Pipelines — 0.2%		
New Fortress Energy, Inc. (b)	33,204	1,408,514
		<u>44,226,058</u>

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Financial — 12.0%		
Banks — 3.9%		
Ameris Bancorp	120,774	\$ 5,693,286
Atlantic Union Bankshares Corp.	52,297	1,837,717
Cadence Bank	178,820	4,409,701
First Interstate BancSystem, Inc. Class A	62,333	2,409,171
National Bank Holdings Corp. Class A	56,862	2,392,184
Pinnacle Financial Partners, Inc.	26,665	1,957,211
Seacoast Banking Corp. of Florida	78,094	2,435,752
Synovus Financial Corp.	65,320	2,452,766
Wintrust Financial Corp.	25,662	2,168,952
		<u>25,756,740</u>
Diversified Financial Services — 2.6%		
Air Lease Corp.	67,008	2,574,447
Hamilton Lane, Inc. Class A	71,275	4,553,047
Hannon Armstrong Sustainable Infrastructure Capital, Inc. (b)	132,258	3,832,837
PJT Partners, Inc. Class A	25,918	1,909,897
PRA Group, Inc. (a)	64,883	2,191,748
StepStone Group, Inc. Class A	77,316	1,946,817
		<u>17,008,793</u>
Insurance — 2.2%		
Assured Guaranty Ltd.	45,910	2,858,357
The Hanover Insurance Group, Inc.	12,660	1,710,746
Kemper Corp.	40,581	1,996,585
Kinsale Capital Group, Inc.	16,485	4,311,157
MGIC Investment Corp.	152,115	1,977,495
Selective Insurance Group, Inc.	21,964	1,946,230
		<u>14,800,570</u>
Real Estate — 0.3%		
McGrath RentCorp	16,986	1,677,198
Real Estate Investment Trusts (REITS) — 3.0%		
Centerspace	24,227	1,421,398
Douglas Emmett, Inc.	97,954	1,535,919
Essential Properties Realty Trust, Inc.	91,186	2,140,135
National Storage Affiliates Trust	45,463	1,642,124
Outfront Media, Inc.	78,273	1,297,766
Phillips Edison & Co., Inc.	153,439	4,885,498
PotlatchDeltic Corp.	52,582	2,313,082
Ryman Hospitality Properties, Inc.	36,514	2,986,115
Xenia Hotels & Resorts, Inc.	133,852	1,764,169
		<u>19,986,206</u>
		<u>79,229,507</u>
Industrial — 16.5%		
Aerospace & Defense — 1.8%		
Curtiss-Wright Corp.	47,946	8,006,502
Leonardo DRS, Inc. (a)	26,493	338,581
Mercury Systems, Inc. (a)	37,791	1,690,769

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Spirit AeroSystems Holdings, Inc. Class A	67,676	\$ 2,003,210
		<u>12,039,062</u>
Building Materials — 0.6%		
The AZEK Co., Inc (a)	118,567	2,409,282
Louisiana-Pacific Corp.	27,292	1,615,686
		<u>4,024,968</u>
Electrical Components & Equipment — 1.6%		
Acuity Brands, Inc.	19,393	3,211,675
Novanta, Inc. (a)	52,065	7,074,071
		<u>10,285,746</u>
Engineering & Construction — 2.1%		
Comfort Systems USA, Inc.	49,325	5,676,321
Fluor Corp. (a)	229,718	7,962,026
		<u>13,638,347</u>
Environmental Controls — 3.1%		
Casella Waste Systems, Inc. Class A (a)	124,118	9,843,798
Clean Harbors, Inc. (a)	52,384	5,978,062
Evoqua Water Technologies Corp. (a)	109,656	4,342,378
		<u>20,164,238</u>
Hand & Machine Tools — 0.5%		
Kennametal, Inc.	80,244	1,930,671
Regal Rexnord Corp.	12,153	1,458,117
		<u>3,388,788</u>
Machinery – Diversified — 3.3%		
Albany International Corp. Class A	17,687	1,743,761
Applied Industrial Technologies, Inc.	45,339	5,714,074
Cactus, Inc. Class A	65,399	3,286,954
Chart Industries, Inc. (a)	23,781	2,740,285
Enovis Corp. (a)	19,129	1,023,784
Flowserve Corp.	66,264	2,032,979
The Middleby Corp. (a)	13,954	1,868,441
Zurn Elkay Water Solutions Corp.	160,093	3,385,967
		<u>21,796,245</u>
Metal Fabricate & Hardware — 1.7%		
Advanced Drainage Systems, Inc.	19,807	1,623,580
Helios Technologies, Inc.	35,363	1,925,162
RBC Bearings, Inc. (a)	9,310	1,949,048
Valmont Industries, Inc.	16,176	5,348,918
		<u>10,846,708</u>
Packaging & Containers — 0.8%		
Graphic Packaging Holding Co.	243,059	5,408,063
Transportation — 0.7%		
Kirby Corp. (a)	34,649	2,229,663
RXO, Inc. (a)	21,100	362,920

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Saia, Inc. (a)	10,188	\$ 2,136,220
		<u>4,728,803</u>
Trucking & Leasing — 0.3%		
GATX Corp.	21,084	2,242,072
		<u>108,563,040</u>
Technology — 14.0%		
Computers — 3.3%		
CyberArk Software Ltd. (a)	27,673	3,587,805
Exlservice Holdings, Inc. (a)	50,822	8,610,772
Globant SA (a)	14,093	2,369,879
KBR, Inc.	49,364	2,606,419
Rapid7, Inc. (a)	37,080	1,259,978
WNS Holdings Ltd. ADR (a)	38,268	3,061,057
		<u>21,495,910</u>
Semiconductors — 4.1%		
Axcelis Technologies, Inc. (a)	4,295	340,851
Cirrus Logic, Inc. (a)	26,922	2,005,151
FormFactor, Inc. (a)	56,662	1,259,596
Impinj, Inc. (a)	52,751	5,759,354
Lattice Semiconductor Corp. (a)	105,281	6,830,631
MACOM Technology Solutions Holdings, Inc. (a)	42,529	2,678,476
MKS Instruments, Inc.	15,274	1,294,166
Power Integrations, Inc.	32,109	2,302,858
Synaptics, Inc. (a)	27,929	2,657,724
Tower Semiconductor Ltd. (a)	36,751	1,587,643
		<u>26,716,450</u>
Software — 6.6%		
Box, Inc. Class A (a)	74,089	2,306,391
Confluent, Inc. Class A (a)	40,922	910,105
DoubleVerify Holdings, Inc. (a)	60,513	1,328,865
Doximity, Inc. Class A (a) (b)	31,586	1,060,026
Duolingo, Inc. (a)	24,007	1,707,618
Evolent Health, Inc. Class A (a)	74,855	2,101,928
Five9, Inc. (a)	31,674	2,149,398
Gitlab, Inc. Class A (a) (b)	26,191	1,190,119
HashiCorp, Inc. Class A (a) (b)	26,161	715,242
Jamf Holding Corp. (a) (b)	228,502	4,867,093
Manhattan Associates, Inc. (a)	68,391	8,302,667
New Relic, Inc. (a)	33,793	1,907,615
PowerSchool Holdings, Inc. Class A (a)	127,761	2,948,724
Privia Health Group, Inc. (a)	62,205	1,412,676
RingCentral, Inc. Class A (a)	69,324	2,454,070
Samsara, Inc. Class A (a)	75,329	936,339
Sprout Social, Inc. Class A (a)	59,202	3,342,545
Verra Mobility Corp. (a)	290,721	4,020,671
		<u>43,662,092</u>
		<u>91,874,452</u>

MassMutual Small Cap Growth Equity Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Utilities — 1.3%		
Electric — 1.0%		
Ameresco, Inc. Class A (a)	33,666	\$ 1,923,675
Atlantica Sustainable Infrastructure PLC	74,412	1,927,271
Portland General Electric Co. (b)	52,928	2,593,472
		<u>6,444,418</u>
Gas — 0.3%		
ONE Gas, Inc.	24,461	1,852,187
		<u>8,296,605</u>
TOTAL COMMON STOCK (Cost \$643,658,397)		<u>641,949,195</u>
TOTAL EQUITIES (Cost \$643,658,397)		<u>641,949,195</u>
MUTUAL FUNDS — 3.3%		
Diversified Financial Services — 3.3%		
iShares Russell 2000 ETF (b)	34,003	5,928,763
iShares Russell 2000 Growth ETF (b)	17,542	3,763,110
State Street Navigator Securities Lending Government Money Market Portfolio (d)	11,958,384	11,958,384
		<u>21,650,257</u>
TOTAL MUTUAL FUNDS (Cost \$21,740,197)		<u>21,650,257</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$665,398,594)		<u>663,599,452</u>
	Principal Amount	
SHORT-TERM INVESTMENTS — 3.0%		
Repurchase Agreement — 3.0%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (e)	\$ 19,321,865	<u>19,321,865</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$19,321,865)		<u>19,321,865</u>
TOTAL INVESTMENTS — 103.9% (Cost \$684,720,459) (f)		682,921,317
Other Assets/(Liabilities) — (3.9)%		<u>(25,389,848)</u>
NET ASSETS — 100.0%		<u>\$ 657,531,469</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$20,769,380 or

3.16% of net assets. The Fund received \$9,301,307 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (*Note 2*).

- (c) Security is a Master Limited Partnership.
- (d) Represents investment of security lending cash collateral. (*Note 2*).
- (e) Maturity value of \$19,324,613. Collateralized by U.S. Government Agency obligations with a rate of 0.000% - 3.000%, maturity date of 6/29/23 - 6/30/24 , and an aggregate market value, including accrued interest, of \$19,708,308.
- (f) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Overseas Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 99.3%		
COMMON STOCK — 98.8%		
Australia — 0.3%		
Orica Ltd.	117,229	\$ 1,197,904
Belgium — 1.1%		
Anheuser-Busch InBev SA	49,100	2,951,803
KBC Group NV	31,641	2,031,582
		<u>4,983,385</u>
Canada — 3.3%		
Canadian National Railway Co.	38,788	4,611,117
Intact Financial Corp.	15,972	2,299,190
Open Text Corp. (a)	88,600	2,625,282
Restaurant Brands International, Inc.	9,800	633,766
Suncor Energy, Inc.	61,110	1,938,460
The Toronto-Dominion Bank	46,545	3,013,737
		<u>15,121,552</u>
Cayman Islands — 2.1%		
Alibaba Group Holding Ltd. (b)	292,040	3,224,462
NetEase, Inc.	135,100	1,969,291
Tencent Holdings Ltd.	69,900	2,970,904
Vipshop Holdings Ltd. ADR (b)	110,904	1,512,730
		<u>9,677,387</u>
Denmark — 2.7%		
Carlsberg A/S Class B	19,621	2,597,359
DSV A/S	11,555	1,832,694
Novo Nordisk A/S Class B	56,116	7,598,104
		<u>12,028,157</u>
France — 17.8%		
Accor SA (b)	122,455	3,042,453
Air Liquide SA	56,478	8,033,391
BNP Paribas SA	98,431	5,601,445
Capgemini SE	50,073	8,397,936
Cie de Saint-Gobain	54,756	2,688,179
Cie Generale des Etablissements Michelin SCA	72,114	2,005,266
Danone SA	31,300	1,649,006
Dassault Systemes SE	45,336	1,635,137
Edenred	24,600	1,338,588
Engie SA	285,000	4,082,351
EssilorLuxottica SA	28,447	5,180,088
Kering SA	4,825	2,469,350
L'Oreal SA	6,412	2,300,259
Legrand SA	32,193	2,592,098
LVMH Moet Hennessy Louis Vuitton SE	10,358	7,524,516
Pernod Ricard SA	26,625	5,233,399

MassMutual Overseas Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Publicis Groupe SA (b)	39,569	\$ 2,512,665
Schneider Electric SE	64,537	9,076,447
Valeo	127,630	2,274,978
Worldline SA (b) (c)	80,500	3,141,138
		<u>80,778,690</u>
Germany — 15.8%		
adidas AG	26,745	3,650,964
Allianz SE Registered	19,910	4,281,172
Bayer AG Registered	151,608	7,827,897
Bayerische Motoren Werke AG	45,285	4,041,920
Beiersdorf AG	45,493	5,220,395
Continental AG	66,380	3,965,933
Daimler Truck Holding AG (b)	103,061	3,193,166
Deutsche Boerse AG	32,996	5,693,155
Fresenius Medical Care AG & Co. KGaA	53,721	1,757,115
Fresenius SE & Co. KGaA	130,700	3,677,228
Henkel AG & Co. KGaA	33,400	2,154,121
Mercedes-Benz Group AG	69,773	4,578,750
Merck KGaA	31,046	6,012,374
MTU Aero Engines AG	8,812	1,907,272
SAP SE	84,372	8,707,140
Siemens AG Registered	24,600	3,414,299
thyssenkrupp AG (b)	253,088	1,544,354
		<u>71,627,255</u>
Hong Kong — 1.6%		
AIA Group Ltd.	650,200	<u>7,163,256</u>
India — 1.6%		
Axis Bank Ltd.	64,605	727,045
HDFC Bank Ltd.	102,752	2,025,005
Housing Development Finance Corp. Ltd.	75,922	2,421,455
Tata Consultancy Services Ltd.	54,433	2,141,941
		<u>7,315,446</u>
Ireland — 2.3%		
Linde PLC (b)	12,906	4,219,889
Ryanair Holdings PLC Sponsored ADR (b)	80,041	5,983,865
		<u>10,203,754</u>
Israel — 0.9%		
Check Point Software Technologies Ltd. (b)	32,834	<u>4,142,338</u>
Italy — 2.7%		
Eni SpA	247,498	3,535,321
Intesa Sanpaolo SpA	3,833,776	8,553,112
		<u>12,088,433</u>
Japan — 9.7%		
Daikin Industries Ltd.	28,100	4,322,610
Denso Corp.	55,200	2,705,992
Fujitsu Ltd.	8,600	1,138,881
Hitachi Ltd.	124,200	6,250,346
Hoya Corp.	32,500	3,144,544

MassMutual Overseas Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Koito Manufacturing Co. Ltd.	120,700	\$ 1,797,920
Komatsu Ltd.	70,100	1,520,832
Kose Corp.	27,800	3,020,138
Kubota Corp.	144,800	1,994,669
Kyocera Corp.	68,300	3,408,466
Olympus Corp.	180,500	3,190,464
Shin-Etsu Chemical Co. Ltd.	12,300	1,498,576
SMC Corp.	6,800	2,877,961
Sony Group Corp.	51,300	3,911,928
Terumo Corp.	108,400	3,065,427
		<u>43,848,754</u>
Mexico — 0.1%		
Grupo Televisa SAB Sponsored ADR	90,349	<u>411,991</u>
Netherlands — 5.7%		
Akzo Nobel NV	69,611	4,644,866
CNH Industrial NV	232,097	3,727,514
EXOR NV (b)	44,600	3,255,666
ING Groep NV (b)	325,325	3,969,098
Koninklijke Philips NV	72,570	1,089,220
Prosus NV (b)	60,823	4,175,831
QIAGEN NV (b)	56,320	2,834,502
Randstad NV	36,392	2,222,344
		<u>25,919,041</u>
Portugal — 0.5%		
Galp Energia SGPS SA	178,822	<u>2,419,721</u>
Republic of Korea — 0.7%		
NAVER Corp.	20,565	<u>2,920,822</u>
Singapore — 0.9%		
DBS Group Holdings, Ltd.	162,600	<u>4,116,449</u>
Spain — 0.9%		
Amadeus IT Group SA (b)	82,280	<u>4,243,183</u>
Sweden — 1.1%		
Sandvik AB	32,200	581,378
SKF AB Class B	147,700	2,260,281
Volvo AB Class B	119,200	2,158,314
		<u>4,999,973</u>
Switzerland — 12.9%		
Cie Financiere Richemont SA Registered	52,545	6,799,619
Credit Suisse Group AG Registered (b)	531,092	1,595,646
Holcim AG (b)	59,184	3,051,952
Julius Baer Group Ltd. (b)	41,119	2,390,082
Nestle SA Registered	93,514	10,799,510
Novartis AG Registered	71,748	6,499,028
Roche Holding AG	31,060	9,760,973
Schindler Holding AG	5,120	961,377
Sika AG Registered	10,719	2,586,381
Sonova Holding AG Registered	5,799	1,379,797
The Swatch Group AG	5,075	1,440,771
UBS Group AG Registered	341,611	6,367,487

MassMutual Overseas Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Zurich Insurance Group AG	10,297	\$ 4,920,682
		<u>58,553,305</u>
Taiwan — 0.7%		
Taiwan Semiconductor Manufacturing Co. Ltd. Sponsored ADR	43,781	<u>3,261,247</u>
United Kingdom — 12.9%		
Ashtead Group PLC	29,900	1,708,088
Compass Group PLC	294,101	6,795,777
Diageo PLC	107,996	4,769,026
Experian PLC	139,866	4,761,539
Glencore PLC (b)	394,100	2,635,258
Informa PLC	201,300	1,509,211
Liberty Global PLC Class A (b)	108,300	2,050,119
Lloyds Banking Group PLC	8,154,397	4,477,848
London Stock Exchange Group PLC	29,483	2,543,913
Prudential PLC	428,293	5,795,932
Reckitt Benckiser Group PLC	48,581	3,379,733
RELX PLC	172,378	4,775,867
Rio Tinto PLC	43,911	3,081,069
Rolls-Royce Holdings PLC (b)	1,795,210	2,009,900
Schroders PLC	520,264	2,734,859
Smiths Group PLC	39,056	752,977
Tesco PLC	913,539	2,476,846
WPP PLC	222,444	2,208,390
		<u>58,466,352</u>
United States — 0.5%		
Yum China Holdings, Inc.	39,789	<u>2,174,469</u>
TOTAL COMMON STOCK (Cost \$425,753,799)		<u>447,662,864</u>
PREFERRED STOCK — 0.5%		
Republic of Korea — 0.5%		
Samsung Electronics Co. Ltd. 1.760%	52,500	<u>2,112,487</u>
TOTAL PREFERRED STOCK (Cost \$2,997,578)		<u>2,112,487</u>
TOTAL EQUITIES (Cost \$428,751,377)		<u>449,775,351</u>
MUTUAL FUNDS — 0.1%		
United States — 0.1%		
State Street Navigator Securities Lending Government Money Market Portfolio (d)	386,416	<u>386,416</u>
TOTAL MUTUAL FUNDS (Cost \$386,416)		<u>386,416</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$429,137,793)		<u>450,161,767</u>

MassMutual Overseas Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
SHORT-TERM INVESTMENTS — 0.6%		
Repurchase Agreement — 0.6%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (e)	\$ 2,964,141	\$ <u>2,964,141</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$2,964,141)		<u>2,964,141</u>
TOTAL INVESTMENTS — 100.0% (Cost \$432,101,934) (f)		453,125,908
Other Assets/(Liabilities) — (0.0)%		<u>(171,632)</u>
NET ASSETS — 100.0%		<u>\$ 452,954,276</u>

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$367,732 or 0.08% of net assets. (Note 2).
- (b) Non-income producing security.
- (c) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$3,141,138 or 0.69% of net assets.
- (d) Represents investment of security lending cash collateral. (Note 2).
- (e) Maturity value of \$2,964,563. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$3,023,495.
- (f) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 98.9%		
COMMON STOCK — 98.2%		
Australia — 2.7%		
ANZ Group Holdings Ltd.	124,850	\$ 2,011,198
BHP Group Ltd.	229,717	7,083,053
BHP Group Ltd.	123,525	3,824,485
Challenger Ltd.	203,981	1,057,328
Downer EDI Ltd.	608,214	1,520,138
IGO Ltd.	598,148	5,436,186
Macquarie Group Ltd.	19,290	2,189,902
Rio Tinto Ltd.	13,665	1,076,942
Scentre Group	884,324	1,719,531
South32 Ltd.	1,848,124	5,002,721
Suncorp Group Ltd.	227,253	1,863,508
Woodside Energy Group Ltd.	19,231	464,106
Worley Ltd.	535,230	5,470,402
		<u>38,719,500</u>
Austria — 0.5%		
BAWAG Group AG (a) (b)	63,163	3,358,420
Erste Group Bank AG	105,757	3,372,337
		<u>6,730,757</u>
Belgium — 0.3%		
KBC Group NV	32,966	2,116,657
Umicore SA	55,767	2,057,416
		<u>4,174,073</u>
Bermuda — 0.3%		
China Resources Gas Group Ltd.	640,500	2,385,391
Credicorp Ltd.	4,511	611,962
Hongkong Land Holdings Ltd.	309,100	1,417,570
		<u>4,414,923</u>
Brazil — 1.3%		
Ambev SA	815,200	2,241,570
B3 SA - Brasil Bolsa Balcao	982,100	2,455,838
Banco BTG Pactual SA	458,700	2,078,085
EDP - Energias do Brasil SA	234,707	924,466
Klabin SA	403,000	1,523,967
Localiza Rent a Car SA	203,114	2,045,574
Multiplan Empreendimentos Imobiliarios SA	392,300	1,628,988
Raia Drogasil SA	739,788	3,325,882
Suzano SA	222,127	2,061,695
WEG SA	129,200	941,006
		<u>19,227,071</u>

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Canada — 4.2%		
BRP, Inc.	15,174	\$ 1,156,877
Canadian Pacific Railway Ltd.	80,794	6,026,425
Constellation Software, Inc.	2,491	3,889,124
Definity Financial Corp.	108,703	3,089,285
The Descartes Systems Group, Inc. (b)	17,908	1,247,292
Element Fleet Management Corp. (c)	278,000	3,788,109
Magna International, Inc. (c)	79,328	4,456,647
Manulife Financial Corp.	288,869	5,152,279
National Bank of Canada (c)	138,749	9,348,649
Shopify, Inc. Class A (b)	41,760	1,449,490
Sun Life Financial, Inc.	149,564	6,942,465
Suncor Energy, Inc.	79,400	2,518,634
TC Energy Corp. (c)	44,072	1,757,021
TELUS International CDA, Inc. (b)	67,209	1,326,807
TMX Group Ltd.	58,854	5,890,616
Waste Connections, Inc.	18,734	2,483,379
		<u>60,523,099</u>
Cayman Islands — 5.6%		
Alibaba Group Holding Ltd. (b)	600,080	6,625,582
Alibaba Group Holding Ltd. Sponsored ADR (b)	81,901	7,214,659
Baidu, Inc. Class A (b)	248,000	3,564,584
Baidu, Inc. Sponsored ADR (b)	17,325	1,981,633
Bizlink Holding, Inc.	197,000	1,514,765
Budweiser Brewing Co. APAC Ltd. (a)	1,014,200	3,190,497
Chailease Holding Co. Ltd.	163,000	1,149,790
China Resources Mixc Lifestyle Services Ltd. (a)	158,600	805,770
CK Hutchison Holdings Ltd.	283,000	1,698,943
ENN Energy Holdings Ltd.	55,800	778,456
JD Health International, Inc. (a) (b)	272,950	2,496,192
JD.com, Inc. Class A	49,050	1,378,812
JOYY, Inc. ADR	64,674	2,043,052
KE Holdings, Inc. ADR (b)	238,702	3,332,280
Kingdee International Software Group Co. Ltd. (b)	307,000	653,543
Li Auto, Inc. ADR (b)	24,600	501,840
Li Auto, Inc. Class A (b)	5,200	53,026
Li Ning Co. Ltd.	186,500	1,600,403
Longfor Group Holdings Ltd. (a)	533,759	1,635,801
Meituan Class B (a) (b)	138,100	3,053,582
Pinduoduo, Inc. ADR (b)	13,400	1,092,770
Sea Ltd. ADR (b)	50,839	2,645,153
Silergy Corp.	133,000	1,885,976
Sunny Optical Technology Group Co. Ltd.	34,400	409,372
Tencent Holdings Ltd.	306,900	13,043,927
Tingyi Cayman Islands Holding Corp.	1,012,000	1,782,323
Tongcheng Travel Holdings Ltd. (b)	1,287,600	3,098,823
Trip.com Group Ltd. (b)	91,150	3,167,760
Trip.com Group Ltd. ADR (b)	71,641	2,464,450
Wuxi Biologics Cayman, Inc. (a) (b)	54,500	418,400
XP, Inc. Class A (b)	165,468	2,538,279
Zhongsheng Group Holdings Ltd.	784,000	3,996,215
		<u>81,816,658</u>
Chile — 0.2%		
Banco de Chile	26,662,663	2,766,065

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Banco Santander Chile Sponsored ADR	47,004	\$ 744,543
		<u>3,510,608</u>
China — 3.4%		
Beijing Capital International Airport Co. Ltd. Class H (b)	2,194,000	1,605,169
Chacha Food Co. Ltd. Class A	117,700	846,734
China Construction Bank Corp. Class H	3,965,000	2,484,309
China Oilfield Services Ltd. Class A	890,600	2,128,214
Foshan Haitian Flavouring & Food Co. Ltd. Class A	88,500	1,013,121
Fuyao Glass Industry Group Co. Ltd. Class A	768,600	3,878,363
Glodon Co. Ltd. Class A	92,300	796,206
Hisense Home Appliances Group Co. Ltd. Class A	64,155	121,580
Hongfa Technology Co. Ltd. Class A	140,420	675,104
Huayu Automotive Systems Co. Ltd. Class A	344,100	858,033
Hundsun Technologies, Inc. Class A	320,900	1,868,302
Inner Mongolia Yili Industrial Group Co. Ltd. Class A	835,300	3,714,257
Kweichow Moutai Co. Ltd. Class A	12,098	2,993,715
NARI Technology Co. Ltd. Class A	1,247,538	4,363,024
Nongfu Spring Co. Ltd. Class H (a)	78,000	440,776
PICC Property & Casualty Co. Ltd. Class H	2,008,000	1,900,627
Ping An Insurance Group Co. of China Ltd. Class H	348,000	2,296,867
Pony Testing International Group Co. Ltd. Class A	113,931	532,168
Sangfor Technologies, Inc. Class A	18,700	302,854
Shandong Pharmaceutical Glass Co. Ltd. Class A	314,700	1,283,111
Shandong Weigao Group Medical Polymer Co. Ltd. Class H	817,600	1,339,101
Shenzhen Inovance Technology Co. Ltd. Class A	357,700	3,577,488
Songcheng Performance Development Co. Ltd. Class A	868,400	1,824,603
Tsingtao Brewery Co. Ltd. Class H	338,000	3,339,378
Weichai Power Co. Ltd. Class A	1,495,100	2,188,855
Yifeng Pharmacy Chain Co. Ltd. Class A	228,016	2,094,605
Zhejiang Sanhua Intelligent Controls Co. Ltd. Class A	267,500	814,897
		<u>49,281,461</u>
Cyprus — 0.0%		
Ozon Holdings PLC (b) (d) (e)	18,310	—
TCS Group Holding, PLC (b) (d) (e)	10,848	—
		<u>—</u>
Denmark — 0.4%		
Carlsberg A/S Class B	17,237	2,281,774
Genmab A/S (b)	8,358	3,540,261
		<u>5,822,035</u>
Finland — 0.9%		
Kojamo OYJ	48,463	718,006
Metso Outotec OYJ	126,296	1,302,982
Sampo OYJ Class A	168,612	8,816,434
Stora Enso OYJ Class R	164,709	2,326,937
		<u>13,164,359</u>
France — 8.0%		
Air Liquide SA	22,644	3,220,867
Alstom SA (c)	84,796	2,081,942
AXA SA	476,166	13,271,094
BNP Paribas SA	125,309	7,131,000

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Capgemini SE	20,967	\$ 3,516,456
Dassault Aviation SA	52,056	8,832,284
Engie SA	602,800	8,634,531
EssilorLuxottica SA	48,056	8,750,811
Faurecia SE (b)	69,487	1,057,722
Ipsen SA	7,577	816,563
Kering SA	11,783	6,030,333
L'Oreal SA	11,040	3,960,521
Legrand SA	36,870	2,968,678
LVMH Moet Hennessy Louis Vuitton SE	2,253	1,636,680
Safran SA	44,185	5,521,500
Sanofi	145,178	14,047,514
Teleperformance	18,996	4,532,918
Thales SA	29,869	3,818,346
TotalEnergies SE	250,985	15,665,267
		<u>115,495,027</u>
Germany — 5.6%		
BASF SE	43,193	2,144,282
Bayer AG Registered	173,809	8,974,189
Brenntag SE	22,118	1,414,131
Covestro AG (a)	110,628	4,328,118
Daimler Truck Holding AG (b)	117,173	3,630,402
Deutsche Boerse AG	11,450	1,975,592
Deutsche Post AG Registered	66,069	2,486,959
Deutsche Telekom AG Registered	462,877	9,232,761
Evotec SE (b)	174,246	2,844,033
Fresenius SE & Co. KGaA	145,833	4,102,993
GEA Group AG	42,231	1,725,064
HeidelbergCement AG	25,120	1,432,677
Infineon Technologies AG	47,514	1,447,166
KION Group AG	43,577	1,246,963
Mercedes-Benz Group AG Registered	38,948	2,555,905
Muenchener Rueckversicherungs-Gesellschaft AG in Muenchen Registered	19,768	6,427,838
SAP SE	40,141	4,142,527
Siemens AG Registered	105,385	14,626,662
Siemens Healthineers AG (a)	65,775	3,290,457
Stroeer SE & Co KGaA	17,577	817,871
Vonovia SE	29,809	702,520
Zalando SE (a) (b)	47,146	1,671,375
		<u>81,220,485</u>
Hong Kong — 1.8%		
AIA Group Ltd.	1,286,000	14,167,867
Beijing Enterprises Holdings Ltd.	261,500	837,646
China Overseas Land & Investment Ltd.	909,000	2,399,422
Fosun International Ltd.	1,317,000	1,073,207
Galaxy Entertainment Group Ltd.	731,000	4,840,318
Guangdong Investment Ltd.	1,834,000	1,877,580
Hong Kong Exchanges & Clearing Ltd.	29,200	1,261,882
		<u>26,457,922</u>
Hungary — 0.3%		
OTP Bank Nyrt	175,123	4,735,162

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
India — 4.7%		
Ashok Leyland Ltd.	433,140	\$ 750,982
Asian Paints Ltd.	20,825	777,230
Axis Bank Ltd.	548,870	6,176,816
HDFC Asset Management Co. Ltd. (a)	26,794	703,318
HDFC Bank Ltd.	114,335	2,253,279
HDFC Life Insurance Co. Ltd. (a)	496,994	3,392,702
Hindalco Industries Ltd.	334,134	1,903,063
Hindustan Unilever Ltd.	28,483	880,543
Housing Development Finance Corp. Ltd.	325,670	10,386,913
ICICI Bank Ltd.	324,482	3,486,158
ICICI Bank Ltd. Sponsored ADR	104,073	2,278,158
Indus Towers Ltd.	549,104	1,264,114
Infosys Ltd.	124,352	2,253,373
Kotak Mahindra Bank Ltd.	211,585	4,652,138
Larsen & Toubro Ltd.	87,206	2,193,501
Maruti Suzuki India Ltd.	9,111	923,492
NTPC Ltd.	2,750,137	5,531,456
Petronet LNG Ltd.	1,244,771	3,235,423
Reliance Industries Ltd.	167,493	5,137,634
Shree Cement Ltd.	5,450	1,528,573
Shriram Finance Ltd.	227,337	3,788,058
Tata Consultancy Services Ltd.	11,420	449,378
Tech Mahindra Ltd.	134,326	1,639,728
Voltas Ltd.	206,616	1,990,890
		<u>67,576,920</u>
Indonesia — 0.7%		
Bank Central Asia Tbk PT	8,452,600	4,634,139
Bank Rakyat Indonesia Persero Tbk PT	11,581,564	3,671,484
Sarana Menara Nusantara Tbk PT	24,941,000	1,760,432
Sumber Alfaria Trijaya Tbk PT	1,778,900	302,829
		<u>10,368,884</u>
Ireland — 0.6%		
DCC PLC	34,137	1,685,219
Kerry Group PLC Class A	6,442	583,319
Kerry Group PLC Class A	8,123	732,998
Linde PLC (b)	16,214	5,301,509
		<u>8,303,045</u>
Italy — 1.7%		
Amplifon SpA	46,063	1,376,040
Banca Mediolanum SpA	355,710	2,971,637
DiaSorin SpA	15,908	2,229,155
Enel SpA	702,675	3,779,188
Ermenegildo Zegna NV	104,719	1,096,408
Intesa Sanpaolo SpA	640,689	1,429,370
Leonardo SpA	209,300	1,804,153
Moncler SpA	44,712	2,380,050
Prysmian SpA	145,437	5,383,949
UniCredit SpA	187,315	2,663,665
		<u>25,113,615</u>

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Japan — 13.9%		
Asahi Group Holdings Ltd. (c)	85,900	\$ 2,674,719
Asahi Kasei Corp.	251,200	1,785,027
Asics Corp.	74,500	1,653,227
Astellas Pharma, Inc.	564,100	8,558,012
Central Japan Railway Co.	13,900	1,710,013
Chugai Pharmaceutical Co. Ltd.	126,100	3,204,217
CyberAgent, Inc.	199,400	1,773,581
Daiichi Sankyo Co. Ltd.	106,400	3,409,858
Daikin Industries Ltd.	11,900	1,830,571
Denso Corp.	43,400	2,127,537
DIC Corp. (c)	59,500	1,044,776
Disco Corp.	7,200	2,069,768
Electric Power Development Co. Ltd.	97,900	1,557,381
Fujitsu General Ltd.	62,600	1,509,227
Fujitsu Ltd.	28,100	3,721,228
Hamamatsu Photonics KK	41,000	1,972,264
Hikari Tsushin, Inc.	10,400	1,463,030
Hitachi Ltd.	93,100	4,685,243
Honda Motor Co. Ltd.	37,800	864,265
Isetan Mitsukoshi Holdings Ltd.	97,800	1,066,677
Keyence Corp.	8,200	3,210,339
Kirin Holdings Co. Ltd. (c)	95,500	1,463,086
MatsukiyoCocokara & Co.	60,100	3,021,728
Mitsubishi Corp.	69,300	2,241,975
Mitsubishi Electric Corp.	516,200	5,109,910
Mitsubishi Estate Co. Ltd.	151,300	1,957,927
Mitsubishi HC Capital, Inc.	242,200	1,193,146
Mitsubishi UFJ Financial Group, Inc.	984,500	6,641,466
Mitsui Fudosan Co. Ltd.	312,800	5,714,524
Murata Manufacturing Co. Ltd.	99,200	4,976,794
Nextage Co. Ltd.	6,800	131,202
Nippon Sanso Holdings Corp.	82,100	1,182,559
Nippon Shokubai Co. Ltd.	25,500	1,017,968
Nippon Steel Corp.	96,100	1,673,193
Nippon Telegraph & Telephone Corp.	660,100	18,841,944
NTT Data Corp.	288,400	4,243,644
Olympus Corp.	138,700	2,451,620
Omron Corp.	20,300	990,101
ORIX Corp.	169,200	2,728,318
Otsuka Holdings Co. Ltd.	225,900	7,354,413
Outsourcing, Inc.	171,200	1,235,950
Pan Pacific International Holding Corp.	70,500	1,308,726
Panasonic Holdings Corp.	250,000	2,093,564
Persol Holdings Co. Ltd.	173,000	3,673,960
Recruit Holdings Co. Ltd.	77,200	2,455,258
Renesas Electronics Corp. (b)	122,000	1,102,576
Seven & i Holdings Co. Ltd.	200,800	8,589,897
Shimadzu Corp.	62,500	1,782,645
SMC Corp.	2,300	973,428
SoftBank Group Corp.	29,000	1,228,094
Sompo Holdings, Inc.	56,800	2,522,077
Sony Group Corp.	78,600	5,993,714
Stanley Electric Co. Ltd.	196,500	3,734,876

Sumitomo Corp.	295,400	4,898,360
Sumitomo Mitsui Trust Holdings, Inc.	46,200	1,612,030
Sumitomo Rubber Industries Ltd. (c)	66,600	584,390
Suzuki Motor Corp.	113,200	3,642,001

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Taiheiyo Cement Corp.	76,900	\$ 1,195,918
Takeda Pharmaceutical Co. Ltd.	69,600	2,173,894
TechnoPro Holdings, Inc.	91,400	2,416,412
THK Co. Ltd.	43,300	817,871
Tokio Marine Holdings, Inc.	198,300	4,244,923
Tokyo Electron Ltd.	15,600	4,634,190
Tosoh Corp.	21,300	252,731
Toyota Motor Corp.	665,900	9,100,948
Welcia Holdings Co. Ltd.	36,300	845,558
Z Holdings Corp.	1,461,700	3,695,298
		<u>201,635,767</u>
Luxembourg — 0.3%		
Millicom International Cellular SA (b) (c)	91,997	1,163,286
Samsonite International SA (a) (b)	496,500	1,298,275
Tenaris SA	139,547	2,448,983
		<u>4,910,544</u>
Malaysia — 0.2%		
CIMB Group Holdings Bhd	2,783,296	3,666,231
Mexico — 0.8%		
Gruma SAB de CV Class B	213,505	2,852,211
Grupo Aeroportuario del Pacifico SAB de CV ADR	14,865	2,137,736
Grupo Financiero Banorte SAB de CV Class O	137,500	989,557
Grupo Mexico SAB de CV Series B	860,182	3,032,587
Orbia Advance Corp. SAB de CV	456,479	809,347
Wal-Mart de Mexico SAB de CV	643,900	2,276,029
		<u>12,097,467</u>
Netherlands — 5.9%		
Adyen NV (a) (b)	1,644	2,274,994
AerCap Holdings NV (b)	51,209	2,986,509
Airbus SE	39,162	4,656,451
Akzo Nobel NV	146,457	9,772,495
ASML Holding NV	35,650	19,297,450
Heineken NV	15,313	1,438,680
ING Groep NV (b)	1,095,394	13,364,254
Koninklijke DSM NV	9,957	1,220,683
Koninklijke Philips NV	470,364	7,059,805
NXP Semiconductor NV	31,803	5,025,828
Prosus NV (b)	172,663	11,854,256
Prosus NV (b)	26,947	1,851,891
Signify NV (a)	59,799	2,013,268
Stellantis NV	155,135	2,199,295
X5 Retail Group NV (d) (e)	53,349	—
Yandex N.V. (b) (d) (e)	66,647	—
		<u>85,015,859</u>
Norway — 1.0%		
DNB Bank ASA	241,159	4,774,500
Equinor ASA	179,775	6,448,240
Storebrand ASA	313,171	2,719,295
		<u>13,942,035</u>

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Philippines — 0.3%		
Bank of the Philippine Islands	101,980	\$ 186,763
BDO Unibank, Inc.	225,174	425,082
Jollibee Foods Corp.	1,170	4,839
SM Investments Corp.	180,980	2,935,843
Universal Robina Corp.	328,140	802,630
		<u>4,355,157</u>
Poland — 0.3%		
Powszechna Kasa Oszczednosci Bank Polski SA	156,192	1,083,254
Powszechny Zaklad Ubezpieczen SA	334,281	2,707,705
		<u>3,790,959</u>
Portugal — 0.6%		
Banco Comercial Portugues SA	4,512,532	710,055
Galp Energia SGPS SA	436,805	5,910,606
Jeronimo Martins SGPS SA	82,866	1,791,809
		<u>8,412,470</u>
Republic of Korea — 3.6%		
Amorepacific Corp.	8,890	974,845
CJ CheilJedang Corp.	6,000	1,810,786
Hyundai Motor Co.	18,731	2,251,266
Kangwon Land, Inc. (b)	117,600	2,168,381
KT Corp. (b)	116,648	3,126,406
KT Corp. Sponsored ADR (b) (c)	149,163	2,013,701
LG Chem Ltd.	4,712	2,254,082
LG H&H Co. Ltd.	2,464	1,417,791
Lotte Chemical Corp.	17,497	2,452,518
NAVER Corp.	35,545	5,048,413
POSCO Holdings, Inc.	3,428	754,536
Samsung Electronics Co. Ltd.	630,724	27,813,722
		<u>52,086,447</u>
Russia — 0.0%		
Gazprom PJSC (d) (e)	496,602	—
Novatek PJSC (d) (e)	73,140	—
		<u>—</u>
Saudi Arabia — 0.6%		
Al Rajhi Bank (b)	76,741	1,539,394
Arabian Internet & Communications Services Co.	2,715	175,602
Nahdi Medical Co.	33,441	1,491,180
The Saudi British Bank	277,694	2,884,326
The Saudi National Bank	207,759	2,796,815
		<u>8,887,317</u>
Singapore — 1.3%		
DBS Group Holdings, Ltd.	77,400	1,959,490
Jardine Cycle & Carriage Ltd. (c)	104,200	2,226,288
United Overseas Bank Ltd.	327,200	7,503,901
Wilmar International Ltd.	1,101,700	3,432,337

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Yangzijiang Shipbuilding Holdings Ltd.	3,658,400	\$ 3,699,513
		<u>18,821,529</u>
South Africa — 0.7%		
Capitec Bank Holdings Ltd.	28,418	3,108,504
Clicks Group Ltd.	101,732	1,617,097
FirstRand Ltd.	1,090,081	3,981,481
Kumba Iron Ore Ltd.	45,727	1,314,519
		<u>10,021,601</u>
Spain — 0.9%		
Amadeus IT Group SA (b)	95,194	4,909,159
Fluidra SA	141,863	2,200,150
Iberdrola SA	355,693	4,160,718
Indra Sistemas SA	101,848	1,159,399
		<u>12,429,426</u>
Sweden — 1.5%		
Assa Abloy AB Class B	108,192	2,327,850
Elektro AB	235,915	1,417,622
Essity AB Class B	112,563	2,954,547
Olink Holding AB ADR (b) (c)	29,221	741,629
Svenska Handelsbanken AB Class A	312,311	3,142,564
Swedbank AB Class A	296,639	5,039,519
Telefonaktiebolaget LM Ericsson Class B	1,051,202	6,156,229
		<u>21,779,960</u>
Switzerland — 6.8%		
ABB Ltd. Registered	135,698	4,133,059
Alcon, Inc.	78,230	5,373,187
Barry Callebaut AG Registered	2,269	4,495,443
Holcim AG (b)	45,833	2,363,478
Julius Baer Group Ltd. (b)	148,957	8,658,273
Lonza Group AG Registered	7,687	3,783,372
Nestle SA Registered	179,724	20,755,513
Novartis AG Registered	131,788	11,937,530
Partners Group Holding AG	5,217	4,637,340
PolyPeptide Group AG (a) (b)	7,985	217,423
Roche Holding AG	63,303	19,893,717
UBS Group AG Registered	169,737	3,163,827
Zurich Insurance Group AG	18,703	8,937,703
		<u>98,349,865</u>
Taiwan — 2.9%		
ASE Technology Holding Co. Ltd.	346,000	1,056,114
Hon Hai Precision Industry Co. Ltd.	1,173,000	3,810,936
Largan Precision Co. Ltd.	11,000	729,521
MediaTek, Inc.	184,000	3,737,422
Taiwan Semiconductor Manufacturing Co. Ltd.	2,232,000	32,530,616
Vanguard International Semiconductor Corp.	251,000	632,210
		<u>42,496,819</u>
Thailand — 0.7%		
Airports of Thailand PCL (b)	150,100	325,033

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Bangkok Dusit Medical Services PCL	2,515,000	\$ 2,123,971
Bumrungrad Hospital PCL	37,500	228,975
CP ALL PCL	2,372,000	4,674,145
Land & Houses PCL	8,758,200	2,497,957
The Siam Cement PCL	37,300	367,930
		<u>10,218,011</u>
United Arab Emirates — 0.2%		
First Abu Dhabi Bank PJSC	477,296	<u>2,219,930</u>
United Kingdom — 11.3%		
Amcors PLC	281,910	3,379,621
Antofagasta PLC	145,756	2,705,983
Ashtead Group PLC	95,252	5,441,432
ASOS PLC (b) (c)	138,436	843,952
AstraZeneca PLC Sponsored ADR	354,104	24,008,251
Atlassian Corp. (b)	5,700	733,476
boohoo Group PLC (b) (c)	384,235	164,820
Bridgepoint Group PLC (a)	709,137	1,643,122
British American Tobacco PLC	62,661	2,486,057
Bunzl PLC	48,767	1,627,711
Burberry Group PLC	146,058	3,568,931
Close Brothers Group PLC	42,247	534,826
Compass Group PLC	175,361	4,052,058
Diageo PLC	89,950	3,972,128
Direct Line Insurance Group PLC	1,022,195	2,740,647
Dr. Martens Plc	280,761	648,869
Fresnillo PLC	191,382	2,077,559
Great Portland Estates PLC	388,313	2,318,017
GSK PLC ADR	171,644	6,031,570
HSBC Holdings PLC	598,649	3,733,456
Imperial Brands PLC	154,269	3,854,346
Informa PLC	252,887	1,895,975
InterContinental Hotels Group PLC	35,826	2,062,099
Investec PLC	213,326	1,319,109
Johnson Matthey PLC	82,519	2,124,309
Kingfisher PLC	946,979	2,710,181
Lloyds Banking Group PLC	8,869,997	4,870,808
London Stock Exchange Group PLC	49,546	4,275,030
Melrose Industries PLC	1,500,024	2,438,608
Mondi PLC	56,319	956,492
National Grid PLC	246,034	2,955,208
Network International Holdings PLC (a) (b)	275,551	986,911
Next PLC	57,747	4,066,003
Persimmon PLC	95,989	1,416,907
Prudential PLC	369,913	5,005,897
Rightmove PLC	209,035	1,294,163
Rolls-Royce Holdings PLC (b)	2,327,201	2,605,512
Shell PLC	193,522	5,499,454
Shell PLC ADR	52,880	3,011,516
Smith & Nephew PLC	277,692	3,709,901
Smiths Group PLC	118,834	2,291,051
Standard Chartered PLC	325,846	2,445,710
Taylor Wimpey PLC	1,230,185	1,516,477
Unilever PLC	250,880	12,656,642
Unilever PLC	117,536	5,898,121

Vodafone Group PLC	1,860,830	1,886,267
Vodafone Group PLC Sponsored ADR	196,104	1,984,573

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
WPP PLC	614,391	\$ 6,099,579
		<u>164,549,335</u>
United States — 1.2%		
Autoliv, Inc.	21,746	1,666,473
Broadcom, Inc.	10,005	5,594,096
Canva, Inc. (Acquired 8/16/21, Cost \$652,842) (b) (d) (e) (f)	383	211,339
Las Vegas Sands Corp. (b)	6,100	293,227
Mastercard, Inc. Class A	7,933	2,758,542
MercadoLibre, Inc. (b)	1,400	1,184,736
Yum China Holdings, Inc.	102,200	5,585,230
Yum China Holdings, Inc.	8,400	468,799
		<u>17,762,442</u>
TOTAL COMMON STOCK (Cost \$1,436,772,268)		<u>1,424,104,775</u>
PREFERRED STOCK — 0.7%		
Germany — 0.7%		
Dr Ing hc F Porsche AG (b)	59,265	6,012,803
Sartorius AG 0.0340%	5,103	2,018,009
Volkswagen AG 6.014%	16,803	2,094,306
		<u>10,125,118</u>
United States — 0.0%		
Canva, Inc., Series A , (Acquired 11/04/21, Cost \$39,209) (b) (d) (e) (f)	23	12,691
TOTAL PREFERRED STOCK (Cost \$9,192,246)		<u>10,137,809</u>
TOTAL EQUITIES (Cost \$1,445,964,514)		<u>1,434,242,584</u>
MUTUAL FUNDS — 0.2%		
United States — 0.2%		
State Street Navigator Securities Lending Government Money Market Portfolio (g)	2,310,919	2,310,919
TOTAL MUTUAL FUNDS (Cost \$2,310,919)		<u>2,310,919</u>
RIGHTS — 0.0%		
Brazil — 0.0%		
Localiza Rent a Car SA (b) (e)	887	1,807
Republic of Korea — 0.0%		
Lotte Chemical Corp. Right (b) (d) (e)	3,411	95,762
Russia — 0.0%		
Moscow Exchange (b) (d) (e)	83,990	—
Moscow Exchange (b) (d) (e)	1,181,630	—
		<u>—</u>

MassMutual Select T. Rowe Price International Equity Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
TOTAL RIGHTS (Cost \$2,619,127)		\$ 97,569
TOTAL LONG-TERM INVESTMENTS (Cost \$1,450,894,560)		1,436,651,072
SHORT-TERM INVESTMENTS — 0.8%		
Mutual Fund — 0.7%		
T. Rowe Price Government Reserve Investment Fund	10,433,385	10,433,385
	Principal Amount	
Repurchase Agreement — 0.1%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (h)	\$ 1,120,919	1,120,919
TOTAL SHORT-TERM INVESTMENTS (Cost \$11,554,304)		11,554,304
TOTAL INVESTMENTS — 99.9% (Cost \$1,462,448,864) (i)		1,448,205,376
Other Assets/(Liabilities) — 0.1%		2,091,431
NET ASSETS — 100.0%		\$ 1,450,296,807

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$37,219,401 or 2.57% of net assets.
- (b) Non-income producing security.
- (c) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$21,450,615 or 1.48% of net assets. The Fund received \$20,112,328 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).
- (d) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$319,792 or 0.02% of net assets.
- (e) Investment is valued using significant unobservable inputs.
- (f) Restricted security. Certain securities are restricted as to resale. At December 31, 2022, these securities amounted to a value of \$224,031 or 0.02% of net assets. The Fund generally bears the costs, if any, associated with the disposition of restricted securities.
- (g) Represents investment of security lending cash collateral. (Note 2).
- (h) Maturity value of \$1,121,079. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,143,386.
- (i) See Note 3 for aggregate cost for federal tax purposes.

OTC Options Written

Description	Counterparty	Expiration Date	Exercise Price	No. of Contracts	Notional Amount	Value	Premiums Paid (Received)	Unrealized Appreciation/ (Depreciation)
Call								
Julius Baer Group Ltd.	Goldman Sachs International	1/20/23	56.00	62	CHF 347,200	\$ (2,416)	\$ (9,292)	\$ 6,876
Julius Baer Group Ltd.	Goldman Sachs International	2/17/23	57.00	62	CHF 353,400	(5,539)	(10,941)	5,402
Julius Baer Group Ltd.	Goldman Sachs International	2/17/23	58.00	61	CHF 353,800	(3,950)	(8,535)	4,585
						<u>\$ (11,905)</u>	<u>\$ (28,768)</u>	<u>\$ 16,863</u>

Currency Legend
CHF Swiss Franc

MassMutual 20/80 Allocation Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 21.4%		
DFA Commodity Strategy Portfolio	153,359	\$ 752,993
Invesco Real Estate Fund, Class R6	24,761	405,829
MassMutual Blue Chip Growth Fund, Class I (a)	197,020	3,203,541
MassMutual Diversified Value Fund, Class I (a)	203,390	2,241,353
MassMutual Equity Opportunities Fund, Class I (a)	311,711	5,046,594
MassMutual Fundamental Value Fund, Class I (a)	260,427	2,169,357
MassMutual Growth Opportunities Fund, Class I (a)	179,155	747,075
MassMutual International Equity Fund, Class I (a)	78,545	611,867
MassMutual Mid Cap Growth Fund, Class I (a)	64,021	1,118,451
MassMutual Mid Cap Value Fund, Class I (a)	114,280	1,234,222
MassMutual Overseas Fund, Class I (a)	459,840	3,448,802
MassMutual Small Cap Growth Equity Fund, Class I (a)	15,047	188,391
MassMutual Small Cap Value Equity Fund, Class I (a)	97,043	818,071
MassMutual Strategic Emerging Markets Fund, Class I (a)	91,107	829,071
MM Equity Asset Fund, Class I (a)	1,284,929	8,300,644
Vanguard Developed Markets Index Fund, Admiral Shares	158,425	2,141,900
Vanguard Emerging Markets Stock Index Fund, Admiral Shares	12,160	394,119
Vanguard Mid-Cap Index Fund, Admiral Shares	4,789	1,209,188
Vanguard Small-Cap Index Fund, Admiral Shares	7,945	698,641
		<u>35,560,109</u>
Fixed Income Funds — 78.6%		
Invesco International Bond Fund, Class R6	1,600,165	6,880,710
MassMutual Core Bond Fund, Class I (a)	2,996,289	26,637,006
MassMutual Global Floating Rate Fund, Class I (a)	36,760	312,460
MassMutual High Yield Fund, Class I (a)	63,901	476,060
MassMutual Inflation-Protected and Income Fund, Class I (a)	186,239	1,694,774
MassMutual Short-Duration Bond Fund, Class I (a)	1,886,951	16,246,648
MassMutual Strategic Bond Fund, Class I (b)	3,825,502	32,631,531
MassMutual Total Return Bond Fund, Class I (a)	4,542,775	38,023,028
Vanguard Long-Term Treasury Index Fund, Admiral Shares	11,070	229,048
Vanguard Total Bond Market Index Fund, Institutional Shares	813,939	7,716,146
		<u>130,847,411</u>
TOTAL MUTUAL FUNDS		
(Cost \$194,478,878)		<u>166,407,520</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$194,478,878)		<u>166,407,520</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$194,478,878) (c)		166,407,520
Other Assets/(Liabilities) — (0.0)%		<u>(48,635)</u>
NET ASSETS — 100.0%		<u>\$ 166,358,885</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

- (b) Non-income producing security.
- (c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual 40/60 Allocation Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 41.3%		
DFA Commodity Strategy Portfolio	144,700	\$ 710,477
Invesco Real Estate Fund, Class R6	34,801	570,396
MassMutual Blue Chip Growth Fund, Class I (a)	367,279	5,971,958
MassMutual Diversified Value Fund, Class I (a)	476,294	5,248,754
MassMutual Equity Opportunities Fund, Class I (a)	573,076	9,278,104
MassMutual Fundamental Value Fund, Class I (a)	608,492	5,068,740
MassMutual Growth Opportunities Fund, Class I (a)	334,199	1,393,609
MassMutual International Equity Fund, Class I (a)	279,127	2,174,396
MassMutual Mid Cap Growth Fund, Class I (a)	98,062	1,713,151
MassMutual Mid Cap Value Fund, Class I (a)	264,728	2,859,064
MassMutual Overseas Fund, Class I (a)	673,935	5,054,513
MassMutual Small Cap Growth Equity Fund, Class I (a)	31,339	392,368
MassMutual Small Cap Value Equity Fund, Class I (a)	244,535	2,061,431
MassMutual Strategic Emerging Markets Fund, Class I (a)	130,374	1,186,405
MM Equity Asset Fund, Class I (a)	2,827,555	18,266,008
Vanguard Developed Markets Index Fund, Institutional Shares	397,846	5,382,858
Vanguard Emerging Markets Stock Index Fund, Admiral Shares	25,206	816,938
Vanguard Mid-Cap Index Fund, Admiral Shares	10,636	2,685,152
Vanguard Small-Cap Index Fund, Admiral Shares	18,328	1,611,734
		<u>72,446,056</u>
Fixed Income Funds — 58.8%		
Invesco International Bond Fund, Class R6	1,235,747	5,313,714
MassMutual Core Bond Fund, Class I (a)	2,230,910	19,832,787
MassMutual Global Floating Rate Fund, Class I (a)	42,690	362,862
MassMutual High Yield Fund, Class I (a)	84,293	627,987
MassMutual Inflation-Protected and Income Fund, Class I (a)	97,604	888,201
MassMutual Short-Duration Bond Fund, Class I (a)	1,642,934	14,145,663
MassMutual Strategic Bond Fund, Class I (b)	2,838,831	24,215,226
MassMutual Total Return Bond Fund, Class I (a)	3,658,579	30,622,309
Vanguard Long-Term Treasury Index Fund, Admiral Shares	11,855	245,282
Vanguard Total Bond Market Index Fund, Institutional Shares	745,297	7,065,420
		<u>103,319,451</u>
TOTAL MUTUAL FUNDS		
(Cost \$208,256,636)		<u>175,765,507</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$208,256,636)		<u>175,765,507</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$208,256,636) (c)		175,765,507
Other Assets/(Liabilities) — (0.1)%		<u>(160,380)</u>
NET ASSETS — 100.0%		<u>\$ 175,605,127</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

- (b) Non-income producing security.
- (c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual 60/40 Allocation Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 59.8%		
DFA Commodity Strategy Portfolio	110,165	\$ 540,911
Invesco Real Estate Fund, Class R6	40,254	659,769
MassMutual Blue Chip Growth Fund, Class I (a)	502,585	8,172,038
MassMutual Diversified Value Fund, Class I (a)	679,891	7,492,396
MassMutual Equity Opportunities Fund, Class I (a)	855,173	13,845,250
MassMutual Fundamental Value Fund, Class I (a)	709,871	5,913,229
MassMutual Growth Opportunities Fund, Class I (a)	424,316	1,769,399
MassMutual International Equity Fund, Class I (a)	275,142	2,143,356
MassMutual Mid Cap Growth Fund, Class I (a)	154,455	2,698,331
MassMutual Mid Cap Value Fund, Class I (a)	409,010	4,417,310
MassMutual Overseas Fund, Class I (a)	675,052	5,062,887
MassMutual Small Cap Growth Equity Fund, Class I (a)	68,148	853,209
MassMutual Small Cap Value Equity Fund, Class I (a)	297,772	2,510,219
MassMutual Strategic Emerging Markets Fund, Class I (a)	29,367	267,244
MM Equity Asset Fund, Class I (a)	4,483,710	28,964,767
Vanguard Developed Markets Index Fund, Institutional Shares	497,586	6,732,332
Vanguard Emerging Markets Stock Index Fund, Admiral Shares	42,906	1,390,589
Vanguard Mid-Cap Index Fund, Admiral Shares	16,079	4,059,541
Vanguard Small-Cap Index Fund, Admiral Shares	12,938	1,137,743
		<u>98,630,520</u>
Fixed Income Funds — 40.3%		
Invesco International Bond Fund, Class R6	916,298	3,940,080
MassMutual Core Bond Fund, Class I (a)	1,358,866	12,080,319
MassMutual Global Floating Rate Fund, Class I (a)	35,027	297,730
MassMutual High Yield Fund, Class I (a)	81,616	608,036
MassMutual Inflation-Protected and Income Fund, Class I (a)	44,831	407,965
MassMutual Short-Duration Bond Fund, Class I (a)	1,109,882	9,556,085
MassMutual Strategic Bond Fund, Class I (b)	1,881,399	16,048,331
MassMutual Total Return Bond Fund, Class I (a)	2,238,451	18,735,833
Vanguard Long-Term Treasury Index Fund, Admiral Shares	13,007	269,122
Vanguard Total Bond Market Index Fund, Institutional Shares	481,485	4,564,480
		<u>66,507,981</u>
TOTAL MUTUAL FUNDS		
(Cost \$195,139,028)		<u>165,138,501</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$195,139,028)		<u>165,138,501</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$195,139,028) (c)		165,138,501
Other Assets/(Liabilities) — (0.1)%		<u>(125,780)</u>
NET ASSETS — 100.0%		<u>\$ 165,012,721</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

- (b) Non-income producing security.
- (c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual 80/20 Allocation Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 80.3%		
DFA Commodity Strategy Portfolio	61,899	\$ 303,924
Invesco Real Estate Fund, Class R6	52,895	866,949
MassMutual Blue Chip Growth Fund, Class I (a)	515,892	8,388,407
MassMutual Diversified Value Fund, Class I (a)	510,264	5,623,113
MassMutual Equity Opportunities Fund, Class I (a)	820,193	13,278,926
MassMutual Fundamental Value Fund, Class I (a)	683,499	5,693,546
MassMutual Growth Opportunities Fund, Class I (a)	370,435	1,544,713
MassMutual International Equity Fund, Class I (a)	430,006	3,349,748
MassMutual Mid Cap Growth Fund, Class I (a)	177,596	3,102,608
MassMutual Mid Cap Value Fund, Class I (a)	364,988	3,941,874
MassMutual Overseas Fund, Class I (a)	940,090	7,050,677
MassMutual Small Cap Growth Equity Fund, Class I (a)	76,495	957,721
MassMutual Small Cap Value Equity Fund, Class I (a)	231,822	1,954,262
MassMutual Strategic Emerging Markets Fund, Class I (a)	242,032	2,202,488
MM Equity Asset Fund, Class I (a)	3,809,687	24,610,575
Vanguard Developed Markets Index Fund, Institutional Shares	501,308	6,782,696
Vanguard Emerging Markets Stock Index Fund, Admiral Shares	47,636	1,543,870
Vanguard Mid-Cap Index Fund, Admiral Shares	17,554	4,431,967
Vanguard Small-Cap Index Fund, Admiral Shares	25,560	2,247,732
		<u>97,875,796</u>
Fixed Income Funds — 19.8%		
Invesco International Bond Fund, Class R6	437,169	1,879,826
MassMutual Core Bond Fund, Class I (a)	439,793	3,909,762
MassMutual Global Floating Rate Fund, Class I (a)	36,349	308,969
MassMutual High Yield Fund, Class I (a)	77,136	574,662
MassMutual Inflation-Protected and Income Fund, Class I (a)	14,373	130,795
MassMutual Short-Duration Bond Fund, Class I (a)	623,622	5,369,381
MassMutual Strategic Bond Fund, Class I (a)	441,548	3,766,407
MassMutual Total Return Bond Fund, Class I (a)	855,424	7,159,899
Vanguard Long-Term Treasury Index Fund, Admiral Shares	6,225	128,805
Vanguard Total Bond Market Index Fund, Admiral Shares	99,822	946,312
		<u>24,174,818</u>
TOTAL MUTUAL FUNDS		
(Cost \$143,676,046)		<u>122,050,614</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$143,676,046)		<u>122,050,614</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$143,676,046) (b)		122,050,614
Other Assets/(Liabilities) — (0.1)%		<u>(79,789)</u>
NET ASSETS — 100.0%		<u>\$ 121,970,825</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan In Retirement Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 35.1%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	59,112	\$ 868,357
JPMorgan Large Cap Value Fund, Class R6	58,205	1,044,782
MassMutual Blue Chip Growth Fund, Class I (a)	93,240	1,516,080
MassMutual Diversified Value Fund, Class I (a)	82,363	907,639
MassMutual Equity Opportunities Fund, Class I (a)	153,556	2,486,078
MassMutual Fundamental Value Fund, Class I (a)	145,016	1,207,983
MassMutual Growth Opportunities Fund, Class I (a)	110,672	461,500
MassMutual International Equity Fund, Class I (a)	198,942	1,549,756
MassMutual Mid Cap Growth Fund, Class I (a)	40,802	712,818
MassMutual Mid Cap Value Fund, Class I (a)	64,952	701,480
MassMutual Overseas Fund, Class I (a)	363,333	2,724,998
MassMutual Small Cap Growth Equity Fund, Class I (a)	38,793	485,693
MassMutual Small Cap Value Equity Fund, Class I (a)	77,017	649,257
MassMutual Strategic Emerging Markets Fund, Class I (a)	175,564	1,597,628
MM Equity Asset Fund, Class I (a)	1,166,270	7,534,105
Vanguard Developed Markets Index Fund, Admiral Shares	263,352	3,560,522
Vanguard Mid-Cap Index Fund, Admiral Shares	2,424	611,971
Vanguard Real Estate Index Fund, Admiral Shares	4,378	511,709
Vanguard Small-Cap Index Fund, Admiral Shares	5,709	502,062
		<u>29,634,418</u>
Fixed Income Funds — 65.0%		
JPMorgan Emerging Markets Debt Fund, Class R6	64,830	383,143
JPMorgan U.S. Government Money Market Fund, Class IM	11,873,065	11,873,065
MassMutual Core Bond Fund, Class I (a)	1,854,661	16,487,935
MassMutual Global Floating Rate Fund, Class I (a)	13,028	110,735
MassMutual High Yield Fund, Class I (a)	586,344	4,368,263
MassMutual Inflation-Protected and Income Fund, Class I (a)	680,318	6,190,891
MassMutual Strategic Bond Fund, Class I (b)	655,169	5,588,590
MassMutual Total Return Bond Fund, Class I (a)	665,741	5,572,249
Vanguard Total Bond Market Index Fund, Institutional Shares	442,753	4,197,294
		<u>54,772,165</u>
TOTAL MUTUAL FUNDS		
(Cost \$98,110,178)		<u>84,406,583</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$98,110,178)		<u>84,406,583</u>

***MassMutual RetireSMARTsm by JPMorgan In Retirement Fund — Portfolio of Investments
(Continued)***

	<u>Number of Shares</u>	<u>Value</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$98,110,178) (c)		\$ 84,406,583
Other Assets/(Liabilities) — (0.1)%		(112,475)
NET ASSETS — 100.0%		<u>\$ 84,294,108</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2020 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 35.1%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	116,288	\$ 1,708,265
JPMorgan Large Cap Value Fund, Class R6	114,534	2,055,880
MassMutual Blue Chip Growth Fund, Class I (a)	182,195	2,962,498
MassMutual Diversified Value Fund, Class I (a)	162,034	1,785,620
MassMutual Equity Opportunities Fund, Class I (a)	302,943	4,904,653
MassMutual Fundamental Value Fund, Class I (a)	283,451	2,361,143
MassMutual Growth Opportunities Fund, Class I (a)	218,010	909,103
MassMutual International Equity Fund, Class I (a)	394,559	3,073,615
MassMutual Mid Cap Growth Fund, Class I (a)	80,533	1,406,908
MassMutual Mid Cap Value Fund, Class I (a)	128,259	1,385,198
MassMutual Overseas Fund, Class I (a)	708,740	5,315,553
MassMutual Small Cap Growth Equity Fund, Class I (a)	76,483	957,565
MassMutual Small Cap Value Equity Fund, Class I (a)	151,854	1,280,130
MassMutual Strategic Emerging Markets Fund, Class I (a)	348,433	3,170,744
MM Equity Asset Fund, Class I (a)	2,279,229	14,723,817
Vanguard Developed Markets Index Fund, Institutional Shares	510,631	6,908,831
Vanguard Mid-Cap Index Fund, Admiral Shares	4,707	1,188,410
Vanguard Real Estate Index Fund, Admiral Shares	8,503	993,732
Vanguard Small-Cap Index Fund, Admiral Shares	11,087	974,969
		<u>58,066,634</u>
Fixed Income Funds — 65.0%		
JPMorgan Emerging Markets Debt Fund, Class R6	126,570	748,030
JPMorgan U.S. Government Money Market Fund, Class IM	23,282,012	23,282,012
MassMutual Core Bond Fund, Class I (a)	3,638,519	32,346,433
MassMutual Global Floating Rate Fund, Class I (a)	25,299	215,043
MassMutual High Yield Fund, Class I (a)	1,150,117	8,568,372
MassMutual Inflation-Protected and Income Fund, Class I (a)	1,334,667	12,145,469
MassMutual Strategic Bond Fund, Class I (b)	1,285,165	10,962,461
MassMutual Total Return Bond Fund, Class I (a)	1,306,008	10,931,286
Vanguard Total Bond Market Index Fund, Institutional Shares	859,825	8,151,139
		<u>107,350,245</u>
TOTAL MUTUAL FUNDS		
(Cost \$192,843,390)		<u>165,416,879</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$192,843,390)		<u>165,416,879</u>

MassMutual RetireSMARTsm by JPMorgan 2020 Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
TOTAL INVESTMENTS — 100.1%		
(Cost \$192,843,390) (c)		\$ 165,416,879
Other Assets/(Liabilities) — (0.1)%		(189,415)
NET ASSETS — 100.0%		\$ 165,227,464

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2025 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 46.5%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	172,736	\$ 2,537,495
JPMorgan Large Cap Value Fund, Class R6	130,792	2,347,713
MassMutual Blue Chip Growth Fund, Class I (a)	209,122	3,400,316
MassMutual Diversified Value Fund, Class I (a)	184,995	2,038,647
MassMutual Equity Opportunities Fund, Class I (a)	343,877	5,567,366
MassMutual Fundamental Value Fund, Class I (a)	325,516	2,711,549
MassMutual Growth Opportunities Fund, Class I (a)	248,460	1,036,080
MassMutual International Equity Fund, Class I (a)	445,573	3,471,017
MassMutual Mid Cap Growth Fund, Class I (a)	89,895	1,570,466
MassMutual Mid Cap Value Fund, Class I (a)	143,131	1,545,813
MassMutual Overseas Fund, Class I (a)	815,393	6,115,448
MassMutual Small Cap Growth Equity Fund, Class I (a)	84,793	1,061,605
MassMutual Small Cap Value Equity Fund, Class I (a)	168,687	1,422,030
MassMutual Strategic Emerging Markets Fund, Class I (a)	515,623	4,692,168
MM Equity Asset Fund, Class I (a)	2,619,873	16,924,382
Vanguard Developed Markets Index Fund, Institutional Shares	586,556	7,936,097
Vanguard Mid-Cap Index Fund, Admiral Shares	5,299	1,337,830
Vanguard Real Estate Index Fund, Admiral Shares	12,582	1,470,492
Vanguard Small-Cap Index Fund, Admiral Shares	12,414	1,091,668
		<u>68,278,182</u>
Fixed Income Funds — 53.6%		
JPMorgan Emerging Markets Debt Fund, Class R6	225,402	1,332,127
JPMorgan U.S. Government Money Market Fund, Class IM	11,211,515	11,211,515
MassMutual Core Bond Fund, Class I (a)	3,086,599	27,439,862
MassMutual Global Floating Rate Fund, Class I (a)	22,285	189,426
MassMutual High Yield Fund, Class I (a)	992,722	7,395,779
MassMutual Inflation-Protected and Income Fund, Class I (a)	613,662	5,584,326
MassMutual Strategic Bond Fund, Class I (b)	1,089,644	9,294,668
MassMutual Total Return Bond Fund, Class I (a)	1,107,350	9,268,516
Vanguard Total Bond Market Index Fund, Institutional Shares	734,632	6,964,314
		<u>78,680,533</u>
TOTAL MUTUAL FUNDS		
(Cost \$173,988,825)		<u>146,958,715</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$173,988,825)		<u>146,958,715</u>

MassMutual RetireSMARTsm by JPMorgan 2025 Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
TOTAL INVESTMENTS — 100.1% (Cost \$173,988,825) (c)		\$ 146,958,715
Other Assets/(Liabilities) — (0.1)%		(123,406)
NET ASSETS — 100.0%		\$ 146,835,309

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2030 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 59.5%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	511,478	\$ 7,513,612
JPMorgan Large Cap Value Fund, Class R6	374,169	6,716,339
MassMutual Blue Chip Growth Fund, Class I (a)	598,930	9,738,610
MassMutual Diversified Value Fund, Class I (a)	528,875	5,828,207
MassMutual Equity Opportunities Fund, Class I (a)	983,179	15,917,671
MassMutual Fundamental Value Fund, Class I (a)	931,633	7,760,500
MassMutual Growth Opportunities Fund, Class I (a)	710,039	2,960,865
MassMutual International Equity Fund, Class I (a)	1,284,754	10,008,233
MassMutual Mid Cap Growth Fund, Class I (a)	252,231	4,406,480
MassMutual Mid Cap Value Fund, Class I (a)	401,727	4,338,653
MassMutual Overseas Fund, Class I (a)	2,354,589	17,659,420
MassMutual Small Cap Growth Equity Fund, Class I (a)	239,644	3,000,339
MassMutual Small Cap Value Equity Fund, Class I (a)	477,124	4,022,154
MassMutual Strategic Emerging Markets Fund, Class I (a)	1,525,100	13,878,411
MM Equity Asset Fund, Class I (a)	7,500,576	48,453,723
Vanguard Developed Markets Index Fund, Institutional Shares	1,666,573	22,548,734
Vanguard Mid-Cap Index Fund, Admiral Shares	14,708	3,713,401
Vanguard Real Estate Index Fund, Institutional Shares	278,862	5,044,614
Vanguard Small-Cap Index Fund, Admiral Shares	34,711	3,052,455
		<u>196,562,421</u>
Fixed Income Funds — 40.6%		
JPMorgan Emerging Markets Debt Fund, Class R6	295,938	1,748,994
JPMorgan U.S. Government Money Market Fund, Class IM	18,241,150	18,241,150
MassMutual Core Bond Fund, Class I (a)	5,729,582	50,935,986
MassMutual High Yield Fund, Class I (a)	1,907,929	14,214,071
MassMutual Inflation-Protected and Income Fund, Class I (a)	212,571	1,934,400
MassMutual Strategic Bond Fund, Class I (b)	2,021,430	17,242,794
MassMutual Total Return Bond Fund, Class I (a)	2,054,420	17,195,495
Vanguard Total Bond Market Index Fund, Institutional Shares	1,347,400	12,773,350
		<u>134,286,240</u>
TOTAL MUTUAL FUNDS		
(Cost \$392,425,728)		<u>330,848,661</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$392,425,728)		<u>330,848,661</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$392,425,728) (c)		330,848,661
Other Assets/(Liabilities) — (0.1)%		<u>(277,195)</u>
NET ASSETS — 100.0%		<u>\$ 330,571,466</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2035 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 71.6%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	515,620	\$ 7,574,456
JPMorgan Large Cap Value Fund, Class R6	198,831	3,569,009
MassMutual Blue Chip Growth Fund, Class I (a)	484,500	7,877,970
MassMutual Diversified Value Fund, Class I (a)	281,540	3,102,566
MassMutual Equity Opportunities Fund, Class I (a)	328,048	5,311,101
MassMutual Fundamental Value Fund, Class I (a)	439,887	3,664,260
MassMutual Growth Opportunities Fund, Class I (a)	631,003	2,631,281
MassMutual International Equity Fund, Class I (a)	859,328	6,694,162
MassMutual Mid Cap Growth Fund, Class I (a)	133,829	2,337,992
MassMutual Mid Cap Value Fund, Class I (a)	213,071	2,301,168
MassMutual Overseas Fund, Class I (a)	1,466,534	10,999,002
MassMutual Small Cap Growth Equity Fund, Class I (a)	126,784	1,587,339
MassMutual Small Cap Value Equity Fund, Class I (a)	252,188	2,125,946
MassMutual Strategic Emerging Markets Fund, Class I (a)	442,465	4,026,428
MM Equity Asset Fund, Class I (a)	4,044,586	26,128,027
Vanguard Developed Markets Index Fund, Admiral Shares	705,247	9,534,934
Vanguard Mid-Cap Index Fund, Admiral Shares	7,951	2,007,429
Vanguard Real Estate Index Fund, Admiral Shares	25,335	2,960,854
Vanguard Small-Cap Index Fund, Admiral Shares	18,675	1,642,299
		<u>106,076,223</u>
Fixed Income Funds — 28.5%		
JPMorgan Emerging Markets Debt Fund, Class R6	33,474	197,834
JPMorgan U.S. Government Money Market Fund, Class IM	7,624,252	7,624,252
MassMutual Core Bond Fund, Class I (a)	734,368	6,528,535
MassMutual High Yield Fund, Class I (a)	522,937	3,895,878
MassMutual Strategic Bond Fund, Class I (a)	1,305,285	11,134,083
MassMutual Total Return Bond Fund, Class I (a)	1,326,525	11,103,012
Vanguard Total Bond Market Index Fund, Admiral Shares	173,867	1,648,255
		<u>42,131,849</u>
TOTAL MUTUAL FUNDS		
(Cost \$176,722,262)		<u>148,208,072</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$176,722,262)		<u>148,208,072</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$176,722,262) (b)		148,208,072
Other Assets/(Liabilities) — (0.1)%		<u>(128,840)</u>
NET ASSETS — 100.0%		<u>\$ 148,079,232</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2040 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 81.4%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	947,383	\$ 13,917,052
JPMorgan Large Cap Value Fund, Class R6	371,941	6,676,346
MassMutual Blue Chip Growth Fund, Class I (a)	902,398	14,672,998
MassMutual Diversified Value Fund, Class I (a)	524,968	5,785,149
MassMutual Equity Opportunities Fund, Class I (a)	613,409	9,931,096
MassMutual Fundamental Value Fund, Class I (a)	819,353	6,825,209
MassMutual Growth Opportunities Fund, Class I (a)	1,175,676	4,902,567
MassMutual International Equity Fund, Class I (a)	1,650,053	12,853,910
MassMutual Mid Cap Growth Fund, Class I (a)	247,078	4,316,452
MassMutual Mid Cap Value Fund, Class I (a)	393,531	4,250,139
MassMutual Overseas Fund, Class I (a)	2,802,480	21,018,599
MassMutual Small Cap Growth Equity Fund, Class I (a)	235,029	2,942,561
MassMutual Small Cap Value Equity Fund, Class I (a)	468,465	3,949,162
MassMutual Strategic Emerging Markets Fund, Class I (a)	817,750	7,441,527
MM Equity Asset Fund, Class I (a)	7,539,225	48,703,396
Vanguard Developed Markets Index Fund, Institutional Shares	1,335,185	18,065,055
Vanguard Mid-Cap Index Fund, Admiral Shares	14,541	3,671,260
Vanguard Real Estate Index Fund, Admiral Shares	49,821	5,822,547
Vanguard Small-Cap Index Fund, Admiral Shares	34,222	3,009,485
		<u>198,754,510</u>
Fixed Income Funds — 18.7%		
JPMorgan Emerging Markets Debt Fund, Class R6	389,505	2,301,975
JPMorgan U.S. Government Money Market Fund, Class IM	9,438,095	9,438,095
MassMutual Core Bond Fund, Class I (a)	647,616	5,757,304
MassMutual High Yield Fund, Class I (a)	662,516	4,935,745
MassMutual Strategic Bond Fund, Class I (b)	1,273,400	10,862,105
MassMutual Total Return Bond Fund, Class I (a)	1,293,164	10,823,783
Vanguard Total Bond Market Index Fund, Admiral Shares	151,776	1,438,836
		<u>45,557,843</u>
TOTAL MUTUAL FUNDS		
(Cost \$292,929,399)		<u>244,312,353</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$292,929,399)		<u>244,312,353</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$292,929,399) (c)		244,312,353
Other Assets/(Liabilities) — (0.1)%		<u>(179,507)</u>
NET ASSETS — 100.0%		<u>\$ 244,132,846</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2045 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 88.8%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	456,615	\$ 6,707,677
JPMorgan Large Cap Value Fund, Class R6	178,604	3,205,940
MassMutual Blue Chip Growth Fund, Class I (a)	432,544	7,033,160
MassMutual Diversified Value Fund, Class I (a)	252,281	2,780,138
MassMutual Equity Opportunities Fund, Class I (a)	293,509	4,751,919
MassMutual Fundamental Value Fund, Class I (a)	392,450	3,269,109
MassMutual Growth Opportunities Fund, Class I (a)	565,492	2,358,100
MassMutual International Equity Fund, Class I (a)	789,145	6,147,437
MassMutual Mid Cap Growth Fund, Class I (a)	118,805	2,075,522
MassMutual Mid Cap Value Fund, Class I (a)	189,003	2,041,233
MassMutual Overseas Fund, Class I (a)	1,338,541	10,039,054
MassMutual Small Cap Growth Equity Fund, Class I (a)	112,848	1,412,853
MassMutual Small Cap Value Equity Fund, Class I (a)	224,250	1,890,425
MassMutual Strategic Emerging Markets Fund, Class I (a)	390,888	3,557,078
MM Equity Asset Fund, Class I (a)	3,607,496	23,304,423
Vanguard Developed Markets Index Fund, Admiral Shares	663,964	8,976,790
Vanguard Mid-Cap Index Fund, Admiral Shares	7,218	1,822,251
Vanguard Real Estate Index Fund, Admiral Shares	25,317	2,958,805
Vanguard Small-Cap Index Fund, Admiral Shares	16,986	1,493,747
		<u>95,825,661</u>
Fixed Income Funds — 11.3%		
JPMorgan Emerging Markets Debt Fund, Class R6	84,057	496,780
JPMorgan U.S. Government Money Market Fund, Class IM	4,155,694	4,155,694
MassMutual Core Bond Fund, Class I (a)	142,832	1,269,776
MassMutual High Yield Fund, Class I (a)	147,380	1,097,979
MassMutual Strategic Bond Fund, Class I (b)	280,872	2,395,837
MassMutual Total Return Bond Fund, Class I (a)	285,377	2,388,609
Vanguard Total Bond Market Index Fund, Admiral Shares	34,603	328,039
		<u>12,132,714</u>
TOTAL MUTUAL FUNDS		
(Cost \$129,834,336)		<u>107,958,375</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$129,834,336)		<u>107,958,375</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$129,834,336) (c)		107,958,375
Other Assets/(Liabilities) — (0.1)%		<u>(101,854)</u>
NET ASSETS — 100.0%		<u>\$ 107,856,521</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2050 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 90.2%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	750,996	\$ 11,032,138
JPMorgan Large Cap Value Fund, Class R6	291,203	5,227,101
MassMutual Blue Chip Growth Fund, Class I (a)	709,862	11,542,363
MassMutual Diversified Value Fund, Class I (a)	411,233	4,531,784
MassMutual Equity Opportunities Fund, Class I (a)	477,215	7,726,113
MassMutual Fundamental Value Fund, Class I (a)	645,000	5,372,848
MassMutual Growth Opportunities Fund, Class I (a)	925,119	3,857,746
MassMutual International Equity Fund, Class I (a)	1,302,214	10,144,246
MassMutual Mid Cap Growth Fund, Class I (a)	195,363	3,412,997
MassMutual Mid Cap Value Fund, Class I (a)	311,206	3,361,029
MassMutual Overseas Fund, Class I (a)	2,205,432	16,540,737
MassMutual Small Cap Growth Equity Fund, Class I (a)	185,367	2,320,798
MassMutual Small Cap Value Equity Fund, Class I (a)	368,308	3,104,840
MassMutual Strategic Emerging Markets Fund, Class I (a)	651,030	5,924,376
MM Equity Asset Fund, Class I (a)	5,920,031	38,243,399
Vanguard Developed Markets Index Fund, Admiral Shares	1,047,736	14,165,390
Vanguard Mid-Cap Index Fund, Admiral Shares	11,388	2,875,203
Vanguard Real Estate Index Fund, Admiral Shares	40,031	4,678,479
Vanguard Small-Cap Index Fund, Admiral Shares	26,802	2,356,968
		<u>156,418,555</u>
Fixed Income Funds — 9.9%		
JPMorgan Emerging Markets Debt Fund, Class R6	107,484	635,229
JPMorgan U.S. Government Money Market Fund, Class IM	6,700,173	6,700,173
MassMutual Core Bond Fund, Class I (a)	186,359	1,656,729
MassMutual High Yield Fund, Class I (a)	194,057	1,445,723
MassMutual Strategic Bond Fund, Class I (b)	366,526	3,126,468
MassMutual Total Return Bond Fund, Class I (a)	372,517	3,117,964
Vanguard Total Bond Market Index Fund, Admiral Shares	43,531	412,671
		<u>17,094,957</u>
TOTAL MUTUAL FUNDS		
(Cost \$208,654,342)		<u>173,513,512</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$208,654,342)		<u>173,513,512</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$208,654,342) (c)		173,513,512
Other Assets/(Liabilities) — (0.1)%		<u>(109,580)</u>
NET ASSETS — 100.0%		<u>\$ 173,403,932</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2055 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
Diversified Financial Services — 100.1%		
Equity Funds — 90.2%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	247,256	\$ 3,632,197
JPMorgan Large Cap Value Fund, Class R6	95,820	1,719,964
MassMutual Blue Chip Growth Fund, Class I (a)	234,983	3,820,826
MassMutual Diversified Value Fund, Class I (a)	135,607	1,494,390
MassMutual Equity Opportunities Fund, Class I (a)	157,179	2,544,730
MassMutual Fundamental Value Fund, Class I (a)	213,549	1,778,861
MassMutual Growth Opportunities Fund, Class I (a)	305,043	1,272,029
MassMutual International Equity Fund, Class I (a)	431,134	3,358,534
MassMutual Mid Cap Growth Fund, Class I (a)	64,538	1,127,486
MassMutual Mid-Cap Value Fund, Class I (a)	102,793	1,110,167
MassMutual Overseas Fund, Class I (a)	724,837	5,436,279
MassMutual Small Cap Growth Equity Fund, Class I (a)	61,432	769,126
MassMutual Small Cap Value Equity Fund, Class I (a)	121,828	1,027,009
MassMutual Strategic Emerging Markets Fund, Class I (a)	216,130	1,966,781
MM Equity Asset Fund, Class I (a)	1,959,759	12,660,042
Vanguard Developed Markets Index Fund, Admiral Shares	353,185	4,775,059
Vanguard Mid-Cap Index Fund, Admiral Shares	3,839	969,213
Vanguard Real Estate Index Fund, Admiral Shares	13,495	1,577,103
Vanguard Small-Cap Index Fund, Admiral Shares	9,035	794,516
		<u>51,834,312</u>
Fixed Income Funds — 9.9%		
JPMorgan Emerging Markets Debt Fund, Class R6	35,639	210,625
JPMorgan U.S. Government Money Market Fund, Class IM	2,218,732	2,218,732
MassMutual Core Bond Fund, Class I (a)	61,744	548,906
MassMutual High Yield Fund, Class I (a)	64,278	478,872
MassMutual Strategic Bond Fund, Class I (b)	121,446	1,035,937
MassMutual Total Return Bond Fund, Class I (a)	123,430	1,033,110
Vanguard Total Bond Market Index Fund, Admiral Shares	14,674	139,111
		<u>5,665,293</u>
TOTAL MUTUAL FUNDS		
(Cost \$69,089,364)		<u>57,499,605</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$69,089,364)		<u>57,499,605</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$69,089,364) (c)		57,499,605
Other Assets/(Liabilities) — (0.1)%		<u>(48,696)</u>
NET ASSETS — 100.0%		<u><u>\$ 57,450,909</u></u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MassMutual RetireSMARTsm by JPMorgan 2060 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 99.9%		
Equity Funds — 90.1%		
JPMorgan Emerging Markets Research Enhanced Equity Fund, Class R6	78,186	\$ 1,148,551
JPMorgan Large Cap Value Fund, Class R6	30,436	546,318
MassMutual Blue Chip Growth Fund, Class I (a)	74,847	1,217,019
MassMutual Diversified Value Fund, Class I (a)	43,113	475,107
MassMutual Equity Opportunities Fund, Class I (a)	49,877	807,511
MassMutual Fundamental Value Fund, Class I (a)	67,962	566,123
MassMutual Growth Opportunities Fund, Class I (a)	96,861	403,910
MassMutual International Equity Fund, Class I (a)	135,919	1,058,808
MassMutual Mid Cap Growth Fund, Class I (a)	20,554	359,075
MassMutual Mid Cap Value Fund, Class I (a)	32,534	351,371
MassMutual Overseas Fund, Class I (a)	231,146	1,733,595
MassMutual Small Cap Growth Equity Fund, Class I (a)	19,436	243,337
MassMutual Small Cap Value Equity Fund, Class I (a)	38,604	325,428
MassMutual Strategic Emerging Markets Fund, Class I (a)	68,109	619,790
MM Equity Asset Fund, Class I (a)	623,814	4,029,838
Vanguard Developed Markets Index Fund, Admiral Shares	116,374	1,573,372
Vanguard Mid-Cap Index Fund, Admiral Shares	1,265	319,354
Vanguard Real Estate Index Fund, Admiral Shares	4,446	519,653
Vanguard Small-Cap Index Fund, Admiral Shares	2,977	261,791
		<u>16,559,951</u>
Fixed Income Funds — 9.8%		
JPMorgan Emerging Markets Debt Fund, Class R6	11,411	67,438
JPMorgan U.S. Government Money Market Fund, Class IM	707,959	707,959
MassMutual Core Bond Fund, Class I (a)	19,741	175,499
MassMutual High Yield Fund, Class I (a)	20,531	152,960
MassMutual Strategic Bond Fund, Class I (b)	38,851	331,397
MassMutual Total Return Bond Fund, Class I (a)	39,472	330,380
Vanguard Total Bond Market Index Fund, Admiral Shares	4,835	45,837
		<u>1,811,470</u>
TOTAL MUTUAL FUNDS		
(Cost \$21,718,170)		<u>18,371,421</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$21,718,170)		<u>18,371,421</u>
TOTAL INVESTMENTS — 99.9%		
(Cost \$21,718,170) (c)		18,371,421
Other Assets/(Liabilities) — 0.1%		<u>17,089</u>
NET ASSETS — 100.0%		<u>\$ 18,388,510</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) Non-income producing security.

(c) See Note 3 for aggregate cost for federal tax purposes.

MM Equity Asset Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 98.4%		
COMMON STOCK — 98.4%		
Basic Materials — 2.3%		
Chemicals — 2.0%		
Air Products & Chemicals, Inc.	2,105	\$ 648,887
Celanese Corp.	2,183	223,190
DuPont de Nemours, Inc.	8,671	595,091
Eastman Chemical Co.	11,746	956,594
Linde PLC	8,198	2,674,024
PPG Industries, Inc.	10,495	1,319,641
		<u>6,417,427</u>
Iron & Steel — 0.2%		
Nucor Corp.	3,655	481,766
Mining — 0.1%		
Freeport-McMoRan, Inc.	11,798	448,324
		<u>7,347,517</u>
Communications — 10.6%		
Internet — 8.4%		
Alphabet, Inc. Class A (a)	72,108	6,362,089
Alphabet, Inc. Class C (a)	52,490	4,657,438
Amazon.com, Inc. (a)	96,530	8,108,520
Booking Holdings, Inc. (a)	945	1,904,440
Expedia Group, Inc. (a)	7,951	696,508
Meta Platforms, Inc. Class A (a)	26,990	3,247,976
Netflix, Inc. (a)	5,929	1,748,343
Uber Technologies, Inc. (a)	10,603	262,212
		<u>26,987,526</u>
Media — 1.4%		
Charter Communications, Inc. Class A (a)	4,361	1,478,815
Comcast Corp. Class A	71,021	2,483,605
The Walt Disney Co. (a)	5,714	496,432
		<u>4,458,852</u>
Telecommunications — 0.8%		
Corning, Inc.	8,827	281,934
Motorola Solutions, Inc.	2,934	756,121
T-Mobile US, Inc. (a)	11,160	1,562,400
Verizon Communications, Inc.	1,996	78,643
		<u>2,679,098</u>
		<u>34,125,476</u>

MM Equity Asset Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Consumer, Cyclical — 8.5%		
Airlines — 0.1%		
Southwest Airlines Co. (a)	7,243	\$ 243,872
Apparel — 0.6%		
NIKE, Inc. Class B	15,877	1,857,768
Auto Manufacturers — 1.0%		
Rivian Automotive, Inc. Class A (a)	3,057	56,341
Tesla, Inc. (a)	26,308	3,240,619
		3,296,960
Auto Parts & Equipment — 0.2%		
Magna International, Inc. (b)	8,600	483,148
Home Builders — 0.4%		
Lennar Corp. Class A	11,078	1,002,559
Toll Brothers, Inc.	7,646	381,688
		1,384,247
Leisure Time — 0.0%		
Royal Caribbean Cruises Ltd. (a)	2,082	102,913
Lodging — 0.3%		
Marriott International, Inc. Class A	6,522	971,060
Retail — 5.9%		
AutoNation, Inc. (a)	4,377	469,652
AutoZone, Inc. (a)	644	1,588,220
Best Buy Co., Inc.	14,463	1,160,077
Burlington Stores, Inc. (a)	2,989	606,050
Chipotle Mexican Grill, Inc. (a)	1,018	1,412,465
Costco Wholesale Corp.	5,251	2,397,082
Domino's Pizza, Inc.	1,001	346,746
The Home Depot, Inc.	6,240	1,970,966
Lowe's Cos., Inc.	16,742	3,335,676
McDonald's Corp.	7,010	1,847,345
O'Reilly Automotive, Inc. (a)	1,673	1,412,062
Target Corp.	2,966	442,053
The TJX Cos., Inc.	13,038	1,037,825
Ulta Beauty, Inc. (a)	530	248,607
Yum! Brands, Inc.	4,422	566,370
		18,841,196
		27,181,164
Consumer, Non-cyclical — 22.3%		
Agriculture — 0.8%		
Altria Group, Inc.	23,346	1,067,146
Philip Morris International, Inc.	14,996	1,517,745
		2,584,891
Beverages — 2.2%		
The Coca-Cola Co.	63,989	4,070,340
Constellation Brands, Inc. Class A	5,993	1,388,878

MM Equity Asset Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
PepsiCo, Inc.	8,068	\$ 1,457,565
		<u>6,916,783</u>
Biotechnology — 1.7%		
Biogen, Inc. (a)	3,928	1,087,742
BioMarin Pharmaceutical, Inc. (a)	3,072	317,921
Regeneron Pharmaceuticals, Inc. (a)	2,773	2,000,692
Sarepta Therapeutics, Inc. (a)	2,357	305,420
Vertex Pharmaceuticals, Inc. (a)	5,871	1,695,427
		<u>5,407,202</u>
Commercial Services — 1.2%		
Affirm Holdings, Inc. (a) (b)	11,225	108,546
Block, Inc. (a)	2,710	170,296
Booz Allen Hamilton Holding Corp.	2,929	306,139
Cintas Corp.	1,010	456,136
FleetCor Technologies, Inc. (a)	5,963	1,095,284
S&P Global, Inc.	4,722	1,581,587
		<u>3,717,988</u>
Cosmetics & Personal Care — 1.6%		
Colgate-Palmolive Co.	24,843	1,957,380
The Procter & Gamble Co.	20,581	3,119,256
		<u>5,076,636</u>
Food — 0.4%		
The Hershey Co.	1,774	410,805
Mondelez International, Inc. Class A	15,190	1,012,414
		<u>1,423,219</u>
Health Care – Products — 4.3%		
Abbott Laboratories	15,599	1,712,614
Baxter International, Inc.	21,338	1,087,598
Boston Scientific Corp. (a)	33,446	1,547,546
Danaher Corp.	7,282	1,932,789
Intuitive Surgical, Inc. (a)	7,350	1,950,323
Medtronic PLC	16,049	1,247,328
Thermo Fisher Scientific, Inc.	6,973	3,839,961
Zimmer Biomet Holdings, Inc.	3,383	431,333
		<u>13,749,492</u>
Health Care – Services — 3.3%		
Centene Corp. (a)	17,883	1,466,585
Elevance Health, Inc.	4,074	2,089,840
Humana, Inc.	1,515	775,968
Town Health International Medical Group Ltd.	62,000	3,020
UnitedHealth Group, Inc.	12,050	6,388,669
		<u>10,724,082</u>
Household Products & Wares — 0.5%		
Avery Dennison Corp.	2,345	424,445

MM Equity Asset Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Kimberly-Clark Corp.	8,557	\$ 1,161,613
		<u>1,586,058</u>
Pharmaceuticals — 6.3%		
AbbVie, Inc.	29,102	4,703,174
Bristol-Myers Squibb Co.	45,667	3,285,741
CVS Health Corp.	2,284	212,846
DexCom, Inc. (a)	3,855	436,540
Eli Lilly & Co.	10,122	3,703,032
Johnson & Johnson	17,697	3,126,175
McKesson Corp.	2,460	922,795
Merck & Co., Inc.	21,921	2,432,135
Neurocrine Biosciences, Inc. (a)	2,872	343,032
Pfizer, Inc.	22,096	1,132,199
		<u>20,297,669</u>
		<u>71,484,020</u>
Energy — 5.2%		
Oil & Gas — 5.0%		
Chevron Corp.	7,856	1,410,073
ConocoPhillips	28,942	3,415,156
Coterra Energy, Inc.	23,321	572,997
Diamondback Energy, Inc.	14,320	1,958,690
EOG Resources, Inc.	15,723	2,036,443
Exxon Mobil Corp.	55,697	6,143,379
Phillips 66	5,109	531,745
		<u>16,068,483</u>
Oil & Gas Services — 0.2%		
Baker Hughes Co.	17,567	518,753
		<u>16,587,236</u>
Financial — 16.2%		
Banks — 4.6%		
Bank of America Corp.	79,899	2,646,255
Citigroup, Inc.	19,198	868,326
Fifth Third Bancorp	32,453	1,064,783
Morgan Stanley	16,651	1,415,668
State Street Corp.	8,432	654,070
SVB Financial Group (a)	959	220,704
Truist Financial Corp.	42,309	1,820,556
US Bancorp	60,569	2,641,414
Wells Fargo & Co.	82,797	3,418,688
		<u>14,750,464</u>
Diversified Financial Services — 5.4%		
American Express Co.	19,404	2,866,941
Ameriprise Financial, Inc.	2,770	862,495
Capital One Financial Corp.	2,776	258,057
CME Group, Inc.	8,144	1,369,495
Intercontinental Exchange, Inc.	14,789	1,517,203
Mastercard, Inc. Class A	15,534	5,401,638
Raymond James Financial, Inc.	7,802	833,644

MM Equity Asset Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Visa, Inc. Class A	20,261	\$ 4,209,425
		<u>17,318,898</u>
Insurance — 3.6%		
Aon PLC Class A	2,385	715,834
Berkshire Hathaway, Inc. Class B (a)	16,080	4,967,112
Globe Life, Inc.	4,058	489,192
The Progressive Corp.	21,494	2,787,987
Prudential Financial, Inc.	3,710	368,997
The Travelers Cos., Inc.	12,021	2,253,817
		<u>11,582,939</u>
Real Estate Investment Trusts (REITS) — 2.6%		
Camden Property Trust	2,615	292,566
Equinix, Inc.	1,463	958,309
Equity LifeStyle Properties, Inc.	9,029	583,273
Host Hotels & Resorts, Inc.	8,489	136,248
Prologis, Inc.	20,082	2,263,844
SBA Communications Corp.	5,602	1,570,297
Sun Communities, Inc.	5,233	748,319
UDR, Inc.	19,105	739,937
Ventas, Inc.	24,783	1,116,474
		<u>8,409,267</u>
		<u>52,061,568</u>
Industrial — 8.6%		
Aerospace & Defense — 1.2%		
General Dynamics Corp.	1,616	400,946
Howmet Aerospace, Inc.	4,453	175,492
Raytheon Technologies Corp.	31,790	3,208,247
		<u>3,784,685</u>
Building Materials — 0.4%		
Martin Marietta Materials, Inc.	1,465	495,126
Masco Corp.	15,467	721,845
		<u>1,216,971</u>
Electronics — 1.3%		
Honeywell International, Inc.	17,612	3,774,251
TE Connectivity Ltd.	3,272	375,626
		<u>4,149,877</u>
Machinery - Diversified — 1.5%		
Deere & Co.	6,274	2,690,040
Dover Corp.	5,281	715,100
Ingersoll Rand, Inc.	3,892	203,357
Otis Worldwide Corp.	15,782	1,235,889
		<u>4,844,386</u>
Miscellaneous - Manufacturing — 2.2%		
Eaton Corp. PLC	12,452	1,954,342
Parker-Hannifin Corp.	5,798	1,687,218

MM Equity Asset Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Textron, Inc.	16,830	\$ 1,191,564
Trane Technologies PLC	12,615	2,120,455
		<u>6,953,579</u>
Transportation — 2.0%		
CSX Corp.	20,538	636,267
Norfolk Southern Corp.	6,881	1,695,616
Union Pacific Corp.	5,806	1,202,248
United Parcel Service, Inc. Class B	17,627	3,064,278
		<u>6,598,409</u>
		<u>27,547,907</u>
Technology — 21.6%		
Computers — 7.6%		
Accenture PLC Class A	10,728	2,862,659
Apple, Inc.	148,529	19,298,373
Fortinet, Inc. (a)	6,779	331,425
Leidos Holdings, Inc.	8,408	884,438
Seagate Technology Holdings PLC	18,937	996,276
		<u>24,373,171</u>
Semiconductors — 5.7%		
Advanced Micro Devices, Inc. (a)	27,869	1,805,075
Analog Devices, Inc.	15,649	2,566,905
Broadcom, Inc.	1,048	585,968
Lam Research Corp.	5,686	2,389,826
Microchip Technology, Inc.	12,551	881,708
Micron Technology, Inc.	5,667	283,237
NVIDIA Corp.	20,845	3,046,288
NXP Semiconductor NV	14,888	2,352,751
QUALCOMM, Inc.	3,820	419,971
Teradyne, Inc.	5,087	444,349
Texas Instruments, Inc.	20,600	3,403,532
		<u>18,179,610</u>
Software — 8.3%		
Adobe, Inc. (a)	7,151	2,406,526
Cadence Design Systems, Inc. (a)	2,606	418,628
DocuSign, Inc. (a)	6,557	363,389
Intuit, Inc.	5,067	1,972,178
Microsoft Corp.	81,487	19,542,212
Oracle Corp.	10,872	888,677
Salesforce, Inc. (a)	1,454	192,786
Workday, Inc. Class A (a)	4,288	717,511
ZoomInfo Technologies, Inc. (a)	7,960	239,676
		<u>26,741,583</u>
		<u>69,294,364</u>
Utilities — 3.1%		
Electric — 3.1%		
Ameren Corp.	9,907	880,931
CenterPoint Energy, Inc.	32,660	979,474

MM Equity Asset Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
FirstEnergy Corp.	11,627	\$ 487,636
NextEra Energy, Inc.	44,750	3,741,100
PG&E Corp. (a)	76,139	1,238,020
Public Service Enterprise Group, Inc.	18,538	1,135,823
Sempra Energy	10,582	1,635,342
		<u>10,098,326</u>
		<u>10,098,326</u>
TOTAL COMMON STOCK (Cost \$282,379,692)		<u>315,727,578</u>
TOTAL EQUITIES (Cost \$282,379,692)		<u>315,727,578</u>
RIGHTS — 0.0% Consumer, Non-cyclical — 0.0% Biotechnology — 0.0% Tobira Therapeutics Inc.,CVR (a) (c) (d)	505	<u>—</u>
TOTAL RIGHTS (Cost \$30)		<u>—</u>
MUTUAL FUNDS — 0.0% Diversified Financial Services — 0.0% State Street Navigator Securities Lending Government Money Market Portfolio (e)	107,700	<u>107,700</u>
TOTAL MUTUAL FUNDS (Cost \$107,700)		<u>107,700</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$282,487,422)		<u>315,835,278</u>
	Principal Amount	
SHORT-TERM INVESTMENTS — 1.7% Repurchase Agreement — 1.7% Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (f)	\$ 5,309,630	<u>5,309,630</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$5,309,630)		<u>5,309,630</u>
TOTAL INVESTMENTS — 100.1% (Cost \$287,797,052) (g)		321,144,908
Other Assets/(Liabilities) — (0.1)%		<u>(309,327)</u>
NET ASSETS — 100.0%		<u>\$ 320,835,581</u>

Abbreviation Legend

CVR Contingent Value Rights

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Non-income producing security.
- (b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$595,132 or 0.19% of net assets. The Fund received \$504,007 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. *(Note 2)*.
- (c) Investment is valued using significant unobservable inputs.
- (d) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$0 or 0.00% of net assets.
- (e) Represents investment of security lending cash collateral. *(Note 2)*.
- (f) Maturity value of \$5,310,385. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$5,415,890.
- (g) See Note 3 for aggregate cost for federal tax purposes.

Futures contracts

	Expiration Date	Number of Contracts	Notional Amount	Value/ Net Unrealized Appreciation/ (Depreciation)
Long				
S&P 500 E Mini Index	3/17/23	28	\$ 5,522,477	\$ (117,077)

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	<u>Principal Amount</u>	<u>Value</u>
BONDS & NOTES — 96.6%		
BANK LOANS — 0.9%		
Advertising — 0.1%		
Lamar Media Corp., 2020 Term Loan B, 1 mo. USD LIBOR + 1.500%		
5.861% VRN 2/05/27	\$ 305,000	\$ <u>294,801</u>
Aerospace & Defense — 0.0%		
TransDigm, Inc.		
2020 Term Loan G, 3 mo. USD LIBOR + 2.250%		
7.830% VRN 8/22/24	94,191	93,249
2022 Term Loan H, 3 mo. USD SOFR CME + 2.250%		
7.830% VRN 2/22/27	25,000	<u>24,878</u>
		<u>118,127</u>
Airlines — 0.0%		
American Airlines, Inc., 2021 Term Loan, 3 mo. USD LIBOR + 4.750%		
8.993% VRN 4/20/28	85,000	84,535
Mileage Plus Holdings LLC, 2020 Term Loan B, 3 mo. USD LIBOR + 5.250%		
9.996% VRN 6/21/27	92,842	<u>95,372</u>
		<u>179,907</u>
Auto Parts & Equipment — 0.0%		
Clarios Global LP, 2021 USD Term Loan B, 1 mo. USD LIBOR + 3.250%		
7.634% VRN 4/30/26	83,229	<u>81,392</u>
Cosmetics & Personal Care — 0.0%		
Sunshine Luxembourg VII SARL, 2021 Term Loan B3, 3 mo. USD LIBOR + 3.750%		
8.480% VRN 10/01/26	114,120	<u>109,111</u>
Entertainment — 0.1%		
Formula One Holdings Ltd., Term Loan B, 3 mo. USD SOFR CME + 3.250%		
7.573% VRN 1/15/30	240,000	239,700
UFC Holdings LLC, 2021 Term Loan B, 3 mo. USD LIBOR + 2.750%		
7.110% VRN 4/29/26	269,060	<u>265,175</u>
		<u>504,875</u>
Environmental Controls — 0.1%		
Filtration Group Corp., 2018 1st Lien Term Loan, 1 mo. USD LIBOR + 3.000%		
7.384% VRN 3/29/25	396,374	391,586
Madison IAQ LLC, Term Loan, 3 mo. USD LIBOR + 3.250%		
7.988% VRN 6/21/28	83,039	<u>77,071</u>
		<u>468,657</u>

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
Health Care – Products — 0.0%		
Maravai Intermediate Holdings LLC, 2022 Term Loan B, 3 mo. USD SOFR + 3.000% 6.955% VRN 10/19/27	\$ 124,844	\$ 122,347
Health Care – Services — 0.0%		
Surgery Center Holdings, Inc., 2021 Term Loan, 3 mo. USD LIBOR + 3.750% 8.050% VRN 8/31/26	90,591	89,335
Insurance — 0.2%		
Asurion LLC		
2018 Term Loan B7, 1 mo. USD LIBOR + 3.000% 7.384% VRN 11/03/24	170,610	165,340
2021 Second Lien Term Loan B4, 1 mo. USD LIBOR + 5.250% 9.634% VRN 1/20/29	230,000	177,758
Hub International Ltd.		
2021 Term Loan B, 3 mo. USD LIBOR + 3.250%, 3 mo. USD LIBOR + 7.232% 7.528% VRN 4/25/25	483,166	478,223
2022 Term Loan B, 3 mo. USD SOFR CME + 4.000% 8.220% VRN 11/10/29	25,000	24,701
		846,022
Machinery – Construction & Mining — 0.0%		
Brookfield WEC Holdings, Inc., 2021 Term Loan, 1 mo. USD LIBOR + 2.750% 7.134% VRN 8/01/25	91,074	89,660
Packaging & Containers — 0.0%		
Charter NEX US, Inc., 2021 Term Loan, 1 mo. USD LIBOR + 3.750% 8.134% VRN 12/01/27	117,149	113,598
Pharmaceuticals — 0.1%		
Gainwell Acquisition Corp., Term Loan B, 3 mo. USD LIBOR + 4.000% 8.730% VRN 10/01/27	140,281	131,338
PetVet Care Centers LLC, 2021 Term Loan B3, 1 mo. USD LIBOR + 3.500% 7.884% VRN 2/14/25	104,539	97,959
		229,297
Retail — 0.0%		
WOOF Holdings, Inc., 1st Lien Term Loan, 1 mo. USD LIBOR + 3.750% 8.104% VRN 12/21/27	41,452	38,896
Software — 0.3%		
Applied Systems, Inc., 2017 1st Lien Term Loan, 3 mo. USD LIBOR + 3.000% 9.080% VRN 9/19/24 (a)	482,227	480,120
Ascend Learning LLC, 2021 Term Loan, 1 mo. USD LIBOR + 3.500% 7.884% VRN 12/11/28	97,867	92,362
Athenahealth, Inc.		
2022 Delayed Draw Term Loan, 3 mo. USD SOFR CME + 3.500%, 3 mo. USD SOFR CME + 3.500% 7.821% VRN 2/15/29 (b)	15,903	14,319
2022 Term Loan B, 1 mo. USD SOFR + 3.500% 7.821% VRN 2/15/29	93,360	84,057
Epicor Software Corp., 2020 Term Loan, 1 mo. USD LIBOR + 3.250% 7.634% VRN 7/30/27	99,901	95,723

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
RealPage, Inc., 1st Lien Term Loan, 1 mo. USD LIBOR + 3.000% 7.384% VRN 4/24/28	\$ 86,462	\$ 82,053
The Ultimate Software Group, Inc. 2021 Term Loan, 3 mo. USD LIBOR + 3.250% 6.998% VRN 5/04/26	618,142	587,234
2021 2nd Lien Term Loan, 1 mo. USD LIBOR + 5.250% 8.998% VRN 5/03/27	95,000	86,972
		<u>1,522,840</u>
Telecommunications — 0.0%		
Intelsat Jackson Holdings S.A., 2021 Exit Term Loan B, 6 mo. USD SOFRTE + 7.500% 7.445% VRN 2/01/29	516	497
TOTAL BANK LOANS (Cost \$4,993,447)		<u>4,809,362</u>
CORPORATE DEBT — 26.1%		
Advertising — 0.0%		
Lamar Media Corp. 4.875% 1/15/29	80,000	73,454
Agriculture — 0.5%		
BAT Capital Corp. 3.557% 8/15/27	770,000	703,425
4.906% 4/02/30	470,000	431,359
BAT International Finance PLC 1.668% 3/25/26	205,000	181,643
3.950% 6/15/25 (c)	786,000	755,431
Bunge Finance Europe BV 1.850% 6/16/23 EUR (d)	220,000	233,987
Darling Ingredients, Inc. 6.000% 6/15/30 (c)	55,000	53,762
Philip Morris International, Inc. 5.625% 11/17/29	125,000	127,184
Reynolds American, Inc. 4.450% 6/12/25	290,000	283,860
		<u>2,770,651</u>
Airlines — 0.2%		
American Airlines, Inc. 11.750% 7/15/25 (c)	50,000	53,624
American Airlines, Inc. /AAdvantage Loyalty IP Ltd. 5.500% 4/20/26 (c)	60,000	57,683
5.750% 4/20/29 (c)	70,000	63,853
Mileage Plus Holdings LLC / Mileage Plus Intellectual Property Assets Ltd. 6.500% 6/20/27 (c)	472,530	469,791
United Airlines Pass Through Trust 2.900% 11/01/29	140,621	112,972
2.700% 11/01/33	88,452	71,527
		<u>829,450</u>
Apparel — 0.0%		
Wolverine World Wide, Inc. 4.000% 8/15/29 (c) (e)	90,000	68,180

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Auto Manufacturers — 1.3%		
American Honda Finance Corp.		
0.750% 11/25/26 GBP (d)	\$ 130,000	\$ 134,278
1.950% 10/18/24 EUR (d)	200,000	208,319
BMW Finance NV		
0.000% 3/24/23 EUR (c) (d)	117,000	124,612
0.000% 4/14/23 EUR (c) (d)	84,000	89,342
Ford Motor Co.		
6.100% 8/19/32 (e)	105,000	97,138
9.625% 4/22/30	85,000	96,155
Ford Motor Credit Co. LLC		
4.950% 5/28/27	265,000	247,219
7.350% 11/04/27	200,000	204,940
General Motors Co.		
4.200% 10/01/27 (e)	290,000	273,124
5.600% 10/15/32	135,000	126,121
General Motors Financial Co., Inc.		
0.850% 2/26/26 EUR (c) (d)	150,000	143,631
0.955% 9/07/23 EUR (c) (d)	110,000	116,007
4.000% 10/06/26	620,000	584,146
4.350% 4/09/25	600,000	584,154
Hyundai Capital America		
1.800% 10/15/25 (c)	300,000	269,404
2.100% 9/15/28 (c)	470,000	385,448
Mercedes-Benz International Finance BV		
0.625% 2/27/23 EUR (c) (d)	112,000	119,535
0.750% 5/11/23 EUR (c) (d)	80,000	85,083
RCI Banque SA		
0.250% 3/08/23 EUR (c) (d)	55,000	58,586
0.750% 4/10/23 EUR (c) (d)	68,000	72,440
Stellantis NV		
2.375% 4/14/23 EUR (c) (d)	53,000	56,564
Toyota Motor Credit Corp.		
2.375% 2/01/23 EUR (c) (d)	81,000	86,722
Volkswagen Bank GmbH		
0.750% 6/15/23 EUR (c) (d)	80,000	84,752
2.500% 7/31/26 EUR (c) (d)	700,000	698,727
Volkswagen Financial Services AG		
0.875% 4/12/23 EUR (c) (d)	72,000	76,641
2.500% 4/06/23 EUR (c) (d)	67,000	71,658
Volkswagen Group of America Finance LLC		
3.200% 9/26/26 (c)	1,320,000	1,225,406
4.600% 6/08/29 (c)	215,000	203,488
Volkswagen International Finance NV		
0.875% 1/16/23 EUR (c) (d)	120,000	128,351
Volkswagen Leasing GmbH		
1.500% 6/19/26 EUR (c) (d)	145,000	140,783
1.625% 8/15/25 EUR (c) (d)	150,000	151,066
		<u>6,943,840</u>
Auto Parts & Equipment — 0.0%		
Clarios Global LP / Clarios US Finance Co.		
6.250% 5/15/26 (c)	75,000	73,284
Continental AG		
0.000% 9/12/23 EUR (c) (d)	45,000	47,211

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
The Goodyear Tire & Rubber Co. 5.000% 7/15/29 (e)	\$ 140,000	\$ 116,781
		237,276
Banks — 8.6%		
ABN AMRO Bank NV 2.500% 11/29/23 EUR (c) (d)	114,000	121,637
Arion Banki HF 1.000% 3/20/23 EUR (c) (d)	150,000	159,816
Banco Bilbao Vizcaya Argentaria SA 1 year CMT + 2.300% 5.862% VRN 9/14/26	400,000	399,659
Banco de Bogota SA 6.250% 5/12/26 (c)	250,000	245,000
Banco de Credito del Peru SA 5 year CMT + 3.000% 3.125% VRN 7/01/30 (c)	200,000	181,000
Banco de Sabadell SA 0.875% 3/05/23 EUR (c) (d)	300,000	320,044
1 year EURIBOR ICE Swap + 1.150% 0.875% VRN 6/16/28 EUR (c) (d)	200,000	172,247
Banco Santander SA 1.125% 1/17/25 EUR (c) (d)	200,000	203,542
2.746% 5/28/25	1,200,000	1,123,130
3.490% 5/28/30	200,000	169,124
1 year CMT + 2.000% 4.175% VRN 3/24/28	200,000	185,765
Bangkok Bank PCL 5 year CMT + 1.900% 3.733% VRN 9/25/34 (c)	250,000	208,870
Bank Hapoalim BM 5 year CMT + 2.155% 3.255% VRN 1/21/32 (c)	200,000	172,096
Bank of America Corp. 0.750% 7/26/23 EUR (c) (d)	110,000	116,536
SOFR + .960% 1.734% VRN 7/22/27	585,000	512,836
SOFR + 1.530% 1.898% VRN 7/23/31	1,312,000	1,010,081
SOFR + 1.220% 2.299% VRN 7/21/32	935,000	722,677
2.375% 6/19/24 EUR (c) (d)	150,000	158,623
2.375% 6/19/24 EUR (c) (d)	150,000	158,623
3 mo. USD LIBOR + .990% 2.496% VRN 2/13/31	1,735,000	1,414,240
SOFR + 2.150% 2.592% VRN 4/29/31	585,000	477,844
3 mo. USD LIBOR + 1.040% 3.419% VRN 12/20/28	55,000	49,808
3 mo. USD LIBOR + 1.060% 3.559% VRN 4/23/27	495,000	464,321
4.250% 10/22/26	302,000	292,121
Bank of Ireland Group PLC 1 year CMT + 2.650% 6.253% VRN 9/16/26 (c)	355,000	352,154
Banque Federative du Credit Mutuel SA 0.750% 6/15/23 EUR (c) (d)	100,000	106,219
Barclays PLC 1 year CMT + 1.050% 2.279% VRN 11/24/27	295,000	255,598
SOFR + 2.714% 2.852% VRN 5/07/26	670,000	623,053
3 mo. USD LIBOR + 1.610% 3.932% VRN 5/07/25	475,000	460,791
1 year CMT + 2.650% 5.501% VRN 8/09/28	225,000	218,260
BBVA Bancomer SA 5 year CMT + 2.650% 5.125% VRN 1/18/33 (c)	300,000	269,308
BNP Paribas SA SOFR + 1.004% 1.323% VRN 1/13/27 (c)	890,000	777,629
3 mo. EURIBOR + 1.800% 2.125% VRN 1/23/27 EUR (c) (d)	200,000	199,833
SOFR + 1.228% 2.591% VRN 1/20/28 (c)	680,000	599,019
2.875% 9/26/23 EUR (c) (d)	153,000	163,795
4.500% 3/21/23 EUR (c) (d)	157,000	168,857
BPCE SA		

0.375% 10/05/23 EUR (c) (d)

100,000

105,149

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.625% 7/18/23 EUR (c) (d)	\$ 100,000	\$ 107,920
CaixaBank SA		
1.125% 1/12/23 EUR (c) (d)	100,000	106,953
1.125% 5/17/24 EUR (c) (d)	100,000	103,642
1.750% 10/24/23 EUR (c) (d)	100,000	105,775
5 year EUR Swap + 2.350% 2.750% VRN 7/14/28 EUR (c) (d)	200,000	209,960
Citigroup, Inc.		
0.750% 10/26/23 EUR (c) (d)	110,000	115,848
SOFR + 1.167% 2.561% VRN 5/01/32	300,000	237,618
SOFR + 1.280% 3.070% VRN 2/24/28	570,000	514,599
SOFR + 2.842% 3.106% VRN 4/08/26	475,000	449,170
SOFR + 1.546% 5.610% VRN 9/29/26	630,000	631,736
Commerzbank AG		
0.500% 8/28/23 EUR (c) (d)	142,000	149,816
Cooperatieve Rabobank UA		
0.750% 8/29/23 EUR (c) (d)	100,000	105,758
2.375% 5/22/23 EUR (c) (d)	130,000	139,075
3.875% 7/25/23 EUR (c) (d)	118,000	126,847
4.625% 5/23/29 GBP (c) (d)	150,000	165,367
Credit Agricole SA		
1.000% 9/16/24 EUR (c) (d)	200,000	206,006
Credit Suisse AG		
1.000% 6/07/23 EUR (c) (d)	111,000	116,715
Credit Suisse Group AG 1 year GBP Swap + 1.230%		
2.125% VRN 9/12/25 GBP (c) (d)	250,000	268,981
Danske Bank A/S		
0.875% 5/22/23 EUR (c) (d)	110,000	116,754
5 year EUR Swap + 1.700% 1.375% VRN 2/12/30 EUR (c) (d)	200,000	195,657
3 mo. USD LIBOR + 1.591% 3.244% VRN 12/20/25 (c)	1,040,000	973,865
1 year CMT + 1.450% 3.773% VRN 3/28/25 (c)	355,000	344,116
3.875% 9/12/23 (c)	5,000	4,937
5.375% 1/12/24 (c)	200,000	198,398
Deutsche Bank AG		
1.125% 8/30/23 EUR (c) (d)	114,000	120,664
2.375% 1/11/23 EUR (c) (d)	100,000	107,051
Discover Bank		
4.650% 9/13/28	405,000	380,077
DNB Bank ASA		
0.050% 11/14/23 EUR (c) (d)	109,000	113,706
Fifth Third Bancorp SOFR + 2.127%		
4.772% VRN 7/28/30	140,000	133,812
The Goldman Sachs Group, Inc.		
1.375% 5/15/24 EUR (c) (d)	40,000	41,879
SOFR + .818% 1.542% VRN 9/10/27	605,000	522,568
1.625% 7/27/26 EUR (c) (d)	140,000	139,714
2.000% 7/27/23 EUR (c) (d)	130,000	138,657
SOFR + 1.248% 2.383% VRN 7/21/32	510,000	397,054
SOFR + 1.281% 2.615% VRN 4/22/32	250,000	199,513
SOFR + 1.264% 2.650% VRN 10/21/32	520,000	411,988
3.250% 2/01/23 EUR (c) (d)	134,000	143,520
3.500% 11/16/26	385,000	361,268
SOFR + 1.846% 3.615% VRN 3/15/28	550,000	511,843
SOFR + 1.725% 4.482% VRN 8/23/28	335,000	322,110
HSBC Continental Europe SA		
0.600% 3/20/23 EUR (c) (d)	100,000	106,678
HSBC Holdings PLC		

SOFR + 1.538% 1.645% VRN 4/18/26	940,000	850,147
SOFR + 1.929% 2.099% VRN 6/04/26	610,000	556,192

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
SOFR + 1.430% 2.999% VRN 3/10/26	\$ 560,000	\$ 526,703
SOFR + 2.110% 4.755% VRN 6/09/28	970,000	918,188
SOFR + 2.610% 5.210% VRN 8/11/28	440,000	425,127
ING Groep NV		
1.000% 9/20/23 EUR (c) (d)	100,000	105,504
SOFR + 1.005% 1.726% VRN 4/01/27	260,000	229,707
Intesa Sanpaolo SpA		
1.000% 7/04/24 EUR (c) (d)	300,000	308,677
2.125% 8/30/23 EUR (c) (d)	114,000	121,512
JP Morgan Chase & Co.		
SOFR + .885% 1.578% VRN 4/22/27	630,000	554,481
3 mo. TSFR + 1.105% 1.764% VRN 11/19/31	955,000	726,294
SOFR + 1.890% 2.182% VRN 6/01/28	675,000	591,111
SOFR + 1.510% 2.739% VRN 10/15/30	445,000	374,193
2.750% 2/01/23 EUR (c) (d)	114,000	122,092
SOFR + 1.170% 2.947% VRN 2/24/28	570,000	516,794
SOFR + 2.515% 2.956% VRN 5/13/31	1,730,000	1,429,590
SOFR + 1.800% 4.586% VRN 4/26/33	100,000	92,888
SOFR + 2.080% 4.912% VRN 7/25/33	805,000	770,130
SOFR + 2.580% 5.717% VRN 9/14/33 (e)	340,000	334,336
KBC Group NV		
0.750% 10/18/23 EUR (c) (d)	100,000	105,358
Kreditanstalt fuer Wiederaufbau		
4.700% 6/02/37 CAD (d)	75,000	57,402
4.700% 6/02/37 CAD (d)	65,000	49,748
Landsbankinn HF		
0.375% 5/23/25 EUR (c) (d)	265,000	242,115
1.000% 5/30/23 EUR (c) (d)	100,000	105,749
Mitsubishi UFJ Financial Group, Inc. 1 year CMT + 1.900%		
5.354% VRN 9/13/28	430,000	426,334
Morgan Stanley		
3 mo. EURIBOR + .698% 0.406% VRN 10/29/27 EUR (d)	100,000	92,389
3 mo. EURIBOR + .753% 0.637% VRN 7/26/24 EUR (d)	100,000	105,309
SOFR + .858% 1.512% VRN 7/20/27	730,000	634,279
SOFR + .879% 1.593% VRN 5/04/27	670,000	588,441
1.875% 3/30/23 EUR (d)	113,000	120,753
SOFR + 1.178% 2.239% VRN 7/21/32	460,000	352,855
SOFR + 1.485% 3.217% VRN 4/22/42	165,000	122,355
SOFR + 2.076% 4.889% VRN 7/20/33	100,000	94,256
National Australia Bank Ltd.		
0.625% 11/10/23 EUR (c) (d)	56,000	58,948
The Nationale-Nederlanden Bank NV		
0.375% 2/26/25 EUR (c) (d)	100,000	99,116
Natwest Group PLC		
2.500% 3/22/23 EUR (c) (d)	114,000	122,053
1 year CMT + 2.850% 7.472% VRN 11/10/26	235,000	244,755
Nordea Bank Abp		
1.000% 2/22/23 EUR (c) (d)	111,000	118,627
5.375% 9/22/27 (c)	320,000	322,004
The PNC Financial Services Group, Inc.		
2.550% 1/22/30	145,000	123,419
QNB Finance Ltd.		
2.750% 2/12/27 (c)	200,000	183,580
Santander Holdings SOFR + 1.249%		
2.490% VRN 1/06/28	365,000	313,596
Santander UK Group Holdings PLC		

1.125% 9/08/23 EUR (c) (d)	111,000	117,432
1 year CMT + 1.250% 1.532% VRN 8/21/26	1,465,000	1,291,604

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Shinhan Bank Co. Ltd.		
3.875% 3/24/26 (c)	\$ 200,000	\$ 186,803
4.000% 4/23/29 (c)	500,000	444,990
Standard Chartered PLC		
1 year CMT + 1.000% 1.456% VRN 1/14/27 (c)	295,000	255,622
5 year EUR Swap + 2.800% 2.500% VRN 9/09/30 EUR (c) (d)	300,000	296,628
3 mo. USD LIBOR + 1.209% 2.819% VRN 1/30/26 (c)	200,000	186,104
1 year CMT + 1.650% 3.971% VRN 3/30/26 (c)	285,000	272,412
1 year CMT + 3.850% 4.644% VRN 4/01/31 (c)	1,030,000	928,506
The Toronto-Dominion Bank		
0.625% 7/20/23 EUR (c) (d)	110,000	116,448
Truist Financial Corp. SOFR + 1.368%		
4.123% VRN 6/06/28	525,000	501,834
UBS Group AG		
1 year CMT + 1.080% 1.364% VRN 1/30/27 (c)	235,000	206,026
1 year CMT + 1.750% 4.751% VRN 5/12/28 (c)	200,000	191,671
UniCredit SpA		
2.000% 3/04/23 EUR (c) (d)	313,000	334,866
5 year EURIBOR ICE Swap + 4.739% 4.875% VRN 2/20/29 EUR (c) (d)	200,000	211,219
Wells Fargo & Co.		
2.250% 5/02/23 EUR (c) (d)	114,000	121,926
SOFR + 2.100% 2.393% VRN 6/02/28	1,105,000	976,747
SOFR + 1.262% 2.572% VRN 2/11/31	1,225,000	1,017,287
3 mo. TSFR + 1.432% 2.879% VRN 10/30/30	2,145,000	1,828,615
SOFR + 2.530% 3.068% VRN 4/30/41	335,000	239,233
4.300% 7/22/27	290,000	279,557
		<u>47,429,557</u>
Beverages — 0.1%		
Anheuser-Busch InBev Worldwide, Inc.		
4.500% 6/01/50	380,000	335,667
Biotechnology — 0.0%		
CSL Finance PLC		
4.050% 4/27/29 (c)	260,000	245,603
Building Materials — 0.1%		
Cie de Saint-Gobain		
1.750% 4/03/23 EUR (c) (d)	100,000	106,825
CRH Finance UK PLC		
4.125% 12/02/29 GBP (c) (d)	150,000	164,534
Holcim Finance Luxembourg SA		
1.375% 5/26/23 EUR (c) (d)	111,000	118,234
Johnson Controls International PLC		
1.000% 9/15/23 EUR (d)	111,000	117,094
		<u>506,687</u>
Chemicals — 0.3%		
Avient Corp.		
7.125% 8/01/30 (c) (e)	39,000	38,123
BASF SE		
0.101% 6/05/23 EUR (c) (d)	100,000	105,929
Braskem Netherlands Finance BV		
4.500% 1/31/30 (c)	300,000	255,400
Celanese US Holdings LLC		
6.050% 3/15/25	265,000	264,296
6.165% 7/15/27	285,000	281,511

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
Eastman Chemical Co. 1.500% 5/26/23 EUR (d)	\$ 111,000	\$ 118,121
Equate Petrochemical BV 2.625% 4/28/28 (c)	200,000	174,000
Methanex Corp. 5.125% 10/15/27	65,000	60,288
The Sherwin-Williams Co. 2.950% 8/15/29	145,000	127,277
Westlake Corp. 1.625% 7/17/29 EUR (d)	575,000	496,666
		<u>1,921,611</u>
Commercial Services — 0.3%		
Abertis Infraestructuras SA 3.000% 3/27/31 EUR (c) (d)	100,000	92,882
Equifax, Inc. 5.100% 12/15/27	305,000	301,552
Holding d'Infrastructures de Transport SASU 0.625% 3/27/23 EUR (c) (d)	100,000	106,282
Transurban Finance Co. 2.450% 3/16/31 (c) (e)	920,000	726,009
3.375% 3/22/27 (c)	560,000	513,346
Verisure Holding AB 3.875% 7/15/26 EUR (c) (d)	100,000	96,610
		<u>1,836,681</u>
Computers — 0.0%		
Capgemini SE 2.500% 7/01/23 EUR (c) (d)	100,000	106,752
International Business Machines Corp. 0.375% 1/31/23 EUR (d)	109,000	116,492
		<u>223,244</u>
Diversified Financial Services — 1.4%		
AerCap Ireland Capital DAC / AerCap Global Aviation Trust 2.450% 10/29/26	525,000	459,622
3.500% 1/15/25	150,000	142,902
4.450% 4/03/26	270,000	258,181
4.875% 1/16/24	540,000	534,852
6.500% 7/15/25	150,000	152,115
Ally Financial, Inc. 4.750% 6/09/27	1,065,000	999,663
Capital One Financial Corp. 1.650% 6/12/29 EUR (d)	300,000	255,745
SOFR + 1.790% 3.273% VRN 3/01/30	265,000	227,049
3.650% 5/11/27	510,000	480,484
3.750% 3/09/27	115,000	108,908
SOFR + 2.160% 4.985% VRN 7/24/26	525,000	514,606
SOFR + 2.600% 5.247% VRN 7/26/30	140,000	133,614
Discover Financial Services 4.100% 2/09/27	510,000	479,968
Encore Capital Group, Inc. 5.375% 2/15/26 GBP (c) (d)	140,000	151,312
FCA Bank SpA 0.500% 9/18/23 EUR (c) (d)	109,000	114,215
0.500% 9/13/24 EUR (c) (d)	160,000	161,248

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Intercontinental Exchange, Inc.		
2.650% 9/15/40	\$ 130,000	\$ 90,693
4.350% 6/15/29	465,000	450,615
Iqera Group SAS		
4.250% 9/30/24 EUR (c) (d)	100,000	96,811
LeasePlan Corp. NV		
0.125% 9/13/23 EUR (d)	108,000	112,727
5 year EURIBOR ICE Swap + 7.556% 7.375% VRN EUR (c) (d) (f)	200,000	211,949
LSEGA Financing PLC		
2.000% 4/06/28 (c)	1,520,000	1,297,630
2.500% 4/06/31 (c) (e)	435,000	361,265
3.200% 4/06/41 (c) (e)	200,000	147,680
OneMain Finance Corp.		
7.125% 3/15/26	55,000	52,298
		<u>7,996,152</u>
Electric — 1.4%		
Ausgrid Finance Pty Ltd.		
4.350% 8/01/28 (c)	260,000	241,431
Duke Energy Corp.		
5.000% 8/15/52	430,000	384,055
E.ON SE		
0.375% 4/20/23 EUR (c) (d)	104,000	110,549
Edison International		
4.950% 4/15/25	30,000	29,524
EDP - Energias de Portugal SA		
2.875% 6/01/26 EUR (c) (d)	200,000	207,558
EDP Finance BV		
6.300% 10/11/27 (c)	200,000	205,411
Enel Finance America LLC		
7.100% 10/14/27 (c)	200,000	207,117
Enel Finance International NV		
4.875% 4/17/23 EUR (c) (d)	120,000	129,171
5.250% 9/29/23 EUR (d)	26,000	28,246
5.625% 8/14/24 GBP (c) (d)	150,000	182,781
6.800% 10/14/25 (c)	200,000	205,565
Engie SA		
0.375% 2/28/23 EUR (c) (d)	100,000	106,619
3.000% 2/01/23 EUR (c) (d)	84,000	89,894
Interchile SA		
4.500% 6/30/56 (c)	280,000	231,530
Minejesa Capital BV		
5.625% 8/10/37 (c)	300,000	233,552
NextEra Energy Capital Holdings, Inc.		
2.440% 1/15/32	595,000	482,285
3.000% 1/15/52	425,000	279,806
5.000% 7/15/32	125,000	123,108
NRG Energy, Inc.		
4.450% 6/15/29 (c)	205,000	181,485
Pacific Gas and Electric Co.		
2.100% 8/01/27	540,000	461,457
2.500% 2/01/31	465,000	363,345
4.550% 7/01/30	510,000	463,791
Sempra Energy		
3.700% 4/01/29	145,000	132,777
Southern California Edison Co.		
4.700% 6/01/27	340,000	333,451

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
State Grid Overseas Investment BVI Ltd. 1.375% 5/02/25 EUR (c) (d)	\$ 100,000	\$ 99,791
Vistra Corp. 5 year CMT + 6.930% 8.000% VRN (c) (f)	310,000	296,071
Vistra Operations Co. LLC 3.550% 7/15/24 (c)	1,285,000	1,232,897
4.375% 5/01/29 (c)	100,000	86,278
5.125% 5/13/25 (c)	485,000	474,194
		<u>7,603,739</u>
Electrical Components & Equipment — 0.0%		
Schneider Electric SE 1.500% 9/08/23 EUR (c) (d)	100,000	<u>106,136</u>
Electronics — 0.1%		
Arrow Electronics, Inc. 4.000% 4/01/25	375,000	362,484
Sensata Technologies BV 5.875% 9/01/30 (c)	345,000	<u>326,965</u>
		<u>689,449</u>
Engineering & Construction — 0.1%		
Cellnex Telecom SA 1.750% 10/23/30 EUR (c) (d)	200,000	165,770
Infrastrutture Wireless Italiane SpA 1.625% 10/21/28 EUR (c) (d)	155,000	<u>141,032</u>
		<u>306,802</u>
Entertainment — 0.2%		
Cedar Fair LP/Canada's Wonderland Co./Magnum Management Corp./Millennium Op 5.375% 4/15/27	75,000	71,507
Cirsa Finance International Sarl 6.250% 12/20/23 EUR (c) (d)	22,666	24,029
International Game Technology PLC 3.500% 6/15/26 EUR (c) (d)	100,000	101,633
3.500% 6/15/26 EUR (c) (d)	100,000	101,633
Warnermedia Holdings, Inc. 3.755% 3/15/27 (c)	705,000	<u>636,483</u>
		<u>935,285</u>
Environmental Controls — 0.0%		
Madison IAQ LLC 4.125% 6/30/28 (c)	95,000	<u>77,900</u>
Food — 0.1%		
Bellis Acquisition Co. PLC 3.250% 2/16/26 GBP (c) (d)	100,000	98,167
Chobani LLC / Chobani Finance Corp., Inc. 4.625% 11/15/28 (c)	105,000	91,414
Mondelez International Holdings Netherlands BV 0.250% 9/09/29 EUR (c) (d)	198,000	169,213
Nestle Finance International Ltd. 0.750% 5/16/23 EUR (c) (d)	39,000	41,528
Tesco Corporate Treasury Services PLC 0.875% 5/29/26 EUR (c) (d)	150,000	145,273

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
1.875% 11/02/28 GBP (c) (d)	\$ 150,000	\$ 147,756
		693,351
Forest Products & Paper — 0.1%		
Celulosa Arauco y Constitucion SA		
4.200% 1/29/30 (c)	200,000	185,977
Suzano Austria GmbH		
5.000% 1/15/30	200,000	187,250
		373,227
Gas — 0.2%		
APA Infrastructure Ltd.		
4.250% 7/15/27 (c)	885,000	827,862
Health Care – Products — 0.3%		
Abbott Ireland Financing DAC		
0.875% 9/27/23 EUR (c) (d)	111,000	117,286
Avantor Funding, Inc.		
4.625% 7/15/28 (c)	105,000	95,407
Becton Dickinson Euro Finance SARL		
0.632% 6/04/23 EUR (d)	109,000	115,730
1.213% 2/12/36 EUR (d)	100,000	75,131
Medline Borrower LP		
3.875% 4/01/29 (c)	68,000	54,732
Medtronic Global Holdings SCA		
0.375% 3/07/23 EUR (d)	160,000	170,624
0.375% 10/15/28 EUR (d)	100,000	89,313
PerkinElmer, Inc.		
1.900% 9/15/28	410,000	340,308
2.250% 9/15/31	220,000	172,998
3.300% 9/15/29	195,000	170,142
Thermo Fisher Scientific, Inc.		
0.875% 10/01/31 EUR (d)	140,000	118,236
2.375% 4/15/32 EUR (d)	100,000	95,234
		1,615,141
Health Care – Services — 0.9%		
Catalent Pharma Solutions, Inc.		
5.000% 7/15/27 (c) (e)	70,000	65,126
Centene Corp.		
2.450% 7/15/28	230,000	193,941
2.625% 8/01/31	315,000	246,999
3.375% 2/15/30	515,000	435,366
4.625% 12/15/29	875,000	799,915
Charles River Laboratories International, Inc.		
4.000% 3/15/31 (c) (e)	110,000	95,150
Fresenius Medical Care AG & Co. KGaA		
0.250% 11/29/23 EUR (c) (d)	72,000	75,086
HCA, Inc.		
3.125% 3/15/27 (c)	235,000	214,298
3.375% 3/15/29 (c)	90,000	79,209
3.500% 9/01/30	499,000	431,681
5.375% 9/01/26	170,000	168,261
5.875% 2/15/26	625,000	629,636
Humana, Inc.		
3.700% 3/23/29	170,000	155,941

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.875% 4/01/30	\$ 645,000	\$ 633,880
Molina Healthcare, Inc.		
4.375% 6/15/28 (c)	75,000	68,444
Tenet Healthcare Corp.		
6.125% 6/15/30 (c)	90,000	85,752
UnitedHealth Group, Inc.		
2.000% 5/15/30	190,000	157,070
5.875% 2/15/53	360,000	389,517
		<u>4,925,272</u>
Holding Company – Diversified — 0.0%		
CK Hutchison Finance 16 Ltd.		
1.250% 4/06/23 EUR (c) (d)	111,000	118,267
Insurance — 0.9%		
AIA Group Ltd.		
3.900% 4/06/28 (c)	640,000	601,958
Allianz SE 10 mo. EURIBOR ICE Swap + 3.200%		
3.375% VRN EUR (c) (d) (f)	400,000	412,979
Aon Corp.		
2.800% 5/15/30	145,000	124,121
Berkshire Hathaway Finance Corp.		
1.500% 3/18/30 EUR (d)	167,000	151,318
2.500% 1/15/51	505,000	318,028
2.850% 10/15/50	185,000	124,514
3.850% 3/15/52	195,000	157,672
Berkshire Hathaway, Inc.		
0.750% 3/16/23 EUR (d)	160,000	170,583
CNO Financial Group, Inc.		
5.250% 5/30/25	217,000	215,543
Corebridge Financial, Inc.		
3.900% 4/05/32 (c)	145,000	127,624
Equitable Holdings, Inc.		
4.350% 4/20/28	1,150,000	1,097,578
Hannover Rueck SE 3 mo. EURIBOR + 3.000%		
1.750% VRN 10/08/40 EUR (c) (d)	300,000	249,297
Jackson Financial, Inc.		
5.170% 6/08/27 (e)	430,000	424,591
Legal & General Group PLC 5 Year UK Gilt + 4.580%		
5.375% VRN 10/27/45 GBP (c) (d)	185,000	217,616
Marsh & McLennan Cos., Inc.		
2.250% 11/15/30	185,000	151,632
Trinity Acquisition PLC		
4.400% 3/15/26	545,000	529,233
		<u>5,074,287</u>
Internet — 0.1%		
Gen Digital, Inc.		
6.750% 9/30/27 (c)	15,000	14,700
7.125% 9/30/30 (c) (e)	32,000	31,440
Match Group Holdings II LLC		
5.000% 12/15/27 (c) (e)	128,000	117,760
MercadoLibre, Inc.		
3.125% 1/14/31	200,000	154,620
Netflix, Inc.		
4.625% 5/15/29 EUR (d)	100,000	104,752

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
Tencent Holdings Ltd. 3.240% 6/03/50 (c)	\$ 350,000	\$ 222,955
United Group BV 4.625% 8/15/28 EUR (c) (d)	100,000	78,448
		<u>724,675</u>
Investment Companies — 0.1%		
Criteria Caixa SA 1.500% 5/10/23 EUR (c) (d)	100,000	106,537
JAB Holdings BV 2.000% 5/18/28 EUR (c) (d)	300,000	286,741
		<u>393,278</u>
Iron & Steel — 0.1%		
ABJA Investment Co. Pte Ltd. 5.450% 1/24/28 (c)	200,000	194,219
Nucor Corp. 3.125% 4/01/32	150,000	127,606
		<u>321,825</u>
Leisure Time — 0.0%		
Deuce Finco Plc 5.500% 6/15/27 GBP (c) (d)	100,000	96,172
Royal Caribbean Cruises Ltd. 8.250% 1/15/29 (c)	120,000	120,585
		<u>216,757</u>
Lodging — 0.1%		
Las Vegas Sands Corp. 3.500% 8/18/26	210,000	188,624
Marriott International, Inc. 5.000% 10/15/27	335,000	331,072
		<u>519,696</u>
Machinery – Diversified — 0.0%		
Highland Holdings Sarl 0.318% 12/15/26 EUR (d)	122,000	114,262
TK Elevator Midco GmbH 4.375% 7/15/27 EUR (c) (d)	100,000	94,703
		<u>208,965</u>
Media — 0.3%		
Altice Financing SA 4.250% 8/15/29 EUR (c) (d)	100,000	86,225
CCO Holdings LLC/CCO Holdings Capital Corp. 4.250% 2/01/31 (c)	130,000	104,275
5.375% 6/01/29 (c)	33,000	29,718
6.375% 9/01/29 (c)	75,000	70,481
Charter Communications Operating LLC/Charter Communications Operating Capital 2.250% 1/15/29	355,000	286,336
4.200% 3/15/28	485,000	446,488
6.484% 10/23/45	105,000	95,091
Comcast Corp. 3.250% 11/01/39	295,000	231,025

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
DISH DBS Corp. 5.750% 12/01/28 (c)	\$ 65,000	\$ 51,878
Sirius XM Radio, Inc. 4.000% 7/15/28 (c)	125,000	108,787
Univision Communications, Inc. 7.375% 6/30/30 (c)	65,000	62,121
Ziggo BV 2.875% 1/15/30 EUR (c) (d)	100,000	85,502
		<u>1,657,927</u>
Mining — 0.0%		
Arconic Corp. 6.125% 2/15/28 (c) (e)	90,000	84,444
Hudbay Minerals, Inc. 6.125% 4/01/29 (c)	60,000	54,297
		<u>138,741</u>
Miscellaneous - Manufacturing — 0.1%		
Parker-Hannifin Corp. 4.250% 9/15/27	165,000	160,270
4.500% 9/15/29	175,000	168,045
Siemens Financieringsmaatschappij NV 0.000% 2/20/23 EUR (c) (d)	100,000	106,712
0.375% 9/06/23 EUR (c) (d)	107,000	113,048
		<u>548,075</u>
Oil & Gas — 1.0%		
Aker BP ASA 2.875% 1/15/26 (c)	180,000	166,497
BP Capital Markets PLC 1.109% 2/16/23 EUR (c) (d)	150,000	160,311
2.213% 9/25/26 EUR (c) (d)	160,000	162,670
Chesapeake Energy Corp. 6.750% 4/15/29 (c)	75,000	73,020
Ecopetrol SA 4.625% 11/02/31	225,000	171,930
Eni SpA 3.250% 7/10/23 EUR (c) (d)	117,000	125,433
4.750% 9/12/28 (c)	875,000	848,347
Leviathan Bond Ltd. 6.500% 6/30/27 (c)	300,000	290,280
Occidental Petroleum Corp. 6.200% 3/15/40	95,000	92,286
8.500% 7/15/27	115,000	123,848
8.875% 7/15/30	85,000	95,965
OMV AG 0.000% 6/16/23 EUR (c) (d)	71,000	75,151
Petroleos Mexicanos 5.125% 3/15/23 EUR (c) (d)	850,000	909,427
Saudi Arabian Oil Co. 4.250% 4/16/39 (c)	200,000	178,541
TotalEnergies Capital International SA 2.125% 3/15/23 EUR (c) (d)	100,000	106,973
Wintershall Dea Finance BV 0.452% 9/25/23 EUR (c) (d)	100,000	104,293

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Woodside Finance Ltd. 3.700% 9/15/26 (c)	\$ 2,000,000	\$ 1,872,239
		<u>5,557,211</u>
Packaging & Containers — 0.1%		
Ardagh Metal Packaging Finance USA LLC / Ardagh Metal Packaging Finance PLC 3.000% 9/01/29 EUR (c) (d)	180,000	140,657
Ball Corp. 6.875% 3/15/28 (e)	140,000	143,804
Graphic Packaging International LLC 2.625% 2/01/29 EUR (c) (d)	100,000	93,674
Sealed Air Corp. 5.000% 4/15/29 (c)	75,000	70,500
Trivium Packaging Finance BV 3.750% 8/15/26 EUR (c) (d)	100,000	97,411
		<u>546,046</u>
Pharmaceuticals — 1.1%		
AbbVie, Inc. 3.200% 11/21/29	475,000	429,986
4.050% 11/21/39	270,000	232,443
4.250% 11/21/49	325,000	273,906
4.700% 5/14/45	530,000	474,861
4.875% 11/14/48	980,000	899,249
Astrazeneca Finance LLC 1.750% 5/28/28	445,000	382,717
Bayer Capital Corp. BV 1.250% 11/13/23 EUR (c) (d)	56,000	59,150
Becton Dickinson and Co. 1.957% 2/11/31	645,000	511,615
2.823% 5/20/30	510,000	438,936
3.020% 5/24/25 GBP (d)	150,000	171,564
Cardinal Health, Inc. 4.500% 11/15/44	95,000	76,161
CVS Health Corp. 3.250% 8/15/29	135,000	121,087
5.050% 3/25/48	823,000	742,421
GlaxoSmithKline Capital PLC 0.125% 5/12/23 EUR (c) (d)	100,000	106,204
Roche Finance Europe BV 0.500% 2/27/23 EUR (c) (d)	92,000	98,261
Sanofi 0.500% 3/21/23 EUR (c) (d)	100,000	106,594
2.500% 11/14/23 EUR (c) (d)	100,000	107,058
Teva Pharmaceutical Finance Netherlands BV 6.000% 1/31/25 EUR (d)	100,000	105,211
7.125% 1/31/25	200,000	198,878
Utah Acquisition Sub, Inc. 3.950% 6/15/26	685,000	641,140
		<u>6,177,442</u>
Pipelines — 1.5%		
Boardwalk Pipelines LP 3.400% 2/15/31	990,000	830,606
Cheniere Corpus Christi Holdings LLC		

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
3.700% 11/15/29	\$ 465,000	\$ 421,152
5.125% 6/30/27	140,000	138,498
Cheniere Energy Partners LP		
3.250% 1/31/32 (c)	95,000	75,532
Cheniere Energy, Inc.		
4.625% 10/15/28	145,000	131,069
Energy Transfer LP		
2.900% 5/15/25	185,000	174,465
4.500% 4/15/24	65,000	64,095
5.875% 1/15/24	390,000	391,062
6.000% 6/15/48	568,000	513,181
6.250% 4/15/49	105,000	98,250
Enterprise Products Operating LLC		
2.800% 1/31/30	145,000	123,683
Gray Oak Pipeline LLC		
2.000% 9/15/23 (c)	55,000	53,500
2.600% 10/15/25 (c)	170,000	154,297
3.450% 10/15/27 (c)	70,000	62,005
Kinetik Holdings LP		
5.875% 6/15/30 (c)	90,000	84,401
NuStar Logistics LP		
5.750% 10/01/25 (e)	80,000	77,012
Sabine Pass Liquefaction LLC		
4.500% 5/15/30	95,000	88,290
5.000% 3/15/27	290,000	284,700
5.875% 6/30/26	1,715,000	1,735,266
Tallgrass Energy Partners LP / Tallgrass Energy Finance Corp		
7.500% 10/01/25 (c)	110,000	110,990
Targa Resources Partners LP/Targa Resources Partners Finance Corp.		
4.000% 1/15/32	125,000	104,981
4.875% 2/01/31	25,000	22,439
5.500% 3/01/30	150,000	141,138
6.875% 1/15/29	345,000	348,103
Transcanada Trust 3 mo. CDOR + 3.080%		
4.650% VRN 5/18/77 CAD (d)	650,000	429,076
Transcontinental Gas Pipe Line Co. LLC		
4.000% 3/15/28	125,000	117,453
4.600% 3/15/48	110,000	92,000
Venture Global Calcasieu Pass LLC		
3.875% 8/15/29 (c)	55,000	48,125
3.875% 11/01/33 (c)	180,000	147,042
4.125% 8/15/31 (c)	65,000	55,380
The Williams Cos., Inc.		
3.750% 6/15/27	1,170,000	1,103,110
		<u>8,220,901</u>
Real Estate — 0.2%		
Akelius Residential Property AB		
1.750% 2/07/25 EUR (c) (d)	170,000	168,272
Blackstone Property Partners Europe Holdings SARL		
0.500% 9/12/23 EUR (c) (d)	100,000	103,112
1.750% 3/12/29 EUR (c) (d)	280,000	218,521
Cushman & Wakefield US Borrower LLC		
6.750% 5/15/28 (c)	65,000	62,034
EMG SUKUK Ltd.		
4.564% 6/18/24 (c)	200,000	196,850
Howard Hughes Corp.		

4.125% 2/01/29 (c)

110,000

92,125

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
5.375% 8/01/28 (c) Vonovia Finance BV	\$ 40,000	\$ 36,029
2.250% 12/15/23 EUR (c) (d)	100,000	105,737
		<u>982,680</u>
Real Estate Investment Trusts (REITS) — 1.8%		
Brixmor Operating Partnership LP		
4.050% 7/01/30	585,000	513,220
4.125% 6/15/26	2,000,000	1,897,642
4.125% 5/15/29	160,000	143,416
Crown Castle, Inc.		
2.250% 1/15/31 (e)	715,000	575,114
2.900% 3/15/27	135,000	123,039
3.800% 2/15/28	665,000	618,483
Essex Portfolio LP		
4.000% 3/01/29	760,000	694,253
GLP Capital LP/GLP Financing II, Inc.		
3.350% 9/01/24	125,000	119,534
Healthcare Realty Holdings LP		
2.050% 3/15/31	230,000	168,683
3.625% 1/15/28	850,000	754,901
Highwoods Realty LP		
3.050% 2/15/30	675,000	538,810
4.125% 3/15/28	405,000	366,401
Inmobiliaria Colonial Socimi SA		
1.625% 11/28/25 EUR (c) (d)	200,000	197,030
Klepierre SA		
1.000% 4/17/23 EUR (c) (d)	100,000	106,586
MGM Growth Properties Operating Partnership LP / MGP Finance Co-Issuer, Inc.		
5.750% 2/01/27	55,000	52,319
Prologis LP		
2.250% 6/30/29 GBP (d)	150,000	151,641
Realty Income Corp.		
3.950% 8/15/27	650,000	620,636
Regency Centers LP		
3.600% 2/01/27	305,000	285,988
4.125% 3/15/28	815,000	758,025
SBA Tower Trust		
1.840% 4/15/27 (c)	635,000	538,679
2.593% 10/15/56 (c)	515,000	396,571
Scentre Group Trust 1 / Scentre Group Trust 2		
1.375% 3/22/23 EUR (c) (d)	111,000	118,276
		<u>9,739,247</u>
Retail — 0.2%		
Bath & Body Works, Inc.		
6.625% 10/01/30 (c)	90,000	84,456
Lowe's Cos., Inc.		
4.250% 4/01/52	265,000	211,802
5.625% 4/15/53	195,000	185,409
Next Group PLC		
3.625% 5/18/28 GBP (c) (d) (e)	250,000	265,363
Ross Stores, Inc.		
1.875% 4/15/31	535,000	421,463

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Yum! Brands, Inc. 5.375% 4/01/32	\$ 140,000	\$ 129,675
		<u>1,298,168</u>
Savings & Loans — 0.1%		
Nationwide Building Society 3 mo. EURIBOR + .930% 1.500% VRN 3/08/26 EUR (c) (d)	140,000	140,026
5 year EUR Swap + 1.500% 2.000% VRN 7/25/29 EUR (c) (d)	150,000	151,274
		<u>291,300</u>
Semiconductors — 0.4%		
Broadcom, Inc. 4.110% 9/15/28	135,000	125,763
Entegris Escrow Corp. 5.950% 6/15/30 (c)	110,000	101,442
Micron Technology, Inc. 4.185% 2/15/27	262,000	248,454
4.975% 2/06/26	435,000	429,232
NXP BV / NXP Funding LLC 5.350% 3/01/26	1,115,000	1,109,769
NXP BV / NXP Funding LLC / NXP USA, Inc. 2.700% 5/01/25	45,000	42,388
3.150% 5/01/27	95,000	86,189
		<u>2,143,237</u>
Software — 0.2%		
Central Parent, Inc. / CDK Global, Inc. 7.250% 6/15/29 (c) (e)	74,000	72,430
Fidelity National Information Services, Inc. 0.750% 5/21/23 EUR (d)	110,000	116,837
Fiserv, Inc. 3.000% 7/01/31 GBP (d)	250,000	251,344
3.500% 7/01/29	150,000	135,337
Oracle Corp. 2.300% 3/25/28	355,000	308,031
SAP SE 1.125% 2/20/23 EUR (c) (d)	106,000	113,263
Workday, Inc. 3.700% 4/01/29	110,000	100,880
		<u>1,098,122</u>
Telecommunications — 1.6%		
Altice France SA 3.375% 1/15/28 EUR (c) (d)	135,000	108,405
5.500% 1/15/28 (c)	290,000	227,105
America Movil SAB de CV 5.750% 6/28/30 GBP (d)	140,000	171,106
AT&T, Inc. 1.650% 2/01/28	415,000	351,106
2.500% 3/15/23 EUR (d)	113,000	120,913
3.500% 9/15/53	555,000	374,277
Axiata SPV2 Bhd 2.163% 8/19/30 (c)	250,000	200,382
CK Hutchison Group Telecom Finance SA 0.375% 10/17/23 EUR (c) (d)	109,000	113,905

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Deutsche Telekom International Finance BV 0.625% 4/03/23 EUR (c) (d)	\$ 112,000	\$ 119,292
NBN Co., Ltd. 2.625% 5/05/31 (c)	480,000	382,516
NTT Finance Corp. 1.591% 4/03/28 (c)	765,000	642,398
Orange SA 0.750% 9/11/23 EUR (c) (d)	100,000	105,664
PLT VII Finance Sarl 4.625% 1/05/26 EUR (c) (d)	100,000	100,524
Rogers Communications, Inc. 3.200% 3/15/27 (c)	185,000	171,452
3.800% 3/15/32 (c)	295,000	255,632
4.550% 3/15/52 (c)	145,000	112,488
Sprint Capital Corp. 6.875% 11/15/28	60,000	62,399
T-Mobile USA, Inc. 2.050% 2/15/28	270,000	232,338
3.750% 4/15/27	2,765,000	2,607,874
Tele2 AB 0.750% 3/23/31 EUR (c) (d)	130,000	105,908
Telefonica Emisiones SA 3.987% 1/23/23 EUR (c) (d)	100,000	107,119
Verizon Communications, Inc. 2.100% 3/22/28	365,000	317,355
2.550% 3/21/31	370,000	304,793
2.650% 11/20/40	530,000	360,162
3.550% 3/22/51	535,000	382,389
Vmed O2 UK Financing I PLC 4.500% 7/15/31 GBP (c) (d)	155,000	142,433
4.500% 7/15/31 GBP (c) (d)	150,000	137,838
Vodafone Group PLC 1.750% 8/25/23 EUR (c) (d)	113,000	120,220
4.875% 6/19/49	38,000	32,033
5.250% 5/30/48	408,000	361,521
		<u>8,831,547</u>
Toys, Games & Hobbies — 0.0%		
Hasbro, Inc. 3.550% 11/19/26	245,000	<u>230,048</u>
Transportation — 0.0%		
Deutsche Post AG 2.750% 10/09/23 EUR (c) (d)	62,000	66,560
InPost SA 2.250% 7/15/27 EUR (c) (d)	100,000	<u>87,777</u>
		<u>154,337</u>
Water — 0.0%		
Veolia Environnement SA 0.314% 10/04/23 EUR (c) (d)	100,000	<u>105,111</u>
TOTAL CORPORATE DEBT (Cost \$163,969,850)		<u>144,870,107</u>
MUNICIPAL OBLIGATIONS — 0.1%		
Commonwealth of Puerto Rico, General Obligation 0.000% 11/01/43	698,226	<u>305,474</u>

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
TOTAL MUNICIPAL OBLIGATIONS (Cost \$370,482)		\$ 305,474
NON-U.S. GOVERNMENT AGENCY OBLIGATIONS — 8.5%		
Automobile Asset-Backed Securities — 0.9%		
AmeriCredit Automobile Receivables Trust, Series 2020-3, Class D 1.490% 9/18/26	275,000	254,619
CarMax Auto Owner Trust, Series 2022-1, Class D 2.470% 7/17/28	280,000	253,086
Exeter Automobile Receivables Trust Series 2021-2A, Class D, 1.400% 4/15/27	235,000	214,990
Series 2021-3A, Class D, 1.550% 6/15/27	195,000	177,035
Series 2022-1A, Class D, 3.020% 6/15/28	995,000	901,279
Series 2022-2A, Class C, 3.850% 7/17/28	820,000	791,226
Series 2022-3A, Class C, 5.300% 9/15/27	520,000	510,751
GMF Floorplan Owner Revolving Trust, Series 2020-2, Class C 1.310% 10/15/25 (c)	290,000	278,980
Santander Bank NA - SBCLN, Series 2021-1A, Class B 1.833% 12/15/31 (c)	131,449	126,942
Santander Consumer Auto Receivables Trust, Series 2021-AA, Class D 1.570% 1/15/27 (c)	735,000	665,947
Santander Drive Auto Receivables Trust, Series 2021-4, Class D 1.670% 10/15/27	310,000	286,996
Santander Retail Auto Lease Trust, Series 2021-A, Class D 1.380% 3/22/27 (c)	715,000	673,423
		<u>5,135,274</u>
Commercial Mortgage-Backed Securities — 2.3%		
Austin Fairmont Hotel Trust, Series 2019-FAIR, Class B, 1 mo. USD LIBOR + 1.250% 5.568% FRN 9/15/32 (c)	235,000	228,257
Aventura Mall Trust, Series 2018-AVM, Class A, 4.112% VRN 7/05/40 (c) (g)	380,000	340,617
Barclays Commercial Mortgage Trust, Series 2019-BWAY, Class D, 1 mo. USD LIBOR + 2.160% 6.478% FRN 11/15/34 (c)	245,000	196,385
BX Commercial Mortgage Trust Series 2021-ARIA, Class B, 1 mo. USD LIBOR + 1.297% 5.615% FRN 10/15/36 (c)	475,000	444,747
Series 2022-CSMO, Class B, 1 mo. TSFR + 3.141% 7.476% FRN 6/15/27 (c)	465,000	460,934
BXSC Commercial Mortgage Trust, Series 2018, Class B, 1 mo. TSFR + 2.092% 6.428% FRN 3/15/35 (c)	920,000	886,679
Cantor Commercial Real Estate Lending, Series 2019-CF2, Class B 3.267% 11/15/52	295,000	233,157
Citigroup Commercial Mortgage Trust Series 2013-375P, Class C, 3.518% VRN 5/10/35 (c) (g)	390,000	359,451
Series 2013-375P, Class D, 3.518% VRN 5/10/35 (c) (g)	315,000	286,385
Cold Storage Trust, Series 2020-ICE5, Class C, 1 mo. USD LIBOR + 1.650% 5.968% FRN 11/15/37 (c)	285,067	275,814
Commercial Mortgage Trust, Series 2015-LC23, Class AM, 4.158% VRN 10/10/48 (g)	1,650,000	1,547,691
Credit Suisse Mortgage Trust Series 2020-NET, Class A, 2.257% 8/15/37 (c)	298,082	267,680
Series 2020-NET, Class C, 3.526% 8/15/37 (c)	480,000	430,998

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
DC Office Trust, Series 2019-MTC, Class D, 3.072% VRN 9/15/45 (c) (g)	\$ 520,000	\$ 367,305
Great Wolf Trust		
Series 2019-WOLF, Class A, 1 mo. USD LIBOR + 1.034% 5.352% FRN 12/15/36 (c)	710,000	689,626
Series 2019-WOLF, Class C, 1 mo. USD LIBOR + 1.633% 5.951% FRN 12/15/36 (c)	435,000	416,033
Series 2019-WOLF, Class D, 1 mo. USD LIBOR + 1.933% 6.251% FRN 12/15/36 (c)	820,000	781,124
JP Morgan Chase Commercial Mortgage Securities Trust, Series 2018-WPT, Class AFX 4.248% 7/05/33 (c)	115,000	108,334
Manhattan West Mortgage Trust, Series 2020-1MW, Class D, 2.335% VRN 9/10/39 (c) (g)	290,000	230,775
SMRT, Series 2022-MINI, Class C, 1 mo. TSFR + 1.550% 5.886% FRN 1/15/39 (c)	580,000	548,129
VNDO Trust, Series 2016, Class D, 3.903% VRN 1/10/35 (c) (g)	750,000	623,131
Wells Fargo Commercial Mortgage Trust		
Series 2014-LC18, Class AS, 3.808% 12/15/47	1,695,000	1,601,577
Series 2017-C39, Class B, 4.025% 9/15/50	1,010,000	884,865
Series 2021-SAVE, Class C, 1 mo. USD LIBOR + 1.800% 6.118% FRN 2/15/40 (c)	368,154	331,916
		12,541,610
Other Asset-Backed Securities — 3.1%		
522 Funding CLO Ltd.		
Series 2019-5A, Class AR, 3 mo. TSFR + 1.330% 5.194% FRN 4/15/35 (c)	825,000	793,114
Series 2019-5A, Class BR, 3 mo. TSFR + 1.850% 5.714% FRN 4/15/35 (c)	465,000	423,684
AGL CLO 17 Ltd., Series 2022-17A, Class A, 3 mo. TSFR + 1.330% 5.318% FRN 1/21/35 (c)	630,000	610,053
Amur Equipment Finance Receivables X LLC, Series 2022-1A, Class C 2.370% 4/20/28 (c)	175,000	157,258
Applebee's Funding LLC/IHOP Funding LLC, Series 2019-1A, Class A2I 4.194% 6/05/49 (c)	1,267,200	1,249,464
Benefit Street Partners CLO Ltd., Series 2020-20A, Class AR, 3 mo. USD LIBOR + 1.170% 5.249% FRN 7/15/34 (c)	470,000	458,485
Carlyle U.S. CLO Ltd., Series 2019-4A, Class A11R, 3 mo. TSFR + 1.320% 5.184% FRN 4/15/35 (c)	865,000	838,830
CBAM Ltd., Series 2019-9A, Class A, 3 mo. USD LIBOR + 1.280% 5.359% FRN 2/12/30 (c)	1,138,207	1,124,986
Cedar Funding VIII Clo Ltd., Series 2017-8A, Class A1R, 3 mo. USD LIBOR + 1.150% 5.229% FRN 10/17/34 (c)	490,000	477,930
CIFC Funding Ltd.		
Series 2021-3A, Class A, 3 mo. USD LIBOR + 1.140% 5.219% FRN 7/15/36 (c)	585,000	571,123
Series 2020-1A, Class A1R, 3 mo. USD LIBOR + 1.150% 5.229% FRN 7/15/36 (c)	925,000	903,899
Series 2020-3A, Class A1R, 3 mo. USD LIBOR + 1.130% 5.373% FRN 10/20/34 (c)	610,000	595,177
Cologix Canadian Issuer LP, Series 2022-1CAN, Class A2 4.940% 1/25/52 CAD (c) (d)	275,000	185,283
Driven Brands Funding LLC		
Series 2020-2A, Class A2, 3.237% 1/20/51 (c)	555,113	460,414
Series 2020-1A, Class A2, 3.786% 7/20/50 (c)	268,813	231,661

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Dryden 86 CLO Ltd., Series 2020-86A, Class A1R, 3 mo. USD LIBOR + 1.100% 5.179% FRN 7/17/34 (c)	\$ 600,000	\$ 584,715
Hardee's Funding LLC		
Series 2021-1A, Class A2, 2.865% 6/20/51 (c)	295,500	236,182
Series 2018-1A, Class AII, 4.959% 6/20/48 (c)	311,188	294,026
HPEFS Equipment Trust		
Series 2022-1A, Class C, 1.960% 5/21/29 (c)	129,000	118,846
Series 2022-1A, Class D, 2.400% 11/20/29 (c)	350,000	326,481
HPS Loan Management Ltd.		
Series 2021-16A, Class A1, 3 mo. USD LIBOR + 1.140% 5.465% FRN 1/23/35 (c)	290,000	281,829
Series 11A-17, Class BR, 3 mo. USD LIBOR + 1.550% 6.082% FRN 5/06/30 (c)	265,000	255,170
Jack in the Box Funding LLC, Series 2022-1A, Class A2I 3.445% 2/26/52 (c)	959,390	844,032
Madison Park Funding XXXIII Ltd., Series 2019-33A, Class AR, 3 mo. TSFR + 1.290% 5.154% FRN 10/15/32 (c)	465,000	454,000
Neuberger Berman Loan Advisers CLO Ltd.		
Series 2021-43A, Class A, 3 mo. USD LIBOR + 1.130% 5.209% FRN 7/17/35 (c)	685,000	669,525
Series 2019-32A, Class AR, 3 mo. USD LIBOR + .990% 5.217% FRN 1/20/32 (c)	1,445,000	1,421,043
OZLM Ltd., Series 2014-7RA, Class A1R, 3 mo. USD LIBOR + 1.010% 5.089% FRN 7/17/29 (c)	266,150	263,046
Palmer Square CLO Ltd., Series 2022-1A, Class A, 3 mo. TSFR + 1.320% 5.283% FRN 4/20/35 (c)	480,000	467,321
Planet Fitness Master Issuer LLC, Series 2022-1A, Class A2I 3.251% 12/05/51 (c)	630,238	546,444
Symphony CLO Ltd.		
Series 2021-26A, Class AR, 3 mo. USD LIBOR + 1.080% 5.323% FRN 4/20/33 (c)	425,000	412,802
Series 2022-31A, Class B, 3 mo. TSFR + 1.850% 5.888% FRN 4/22/35 (c)	410,000	392,315
Wellfleet CLO Ltd., Series 2017-2A, Class A1R, 3 mo. USD LIBOR + 1.060% 5.303% FRN 10/20/29 (c)	475,472	469,801
		17,118,939
Student Loans Asset-Backed Securities — 0.6%		
Navient Private Education Refi Loan Trust		
Series 2020-HA, Class A, 1.310% 1/15/69 (c)	162,402	144,174
Series 2020-DA, Class A, 1.690% 5/15/69 (c)	153,295	138,068
Series 2022-A, Class A, 2.230% 7/15/70 (c)	945,980	808,743
Series 2019-FA, Class A2, 2.600% 8/15/68 (c)	318,994	295,814
Series 2020-CA, Class B, 2.830% 11/15/68 (c)	470,000	380,171
SMB Private Education Loan Trust		
Series 2020-BA, Class A1A, 1.290% 7/15/53 (c)	191,262	172,734
Series 2021-A, Class B, 2.310% 1/15/53 (c)	570,000	478,979
Series 2018-A, Class A2A, 3.500% 2/15/36 (c)	666,902	646,076
		3,064,759
Whole Loan Collateral Collateralized Mortgage Obligations — 1.2%		
Angel Oak Mortgage Trust		
Series 2021-4, Class A3, 1.446% VRN 1/20/65 (c) (g)	289,462	226,841
Series 2020-5, Class A3, 2.041% VRN 5/25/65 (c) (g)	68,069	59,553
Series 2022-1, Class A1, 2.881% STEP 12/25/66 (c)	309,822	274,424

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2020-5, Class M1, 2.970% VRN 5/25/65 (c) (g)	\$ 275,000	\$ 207,730
Series 2019-1, Class A2, 4.022% VRN 11/25/48 (c) (g)	2,334	2,321
BINOM Securitization Trust, Series 2021-INV1, Class A1, 2.034% VRN 6/25/56 (c) (g)	294,040	250,845
CIM Trust, Series 2021-INV1, Class A29, 2.500% VRN 7/01/51 (c) (g)	603,574	466,780
Citigroup Mortgage Loan Trust, Series 2022-INV1, Class A4B, 3.000% VRN 11/27/51 (c) (g)	223,193	180,403
COLT Mortgage Loan Trust, Series 2020-3, Class A1, 1.506% VRN 4/27/65 (c) (g)	47,850	43,926
Ellington Financial Mortgage Trust		
Series 2021-3, Class A1, 1.241% VRN 9/25/66 (c) (g)	335,376	261,350
Series 2020-1, Class A3, 3.999% VRN 5/25/65 (c) (g)	430,000	379,533
Flagstar Mortgage Trust		
Series 2018-6RR, Class 2A4, 4.000% VRN 9/25/48 (c) (g)	15,976	15,252
Series 2020-1INV, Class A11, 1 mo. USD LIBOR + .850% 4.866% FRN 3/25/50 (c)	89,013	80,948
Galton Funding Mortgage Trust		
Series 2019-H1, Class A3, 2.964% VRN 10/25/59 (c) (g)	341,883	322,213
Series 2018-1, Class A23, 3.500% VRN 11/25/57 (c) (g)	23,437	20,932
Series 2019-1, Class A22, 4.000% VRN 2/25/59 (c) (g)	10,663	10,015
GCAT Trust, Series 2021-NQM4, Class A3, 1.556% VRN 8/25/66 (c) (g)	196,015	147,197
GS Mortgage-Backed Securities Trust		
Series 2021-GR2, Class A4, 2.500% VRN 2/25/52 (c) (g)	468,394	363,115
Series 2020-INV1, Class A14, 2.932% VRN 10/25/50 (c) (g)	249,154	208,112
Imperial Fund Mortgage Trust, Series 2021-NQM2, Class A1, 1.073% VRN 9/25/56 (c) (g)	214,878	169,047
JP Morgan Mortgage Trust		
Series 2020-LTV1, Class B1, 3.263% VRN 6/25/50 (c) (g)	356,651	273,139
Series 2019-INV3, Class A3, 3.500% VRN 5/25/50 (c) (g)	118,706	103,921
Series 2020-LTV1, Class A3, 3.500% VRN 6/25/50 (c) (g)	29,429	28,023
Series 2020-INV1, Class A3, 3.500% VRN 8/25/50 (c) (g)	100,168	86,751
Series 2020-5, Class B2, 3.584% VRN 12/25/50 (c) (g)	336,319	267,268
Series 2020-INV1, Class A11, 1 mo. USD LIBOR + .830% 4.874% FRN 8/25/50 (c)	63,440	58,012
Onslow Bay Financial LLC		
Series 2021-NQM3, Class A1, 1.054% VRN 7/25/61 (c) (g)	321,441	244,679
Series 2019-EXP3, Class 1A8, 3.500% VRN 10/25/59 (c) (g)	56,345	49,969
Series 2020-EXP1, Class 1A8, 3.500% VRN 2/25/60 (c) (g)	262,833	228,413
Series 2019-INV2, Class A25, 4.000% VRN 5/27/49 (c) (g)	111,976	102,744
Series 2019-EXP2, Class 1A3, 4.000% VRN 6/25/59 (c) (g)	84,580	76,428
Sequoia Mortgage Trust		
Series 2017-CH1, Class A2, 3.500% VRN 8/25/47 (c) (g)	53,822	49,125
Series 2017-CH1, Class A13, 4.000% VRN 8/25/47 (c) (g)	66,906	62,119
Series 2018-CH3, Class A2, 4.000% VRN 8/25/48 (c) (g)	8,692	8,445
Series 2018-CH4, Class A2, 4.000% VRN 10/25/48 (c) (g)	5,702	5,629
SG Residential Mortgage Trust, Series 2019-3, Class A1, 2.703% VRN 9/25/59 (c) (g)	15,898	15,303
TRK Trust, Series 2021-INV1, Class A1, 1.153% VRN 7/25/56 (c) (g)	298,292	248,407
Verus Securitization Trust		
Series 2021-5, Class A2, 1.218% VRN 9/25/66 (c) (g)	295,600	231,887
Series 2019-4, Class A1, 2.642% STEP 11/25/59 (c)	119,693	113,896
Series 2022-1, Class A1, 2.724% STEP 1/25/67 (c)	759,297	673,941
Series 2019-INV2, Class A2, 3.117% VRN 7/25/59 (c) (g)	191,940	184,183

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2020-INV1, Class A3, 3.889% VRN 3/25/60 (c) (g)	\$ 100,000	\$ 92,063
		6,894,882
Whole Loan Collateral Support Collateralized Mortgage Obligations — 0.4%		
Bayview MSR Opportunity Master Fund Trust		
Series 2021-2, Class A20, 2.500% VRN 6/25/51 (c) (g)	944,768	730,645
Series 2021-4, Class A20, 2.500% VRN 10/25/51 (c) (g)	429,497	332,156
GS Mortgage-Backed Securities Trust, Series 2021-GR1, Class A4, 2.500% VRN 11/25/51 (c) (g)	456,413	353,827
Hundred Acre Wood Trust		
Series 2021, Class A, 2.500% VRN 7/25/51 (c) (g)	855,478	660,523
Series 2021-INV2, Class A27, 2.500% VRN 10/25/51 (c) (g)	272,913	210,719
JP Morgan Mortgage Trust		
Series 2019-INV3, Class A15, 3.500% VRN 5/25/50 (c) (g)	102,190	90,304
Series 2020-LTV1, Class A15, 3.500% VRN 6/25/50 (c) (g)	12,580	11,963
Sequoia Mortgage Trust		
Series 2018-CH1, Class A19, 4.000% VRN 3/25/48 (c) (g)	84,350	76,427
Series 2018-CH2, Class A21, 4.000% VRN 6/25/48 (c) (g)	22,594	20,500
		2,487,064
TOTAL NON-U.S. GOVERNMENT AGENCY OBLIGATIONS (Cost \$52,223,154)		47,242,528
SOVEREIGN DEBT OBLIGATIONS — 18.4%		
1Malaysia Development Berhad Global Investments Ltd. 4.400% 3/09/23 (c)	1,000,000	979,000
Albania Government International Bond 3.500% 10/09/25 EUR (c) (d)	160,000	158,750
3.500% 6/16/27 EUR (c) (d)	105,000	99,752
3.500% 11/23/31 EUR (c) (d)	490,000	423,702
Australia Government International Bond 1.250% 5/21/32 AUD (d)	1,464,000	781,713
3.000% 3/21/47 AUD (c) (d)	808,000	436,867
Brazil Notas do Tesouro Nacional Serie B 6.000% 5/15/25 BRL (d)	270,000	205,238
Brazil Notas do Tesouro Nacional Serie F 10.000% 1/01/27 BRL (d)	2,855,000	497,025
Bundesobligation Bond 0.000% 4/16/27 EUR (c) (d)	3,957,000	3,808,380
1.300% 10/15/27 EUR (c) (d)	4,933,000	4,995,009
Bundesrepublik Deutschland Bundesanleihe 0.000% 2/15/32 EUR (c) (d)	4,695,000	4,019,784
0.000% 8/15/52 EUR (c) (d)	278,210	148,772
1.700% 8/15/32 EUR (c) (d)	5,095,000	5,084,163
Canadian Government International Bond 1.250% 3/01/27 CAD (d)	8,345,000	5,633,861
Canadian Government Real Return Bond 4.000% 12/01/31 CAD (d)	1,720,952	1,543,046
Cyprus Government International Bond 0.950% 1/20/32 EUR (c) (d)	610,000	486,701
2.750% 2/26/34 EUR (c) (d)	93,000	85,216
2.750% 5/03/49 EUR (c) (d)	99,000	84,486
3.750% 7/26/23 EUR (c) (d)	120,000	128,822
3.750% 7/26/23 EUR (c) (d)	100,000	107,352
Czech Republic Government International Bond 2.400% 9/17/25 CZK (c) (d)	22,450,000	919,799

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
2.750% 7/23/29 CZK (d)	\$ 51,630,000	\$ 1,971,631
French Republic Government Bond OAT		
0.000% 5/25/32 EUR (c) (d)	2,880,000	2,332,888
1.250% 5/25/36 EUR (c) (d)	1,771,000	1,485,484
Hellenic Republic Government Bond		
0.750% 6/18/31 EUR (c) (d)	585,000	461,531
Hungary Government International Bond		
2.250% 4/20/33 HUF (d)	1,259,450,000	1,954,018
4.750% 11/24/32 HUF (d)	53,110,000	102,946
5.000% 2/22/27 EUR (c) (d)	247,000	262,266
Iceland Government International Bond		
0.000% 4/15/28 EUR (c) (d)	346,000	304,561
Indonesia Government International Bond		
3.750% 6/14/28 EUR (c) (d)	1,280,000	1,328,018
Ireland Government International Bond		
1.500% 5/15/50 EUR (c) (d)	73,000	54,023
2.000% 2/18/45 EUR (c) (d)	191,000	163,679
Israel Government International Bond		
1.500% 1/18/27 EUR (c) (d)	530,000	525,391
1.750% 8/31/25 ILS (d)	4,274,000	1,163,127
5.500% 1/31/42 ILS (d)	3,470,000	1,284,900
Italy Buoni Poliennali Del Tesoro		
2.800% 3/01/67 EUR (c) (d)	1,064,000	766,617
Japan Government CPI Linked Bond		
0.005% 3/10/31 JPY (d)	209,861,927	1,660,634
0.100% 3/10/24 JPY (d)	110,472,200	859,855
0.100% 9/10/24 JPY (d)	290,838,600	2,272,592
0.100% 3/10/25 JPY (d)	307,954,500	2,407,508
Japan Government Ten Year Bond		
0.400% 3/20/25 JPY (d)	336,200,000	2,581,367
Japan Government Thirty Year Bond		
0.700% 12/20/51 JPY (d)	20,300,000	123,760
1.000% 3/20/52 JPY (d)	329,400,000	2,172,725
1.300% 6/20/52 JPY (d)	221,250,000	1,580,444
1.400% 9/20/52 JPY (d)	219,950,000	1,601,961
1.700% 9/20/44 JPY (d)	280,250,000	2,273,049
2.200% 9/20/39 JPY (d)	240,750,000	2,121,917
2.500% 9/20/37 JPY (d)	50,250,000	460,543
Latvia Government International Bond		
0.375% 10/07/26 EUR (c) (d)	2,114,000	2,013,284
Malaysia Government International Bond		
3.844% 4/15/33 MYR (d)	590,000	130,719
4.065% 6/15/50 MYR (d)	2,820,000	583,820
4.642% 11/07/33 MYR (d)	3,255,000	770,063
4.736% 3/15/46 MYR (d)	5,640,000	1,312,881
4.921% 7/06/48 MYR (d)	6,150,000	1,455,083
4.935% 9/30/43 MYR (d)	325,000	78,346
Mexican Bonos		
8.500% 5/31/29 MXN (d)	4,567,000	227,878
New South Wales Treasury Corp.		
4.000% 5/20/26 AUD (c) (d)	680,000	463,049
4.000% 5/20/26 AUD (c) (d)	860,000	585,620
North Macedonia Government International Bond		
1.625% 3/10/28 EUR (c) (d)	400,000	333,445
Norway Government International Bond		
3.000% 3/14/24 NOK (c) (d)	2,700,000	275,104

Philippine Government International Bond
0.250% 4/28/25 EUR (d)

125,000

123,848

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Province of Ontario Canada		
3.500% 6/02/43 CAD (d)	\$ 140,000	\$ 91,541
3.500% 6/02/43 CAD (d)	62,000	40,540
Romanian Government International Bond		
2.125% 3/07/28 EUR (c) (d)	430,000	382,806
2.875% 10/28/24 EUR (c) (d)	100,000	105,209
2.875% 5/26/28 EUR (c) (d)	560,000	518,220
3.624% 5/26/30 EUR (c) (d)	509,000	444,402
Serbia Government International Bond		
1.000% 9/23/28 EUR (c) (d)	850,000	649,265
1.500% 6/26/29 EUR (c) (d)	450,000	344,273
1.650% 3/03/33 EUR (c) (d)	435,000	281,429
2.050% 9/23/36 EUR (c) (d)	280,000	167,946
2.050% 9/23/36 EUR (c) (d)	375,000	224,928
Serbia Treasury Bond		
4.500% 8/20/32 RSD (d)	75,180,000	562,989
Singapore Government International Bond		
0.500% 11/01/25 SGD (d)	1,350,000	942,601
1.625% 7/01/31 SGD (d)	1,338,000	889,070
2.375% 6/01/25 SGD (d)	480,000	353,531
2.875% 7/01/29 SGD (d)	4,113,000	3,038,535
Slovenia Government International Bond		
0.000% 2/12/31 EUR (c) (d)	155,000	122,628
1.500% 3/25/35 EUR (c) (d)	342,000	278,789
1.750% 11/03/40 EUR (c) (d)	450,000	337,008
2.250% 3/03/32 EUR (c) (d)	170,000	161,179
3.125% 8/07/45 EUR (c) (d)	1,035,000	961,914
Sweden Government International Bond		
2.250% 6/01/32 SEK (c) (d)	33,150,000	3,147,341
Thailand Government International Bond		
2.000% 12/17/31 THB (d)	91,434,000	2,539,869
3.650% 6/20/31 THB (d)	19,528,000	614,156
United Kingdom Gilt		
0.625% 6/07/25 GBP (c) (d)	1,393,000	1,571,909
0.625% 10/22/50 GBP (c) (d)	732,000	394,140
4.250% 6/07/32 GBP (c) (d)	5,041,000	6,376,021
4.250% 12/07/46 GBP (c) (d)	959,000	1,194,530
4.750% 12/07/30 GBP (c) (d)	1,326,000	1,728,231
		<u>101,723,013</u>
TOTAL SOVEREIGN DEBT OBLIGATIONS		
(Cost \$118,935,754)		<u>101,723,013</u>
U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (h) — 21.1%		
Collateralized Mortgage Obligations — 0.1%		
Federal Home Loan Mortgage Corp. REMICS		
Series 4977, Class IO 4.500% 5/25/50	257,044	49,134
Government National Mortgage Association		
Series 2022-63, Class LM 3.500% 10/20/50	260,000	228,617
		<u>277,751</u>
Pass-Through Securities — 20.4%		
Federal Home Loan Mortgage Corp.		
Pool #SB8147 1.500% 4/01/37	335,553	291,862
Pool #RB5148 2.000% 3/01/42	874,015	738,136
Pool #RA3046 2.000% 7/01/50	27,443	22,567

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #SD8146 2.000% 5/01/51	\$ 528,317	\$ 434,460
Pool #RA5258 2.000% 5/01/51	857,987	705,027
Pool #QC2565 2.000% 6/01/51	31,637	26,016
Pool #RA6505 2.000% 12/01/51	1,475,019	1,209,290
Pool #QD9658 2.000% 2/01/52	33,831	27,694
Pool #SD8199 2.000% 3/01/52	4,635,715	3,794,783
Pool #SD1217 2.000% 3/01/52	243,632	200,426
Pool #SD8204 2.000% 4/01/52	222,721	182,318
Pool #RA7324 2.000% 5/01/52	147,949	121,527
Pool #SD8218 2.000% 6/01/52	965,968	790,437
Pool #RB5149 2.500% 3/01/42	679,553	593,288
Pool #QC1292 2.500% 5/01/51	19,689	16,802
Pool #QC3425 2.500% 6/01/51	242,325	206,641
Pool #QC2902 2.500% 6/01/51	38,700	33,448
Pool #QC3551 2.500% 7/01/51	22,341	19,051
Pool #QC5137 2.500% 8/01/51	62,815	53,506
Pool #QC5575 2.500% 8/01/51	78,659	67,002
Pool #SD7548 2.500% 11/01/51	930,544	802,822
Pool #SD0854 2.500% 1/01/52	92,058	78,358
Pool #RA6623 2.500% 1/01/52	1,103,357	943,640
Pool #SD8200 2.500% 3/01/52	687,893	585,414
Pool #SD7554 2.500% 4/01/52	357,750	307,753
Pool #SD8212 2.500% 5/01/52	2,788,791	2,372,462
Pool #ZS7930 3.000% 1/01/33	409,453	389,456
Pool #RB5162 3.000% 6/01/42	120,310	108,035
Pool #RB5166 3.000% 7/01/42	67,750	60,838
Pool #RB5173 3.000% 8/01/42	57,538	51,667
Pool #SD1497 3.000% 4/01/43	316,139	287,540
Pool #ZS4693 3.000% 12/01/46	71,771	64,672
Pool #G08756 3.000% 4/01/47	30,583	27,565
Pool #SD0080 3.000% 9/01/49	139,726	125,863
Pool #SD7531 3.000% 12/01/50	162,525	145,537
Pool #RA6348 3.000% 11/01/51	435,558	384,381
Pool #QD8560 3.000% 3/01/52	388,758	342,564
Pool #QE4043 3.000% 6/01/52	463,421	408,210
Pool #SD8220 3.000% 6/01/52	652,929	575,345
Pool #SD7555 3.000% 8/01/52	936,229	834,124
Pool #SB0015 3.500% 6/01/33	147,453	142,262
Pool #U90690 3.500% 6/01/42	48,143	45,251
Pool #U99051 3.500% 6/01/43	49,518	46,163
Pool #ZM3532 3.500% 6/01/47	188,962	175,642
Pool #ZT0179 3.500% 11/01/47	301,898	281,938
Pool #RA1202 3.500% 8/01/49	113,498	105,435
Pool #SD0212 3.500% 12/01/49	158,418	147,115
Pool #SD1361 3.500% 2/01/50	845,999	793,238
Pool #SD0617 3.500% 11/01/50	108,734	100,942
Pool #SB8171 4.000% 6/01/37	68,834	67,275
Pool #SB0727 4.000% 8/01/37	230,201	225,131
Pool #RA1906 4.000% 12/01/49	197,669	189,359
Pool #SD8039 4.000% 1/01/50	244,829	232,777
Pool #SD1035 4.000% 5/01/52	225,298	212,342
Pool #SD8244 4.000% 9/01/52	345,198	324,700
Pool #SD0422 4.500% 7/01/45	121,498	120,553
Pool #RA2607 4.500% 5/01/50	52,201	50,969
Pool #ZS3941 5.000% 12/01/41	36,843	37,338
Pool #QF0658 5.000% 8/01/52	763,347	759,256

Pool #QF1305 5.000% 10/01/52
Federal National Mortgage Association

69,842

68,971

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA4581 1.500% 4/01/37	\$ 690,605	\$ 600,683
Pool #MA4601 1.500% 5/01/37	573,317	498,667
Pool #MA4685 1.500% 6/01/37	464,805	404,284
Pool #MA4519 1.500% 1/01/42	598,977	487,409
Pool #MA4586 2.000% 4/01/42	1,022,210	863,292
Pool #FS2763 2.000% 8/01/42	49,172	41,528
Pool #CA6587 2.000% 8/01/50	117,370	96,739
Pool #MA4158 2.000% 10/01/50	276,224	227,670
Pool #MA4325 2.000% 5/01/51	2,382,393	1,959,154
Pool #CB2357 2.000% 12/01/51	1,200,506	984,231
Pool #MA4547 2.000% 2/01/52	594,466	486,814
Pool #BT6598 2.000% 2/01/52	908,783	743,359
Pool #CB2766 2.000% 2/01/52	369,314	302,434
Pool #CB2848 2.000% 2/01/52	597,117	488,984
Pool #FS0733 2.000% 2/01/52	531,308	436,753
Pool #FS1618 2.000% 3/01/52	275,732	226,489
Pool #MA4562 2.000% 3/01/52	6,160,039	5,042,590
Pool #FS1571 2.000% 4/01/52	25,963	21,253
Pool #MA4622 2.000% 6/01/52	927,599	759,040
Pool #BM3859 2.500% 8/01/31	93,572	87,887
Pool #BC9043 2.500% 11/01/31	291,616	273,534
Pool #BM1890 2.500% 1/01/32	68,722	64,632
Pool #CB3210 2.500% 3/01/37	1,646,840	1,512,818
Pool #MA4628 2.500% 6/01/37	514,849	472,790
Pool #BV7856 2.500% 7/01/37	439,777	403,850
Pool #CB4726 2.500% 9/01/37	132,493	121,669
Pool #MA4326 2.500% 5/01/51	932,933	798,177
Pool #BT1265 2.500% 6/01/51	341,174	290,934
Pool #BT0163 2.500% 6/01/51	53,005	45,812
Pool #CB1331 2.500% 8/01/51	741,938	633,380
Pool #FM8320 2.500% 8/01/51	80,353	68,521
Pool #CB1783 2.500% 10/01/51	1,520,307	1,296,434
Pool #CB1866 2.500% 10/01/51	1,144,123	975,645
Pool #CB2638 2.500% 1/01/52	1,283,966	1,093,692
Pool #CB2635 2.500% 1/01/52	1,234,322	1,050,440
Pool #CB2538 2.500% 1/01/52	1,099,421	940,274
Pool #CB2804 2.500% 2/01/52	753,753	644,054
Pool #FS2573 2.500% 3/01/52	87,212	75,132
Pool #FS1629 2.500% 4/01/52	81,685	69,465
Pool #MA4578 2.500% 4/01/52	1,736,208	1,477,016
Pool #CB3665 2.500% 5/01/52	994,430	845,664
Pool #AS7056 3.000% 4/01/31	222,491	212,598
Pool #BM5111 3.000% 11/01/33	103,604	98,544
Pool #CA4885 3.000% 12/01/34	383,824	363,760
Pool #BO7256 3.000% 1/01/35	191,505	181,315
Pool #FM2547 3.000% 2/01/35	119,137	112,909
Pool #FM8540 3.000% 11/01/35	215,767	205,769
Pool #AL9412 3.000% 11/01/36	220,308	206,436
Pool #CA5597 3.000% 4/01/40	851,351	780,186
Pool #MA4632 3.000% 6/01/42	30,941	27,784
Pool #MA4695 3.000% 7/01/42	178,927	160,671
Pool #BM4221 3.000% 1/01/43	123,491	111,918
Pool #BM5468 3.000% 2/01/43	187,835	170,843
Pool #AB9248 3.000% 5/01/43	48,978	44,547
Pool #AU1629 3.000% 7/01/43	13,709	12,460
Pool #AS0406 3.000% 9/01/43	77,414	70,556

Pool #BM5469 3.000% 3/01/44	352,794	320,878
Pool #BM3380 3.000% 6/01/46	312,182	283,453

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA2670 3.000% 7/01/46	\$ 111,111	\$ 100,260
Pool #MA2806 3.000% 11/01/46	209,041	188,366
Pool #AS8295 3.000% 11/01/46	277,067	250,444
Pool #BD8462 3.000% 11/01/46	1,212,486	1,093,704
Pool #FM1000 3.000% 4/01/47	174,259	157,025
Pool #MA2956 3.000% 4/01/47	137,069	123,427
Pool #BM1418 3.000% 4/01/47	1,395,455	1,258,749
Pool #BM4744 3.000% 6/01/47	120,403	108,834
Pool #FM1572 3.000% 9/01/48	247,687	223,190
Pool #FM5499 3.000% 2/01/49	163,022	146,899
Pool #FM1445 3.000% 8/01/49	118,965	107,162
Pool #CA4108 3.000% 9/01/49	769,267	691,021
Pool #FM2870 3.000% 3/01/50	213,591	191,598
Pool #CA5540 3.000% 4/01/50	14,013	12,548
Pool #CA6314 3.000% 7/01/50	195,973	173,345
Pool #BQ1348 3.000% 8/01/50	132,153	117,514
Pool #CA6738 3.000% 8/01/50	235,680	209,572
Pool #BQ5052 3.000% 9/01/50	6,880	6,128
Pool #FM7072 3.000% 4/01/51	683,864	611,527
Pool #CB2432 3.000% 12/01/51	29,750	26,227
Pool #FM3462 3.500% 12/01/33	318,614	308,173
Pool #AS4449 3.500% 2/01/35	104,091	99,649
Pool #FM3340 3.500% 5/01/35	9,981	9,590
Pool #FM8137 3.500% 9/01/35	105,858	102,554
Pool #MA1283 3.500% 12/01/42	40,910	38,391
Pool #MA1373 3.500% 3/01/43	62,900	58,584
Pool #MA1437 3.500% 5/01/43	59,528	55,443
Pool #MA1546 3.500% 8/01/43	141,882	132,147
Pool #AL6167 3.500% 1/01/44	566,352	527,492
Pool #AS5182 3.500% 6/01/45	361,462	338,467
Pool #BC1747 3.500% 1/01/46	910,610	851,543
Pool #BM5785 3.500% 9/01/46	94,527	88,513
Pool #FS1400 3.500% 7/01/47	24,913	23,379
Pool #BM4582 3.500% 8/01/47	107,024	100,082
Pool #BM3122 3.500% 10/01/47	1,061,819	991,617
Pool #MA3210 3.500% 12/01/47	34,151	31,701
Pool #CA0858 3.500% 12/01/47	49,070	45,549
Pool #MA3238 3.500% 1/01/48	208,545	193,454
Pool #BH9277 3.500% 2/01/48	371,634	344,741
Pool #FM1001 3.500% 11/01/48	44,636	41,462
Pool #FM8196 3.500% 12/01/48	739,749	687,604
Pool #FM3972 3.500% 7/01/50	252,449	232,544
Pool #FM8086 3.500% 7/01/51	118,822	108,738
Pool #MA4514 3.500% 1/01/52	514,029	468,858
Pool #BV3533 3.500% 2/01/52	40,000	36,452
Pool #FS1694 4.000% 7/01/35	130,821	128,635
Pool #FS1883 4.000% 6/01/37	141,444	138,240
Pool #BF0198 4.000% 11/01/40	101,802	97,817
Pool #MA0639 4.000% 2/01/41	327,229	317,277
Pool #BM3385 4.000% 6/01/45	537,220	518,917
Pool #FS1042 4.000% 9/01/45	534,576	518,198
Pool #FM2673 4.000% 10/01/45	808,385	783,414
Pool #AL8387 4.000% 3/01/46	581,546	561,551
Pool #FS2119 4.000% 3/01/46	93,174	90,310
Pool #MA3088 4.000% 8/01/47	30,942	29,714
Pool #MA3121 4.000% 9/01/47	282,262	270,881

Pool #MA3467 4.000% 9/01/48	3,982	3,803
Pool #BM5527 4.000% 10/01/48	104,945	101,107

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #BM5147 4.000% 10/01/48	\$ 24,539	\$ 23,726
Pool #FM3664 4.000% 3/01/49	377,779	360,776
Pool #CA3503 4.000% 5/01/49	51,782	49,359
Pool #CA4571 4.000% 11/01/49	80,305	76,402
Pool #CA4823 4.000% 12/01/49	110,154	104,800
Pool #FS1792 4.000% 5/01/52	226,888	213,787
Pool #CB4379 4.000% 8/01/52	212,201	199,865
Pool #AL0065 4.500% 4/01/41	187,757	186,398
Pool #AI1888 4.500% 5/01/41	208,503	206,995
Pool #AL0160 4.500% 5/01/41	272,458	270,484
Pool #AL6536 4.500% 3/01/45	278,723	276,391
Pool #BM4185 4.500% 9/01/46	153,975	152,590
Pool #FM2899 4.500% 11/01/46	348,699	346,087
Pool #FM5708 4.500% 5/01/47	172,746	171,497
Pool #BM3148 4.500% 11/01/47	138,548	137,042
Pool #BM4343 4.500% 5/01/48	145,159	143,762
Pool #CA2207 4.500% 8/01/48	31,132	30,530
Pool #CA5186 4.500% 1/01/50	25,260	24,712
Pool #CA5696 4.500% 5/01/50	86,999	84,157
Pool #MA4656 4.500% 7/01/52	881,924	852,013
Pool #MA4701 4.500% 8/01/52	217,261	209,892
Pool #BW3031 4.500% 8/01/52	380,000	366,963
Pool #MA4805 4.500% 11/01/52	212,845	205,493
Pool #AD6438 5.000% 6/01/40	48,659	49,313
Pool #FM8543 5.000% 11/01/44	203,693	206,537
Pool #AL9893 5.000% 2/01/45	264,120	268,832
Pool #FM4212 5.000% 12/01/47	418,197	421,639
Pool #FS1510 5.000% 10/01/48	310,381	314,238
Pool #FS2620 5.000% 8/01/52	46,754	46,273
Pool #BW7752 5.000% 10/01/52	99,849	98,604
Pool #BM3279 5.500% 5/01/44	640,514	658,853
Pool #BM4971 6.000% 7/01/41	186,146	194,691
Pool #MA4894 6.000% 1/01/53	3,125,000	3,176,933
Government National Mortgage Association		
Pool #MA7472 2.500% 7/20/51	752,378	655,608
Pool #AA5821 3.000% 11/15/42	40,272	36,834
Pool #MA0852 3.500% 3/20/43	114,385	107,787
Pool # 784346 3.500% 7/20/47	25,451	23,665
Pool # 784793 3.500% 12/20/47	6,755	6,281
Pool #MA5234 4.500% 11/20/41	140,025	138,866
Government National Mortgage Association II		
Pool #MA7254 2.000% 3/20/51	530,373	448,191
Pool #MA7471 2.000% 7/20/51	1,837,942	1,551,283
Pool #MA7533 2.000% 8/20/51	2,566,075	2,165,050
Pool #MA7826 2.000% 1/20/52	803,124	675,793
Pool #MA8041 2.000% 5/20/52	508,811	427,505
Pool #MA6819 2.500% 8/20/50	325,402	284,490
Pool #MA7589 2.500% 9/20/51	390,201	339,649
Pool #MA7649 2.500% 10/20/51	2,491,047	2,167,539
Pool #MA7705 2.500% 11/20/51	628,755	546,658
Pool #MA7767 2.500% 12/20/51	1,334,275	1,159,640
Pool #MA7936 2.500% 3/20/52	217,647	188,956
Pool #MA2600 3.000% 2/20/45	79,515	72,413
Pool #MA2891 3.000% 6/20/45	646,246	588,521
Pool #MA3662 3.000% 5/20/46	103,379	93,919
Pool #MA3802 3.000% 7/20/46	49,118	44,623

Pool #MA3873 3.000% 8/20/46	284,868	258,799
Pool #MA4195 3.000% 1/20/47	346,700	314,540

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA6144 3.000% 9/20/49	\$ 13,542	\$ 11,833
Pool #MA6209 3.000% 10/20/49	82,699	72,262
Pool #MA6399 3.000% 1/20/50	41,252	36,046
Pool #MA6531 3.000% 3/20/50	134,070	117,151
Pool #MA6589 3.000% 4/20/50	63,165	55,193
Pool #MA6757 3.000% 7/20/50	108,547	94,544
Pool #MA7473 3.000% 7/20/51	853,083	765,420
Pool #MA7650 3.000% 10/20/51	1,405,483	1,259,738
Pool #MA8098 3.000% 6/20/52	1,038,312	927,478
Pool #MA0318 3.500% 8/20/42	160,584	151,012
Pool #783802 3.500% 4/20/43	182,373	170,429
Pool #MA1012 3.500% 5/20/43	341,324	321,636
Pool #MA1090 3.500% 6/20/43	135,349	127,542
Pool #785587 3.500% 12/20/44	231,825	218,454
Pool #AL1773 3.500% 1/20/45	168,368	156,973
Pool #MA3173 3.500% 10/20/45	222,730	209,535
Pool #MA3310 3.500% 12/20/45	73,131	68,730
Pool #MA3597 3.500% 4/20/46	107,826	101,202
Pool #MA3663 3.500% 5/20/46	84,115	78,869
Pool #MA3736 3.500% 6/20/46	225,984	211,890
Pool #MA3803 3.500% 7/20/46	16,226	15,214
Pool #MA3937 3.500% 9/20/46	108,047	101,309
Pool #786092 3.500% 1/20/47	151,436	142,465
Pool #MA4382 3.500% 4/20/47	19,561	18,298
Pool #MA4586 3.500% 7/20/47	37,131	34,734
Pool #MA4719 3.500% 9/20/47	13,002	12,154
Pool #BC1919 3.500% 9/20/47	50,132	46,551
Pool #MA4900 3.500% 12/20/47	177,969	166,369
Pool #784474 3.500% 2/20/48	159,045	147,684
Pool #MA784472 3.500% 2/20/48	292,462	271,571
Pool #785087 3.500% 2/20/48	591,290	554,413
Pool #784504 3.500% 2/20/48	123,206	114,328
Pool #784891 3.500% 4/20/48	460,582	427,971
Pool #785327 3.500% 10/20/49	65,302	60,657
Pool #MA3245 4.000% 11/20/45	157,447	152,763
Pool #MA4511 4.000% 6/20/47	98,298	94,574
Pool #MA4720 4.000% 9/20/47	345,134	331,738
Pool #MA4838 4.000% 11/20/47	85,632	82,308
Pool #MA6934 4.000% 10/20/50	821,268	783,038
Pool #MA8346 4.000% 10/20/52	1,388,379	1,316,482
Pool #MA2894 4.500% 6/20/45	147,805	147,376
Pool #MA2963 4.500% 7/20/45	55,450	55,289
Pool #MA3312 4.500% 12/20/45	2,655	2,648
Pool #MA4588 4.500% 7/20/47	261,570	259,176
Pool #MA4654 4.500% 8/20/47	40,327	39,895
Pool #MA5079 4.500% 3/20/48	61,973	61,173
Pool #MA5265 4.500% 6/20/48	213	209
Pool #MA5399 4.500% 8/20/48	52,052	51,169
Pool #MA5711 4.500% 1/20/49	83,839	82,469
Pool #786255 4.500% 9/20/49	70,839	69,548
Pool #MA8347 4.500% 10/20/52	1,398,910	1,359,331
Pool #MA4781 5.000% 10/20/47	274,877	279,141
Pool #MA5194 5.000% 5/20/48	58,343	58,792
Pool #BF2644 5.000% 5/20/48	4,649	4,658
Pool #BF2878 5.000% 6/20/48	15,725	15,758
Pool #MA5266 5.000% 6/20/48	409,242	412,265

Pool #MA5988 5.000% 6/20/49	173,629	174,410
Pool #MA5081 5.500% 3/20/48	46,443	48,048

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Pool #MA5140 5.500% 4/20/48	\$ 35,730	\$ 36,965
Pool #MA5195 5.500% 5/20/48	104,814	108,075
Pool #MA5469 5.500% 9/20/48	397	408
Pool #MA5531 5.500% 10/20/48	9,573	9,748
Pool #MA5598 5.500% 11/20/48	47,042	47,903
Pool #MA5654 5.500% 12/20/48	131,613	133,693
Pool #MA5713 5.500% 1/20/49	32,223	33,075
Pool #MA5820 5.500% 3/20/49	34,234	35,128
Pool #MA8429 5.500% 11/20/52	1,353,162	1,361,860
Government National Mortgage Association II TBA		
5.500% 1/23/53 (i)	1,923,000	1,934,418
6.000% 1/23/53 (i)	1,045,000	1,062,471
6.500% 1/23/53 (i)	1,210,000	1,237,698
7.000% 1/23/53 (i)	355,000	364,430
Uniform Mortgage Backed Securities TBA		
1.500% 1/17/38 (i)	1,330,000	1,156,684
2.000% 1/12/53 (i)	955,000	781,011
		<u>112,990,859</u>
Whole Loans — 0.6%		
Federal Home Loan Mortgage Corp. Structured Agency Credit Risk Debt Notes		
Series 2021-HQA1, Class M1, 30 day SOFR + .700% 4.628% FRN 8/25/33 (c)	16,006	15,940
Series 2022-DNA1, Class M1B, 30 day SOFR + 1.850% 5.778% FRN 1/25/42 (c)	535,000	507,707
Series 2021-DNA2, Class M2, 30 day SOFR + 2.300% 6.228% FRN 8/25/33 (c)	260,000	257,049
Series 2022-DNA5, Class M1A, 30 day SOFR + 2.950% 6.878% FRN 6/25/42 (c)	744,856	753,047
Federal National Mortgage Association Connecticut Avenue Securities Trust		
Series 2022-R01, Class 1M1, 30 day SOFR + 1.000% 4.928% FRN 12/25/41 (c)	81,260	80,172
Series 2022-R02, Class 2M1, 30 day SOFR + 1.200% 5.128% FRN 1/25/42 (c)	943,520	927,185
Series 2021-R03, Class 1M2, 30 day SOFR + 1.650% 5.578% FRN 12/25/41 (c)	345,000	325,235
Series 2022-R03, Class 1M1, 30 day SOFR + 2.100% 6.028% FRN 3/25/42 (c)	248,467	246,911
Series 2017-C06, Class 1M2B, 1 mo. USD LIBOR + 2.650% 7.039% FRN 2/25/30	349,874	352,042
		<u>3,465,288</u>
TOTAL U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES		
(Cost \$125,493,007)		<u>116,733,898</u>
U.S. TREASURY OBLIGATIONS — 21.5%		
U.S. Treasury Bonds & Notes — 21.5%		
U.S. Treasury Bond		
2.875% 5/15/52	9,080,000	7,356,710
3.000% 8/15/52	8,900,000	7,423,787
3.250% 5/15/42	4,575,000	4,041,453
3.375% 8/15/42	11,400,000	10,261,072
4.000% 11/15/42 (e)	8,030,000	7,919,765
4.000% 11/15/52	7,980,000	8,069,775
U.S. Treasury Note		
1.125% 1/15/25	6,165,000	5,772,146
1.750% 3/15/25	2,110,000	1,995,039

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
3.000% 7/15/25 (j)	\$ 12,600,000	\$ 12,215,175
3.125% 8/31/27	10,465,000	10,082,110
3.875% 11/30/27 (e)	11,905,000	11,857,446
3.875% 12/31/27	7,130,000	7,102,271
3.875% 11/30/29	3,420,000	3,405,296
4.125% 9/30/27	11,850,000	11,912,772
4.125% 10/31/27	1,400,000	1,407,175
4.125% 11/15/32	7,910,000	8,093,365
		<u>118,915,357</u>
TOTAL U.S. TREASURY OBLIGATIONS (Cost \$123,697,483)		<u>118,915,357</u>
TOTAL BONDS & NOTES (Cost \$589,683,177)		<u>534,599,739</u>
TOTAL PURCHASED OPTIONS(#) — 0.0% (Cost \$127,775)		<u>92,249</u>
	<u>Number of Shares</u>	
MUTUAL FUNDS — 4.0% Diversified Financial Services — 4.0% State Street Navigator Securities Lending Government Money Market Portfolio (k)	22,183,340	<u>22,183,340</u>
TOTAL MUTUAL FUNDS (Cost \$22,183,340)		<u>22,183,340</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$611,994,292)		<u>556,875,328</u>
SHORT-TERM INVESTMENTS — 5.9% Mutual Fund — 2.0% T. Rowe Price Government Reserve Investment Fund	11,216,403	<u>11,216,403</u>
	<u>Principal Amount</u>	
Repurchase Agreement — 0.2% Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (l)	\$ 1,254,745	<u>1,254,745</u>
Sovereign Debt Obligations — 3.0% Canadian Treasury Bill		
3.811% 1/19/23 CAD (d) (m)	1,050,000	773,819
3.818% 1/19/23 CAD (d) (m)	1,050,000	773,819
Japan Treasury Discount Bill		
0.000% 1/16/23 JPY (d)	1,330,000,000	10,134,630
0.000% 5/10/23 JPY (d)	677,000,000	5,161,136
U.S. Treasury Bill — 0.7% U.S. Treasury Bill		
1.465% 1/26/23 (m)	900,000	897,768

MassMutual Select T. Rowe Price Bond Asset Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
4.019% 1/26/23 (m)	\$ 3,185,000	\$ 3,177,104
		<u>4,074,872</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$31,968,100)		<u>33,389,424</u>
TOTAL INVESTMENTS — 106.5% (Cost \$643,962,392) (n)		590,264,752
Less Unfunded Loan Commitments — (0.0)%		(15,871)
NET INVESTMENTS — 106.5% (Cost \$643,946,521)		590,248,881
Other Assets/(Liabilities) — (6.5)%		<u>(35,964,914)</u>
NET ASSETS — 100.0%		<u>\$ 554,283,967</u>

Abbreviation Legend

CLO	Collateralized Loan Obligation
FRN	Floating Rate Note
REMICS	Real Estate Mortgage Investment Conduits
STEP	Step Up Bond
TBA	To Be Announced
VRN	Variable Rate Note

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) All or a portion of the security represents unsettled loan commitments at December 31, 2022 where the rate will be determined at time of settlement.
- (b) Unfunded or partially unfunded loan commitments.
- (c) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$148,791,545 or 26.84% of net assets.
- (d) The principal amount of the security is in foreign currency. The market value is in U.S. dollars.
- (e) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$22,266,220 or 4.02% of net assets. The Fund received \$536,930 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (*Note 2*).
- (f) Security is perpetual and has no stated maturity date.
- (g) Certain variable rate securities are not based on a published reference rate and spread but are determined by the issuer or agent and are based on current market conditions. These securities do not indicate a reference rate and spread in their description above. The rates shown are the current interest rates at December 31, 2022.
- (h) May contain securities that are issued by a U.S. Government Agency, but are unsecured and are not guaranteed by a U.S. Government Agency.
- (i) A portion of this security is purchased on a when-issued, delayed-delivery or forward commitment basis.
- (j) All or a portion of this security is pledged/held as collateral for open derivatives.
- (k) Represents investment of security lending cash collateral. (*Note 2*).
- (l) Maturity value of \$1,254,923. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,279,885.
- (m) The rate shown represents yield-to-maturity.
- (n) See Note 3 for aggregate cost for federal tax purposes.

(#) OTC Options Purchased

Description	Counterparty	Expiration Date	Exercise Price	No. of Contracts	Notional Amount	Value	Premiums Paid (Received)	Unrealized Appreciation/ (Depreciation)
Call								
USD Call GBP Put	Citibank N.A.	2/03/23	1.19	3,175,000	USD	3,175,000	\$ 26,848 \$ 33,411	\$ (6,563)
USD Call EUR Put	Morgan Stanley & Co. LLC	1/06/23	0.99	3,900,000	USD	3,900,000	4 16,575	(16,571)
USD Call CAD Put	UBS AG	3/03/23	1.39	3,200,000	USD	3,200,000	15,155 32,536	(17,381)
							<u>\$ 42,007</u>	<u>\$ (40,515)</u>
Put								
USD Put JPY Call	Bank of America N.A.	2/17/23	128.80	1,600,000	USD	1,600,000	\$ 23,123 \$ 21,248	\$ 1,875
USD Put JPY Call	Morgan Stanley & Co. LLC	3/17/23	127.85	1,600,000	USD	1,600,000	27,119 24,005	3,114
							<u>\$ 50,242</u>	<u>\$ 4,989</u>
							<u>\$ 92,249</u>	<u>\$ (35,526)</u>

Forward contracts

Counterparty	Settlement Date	Currency Purchased	Currency Sold	Unrealized Appreciation (Depreciation)
Bank of America N.A.	1/20/23	CAD	311,886 USD	232,169 \$ (1,806)
Bank of America N.A.	1/20/23	USD	1,334,678 JPY	182,289,000 (57,054)
Bank of America N.A.	2/24/23	GBP	1,619,767 USD	1,934,066 26,667
Barclays Bank PLC	2/24/23	USD	92,022 SEK	1,023,783 (6,372)
BNP Paribas SA	1/13/23	USD	188,691 CZK	4,473,000 (9,132)
BNP Paribas SA	1/13/23	USD	276,232 HUF	111,456,000 (21,698)
BNP Paribas SA	1/13/23	HUF	23,249,973 USD	57,292 4,857
BNP Paribas SA	1/13/23	MXN	1,791,000 USD	90,679 1,084
BNP Paribas SA	1/13/23	CNH	2,782,000 USD	389,559 12,735
BNP Paribas SA	1/19/23	USD	1,309,749 CLP	1,290,631,453 (209,719)
BNP Paribas SA	1/19/23	CLP	344,734,117 USD	363,597 42,261
BNP Paribas SA	1/20/23	USD	117,665 CHF	115,000 (6,919)
BNP Paribas SA	1/20/23	USD	138,769 CAD	188,000 (90)
BNP Paribas SA	1/20/23	AUD	186,000 USD	121,368 5,352
BNP Paribas SA	1/20/23	CAD	124,000 USD	92,419 (831)
BNP Paribas SA	1/20/23	USD	7,375,303 JPY	1,054,335,850 (674,294)
BNP Paribas SA	2/17/23	PLN	743,000 USD	159,554 9,416
BNP Paribas SA	2/24/23	USD	189,806 GBP	159,000 (2,664)
BNP Paribas SA	2/24/23	USD	1,079,743 EUR	1,042,000 (39,503)
BNP Paribas SA	2/24/23	EUR	261,796 USD	270,676 10,527
BNP Paribas SA	3/02/23	USD	456,157 BRL	2,475,587 (7,804)
BNP Paribas SA	3/10/23	USD	256,144 MYR	1,136,000 (2,449)
Citibank N.A.	1/13/23	USD	554,044 MXN	11,312,028 (25,534)
Citibank N.A.	1/13/23	CNH	1,564,000 USD	219,898 6,266
Citibank N.A.	1/13/23	USD	1,754,243 CNH	12,651,203 (75,195)
Citibank N.A.	1/13/23	ZAR	14,216,932 USD	783,881 52,211
Citibank N.A.	1/19/23	USD	807,718 INR	66,322,450 6,702
Citibank N.A.	1/19/23	ILS	5,684,000 USD	1,611,248 6,677
Citibank N.A.	1/19/23	USD	4,215,745 ILS	14,497,607 89,064
Citibank N.A.	1/20/23	USD	542,602 CAD	756,095 (15,860)
Citibank N.A.	1/20/23	USD	635,785 JPY	92,771,194 (72,500)
Citibank N.A.	1/20/23	USD	2,424,878 AUD	3,765,238 (140,337)
Citibank N.A.	1/20/23	CAD	249,271 USD	182,570 1,545
Citibank N.A.	1/20/23	JPY	230,328,000 USD	1,715,000 43,498
Citibank N.A.	2/24/23	USD	1,191,713 SEK	12,378,200 2,067

Citibank N.A.	2/24/23	EUR	1,347,475	USD	1,441,468	5,897
Citibank N.A.	2/24/23	USD	1,177,732	GBP	968,468	5,398
Citibank N.A.	3/10/23	USD	144,686	THB	5,051,000	(2,061)
Citibank N.A.	3/17/23	USD	199,253	RSD	22,154,963	(2,885)
Citibank N.A.	3/17/23	USD	313,874	SGD	423,642	(2,785)
Deutsche Bank AG	1/13/23	USD	1,741,855	HUF	773,226,695	(325,036)
Deutsche Bank AG	1/13/23	HUF	29,785,223	USD	78,014	1,604
Deutsche Bank AG	1/19/23	USD	47,474	INR	3,905,835	301
Deutsche Bank AG	1/19/23	CLP	144,073,997	USD	146,399	23,220
Deutsche Bank AG	1/20/23	USD	4,817,419	JPY	677,410,939	(354,448)
Deutsche Bank AG	3/10/23	USD	2,974,644	THB	103,986,252	(46,471)
Goldman Sachs International	1/19/23	USD	805,217	TWD	25,522,000	(26,367)
Goldman Sachs International	1/19/23	USD	48,608	INR	4,023,006	20
Goldman Sachs International	1/19/23	CLP	135,065,414	USD	135,447	23,566
Goldman Sachs International	1/19/23	ILS	216,418	USD	61,412	190
Goldman Sachs International	1/19/23	INR	104,372,000	USD	1,267,635	(7,071)
HSBC Bank USA	1/13/23	USD	1,211,538	CNH	8,694,538	(45,743)
HSBC Bank USA	1/20/23	JPY	216,507,759	USD	1,488,681	164,303
HSBC Bank USA	2/24/23	USD	731,787	EUR	702,838	(23,154)
HSBC Bank USA	2/24/23	USD	387,551	GBP	318,533	1,966
HSBC Bank USA	3/10/23	USD	4,101,477	MYR	18,115,833	(22,318)
JP Morgan Chase Bank N.A.	1/13/23	USD	1,126,406	MXN	22,966,846	(50,312)
JP Morgan Chase Bank N.A.	1/13/23	USD	544,850	CNH	3,928,258	(23,199)
JP Morgan Chase Bank N.A.	2/17/23	USD	300,289	RSD	35,456,575	(23,247)
JP Morgan Chase Bank N.A.	2/24/23	EUR	307,123	USD	325,068	4,823
JP Morgan Chase Bank N.A.	2/24/23	USD	158,152	EUR	150,497	(3,502)
JP Morgan Chase Bank N.A.	3/17/23	USD	206,899	SGD	278,254	(1,087)
Morgan Stanley & Co. LLC	1/19/23	CLP	554,009,438	USD	578,389	73,849
Morgan Stanley & Co. LLC	1/20/23	USD	10,545,471	JPY	1,551,802,375	(1,302,161)
Morgan Stanley & Co. LLC	1/20/23	JPY	64,492,952	USD	445,181	47,207
Morgan Stanley & Co. LLC	2/24/23	USD	9,992,056	GBP	8,395,007	(170,129)
Morgan Stanley & Co. LLC	2/24/23	USD	21,253,200	EUR	20,395,371	(654,121)
Morgan Stanley & Co. LLC	3/02/23	USD	242,224	BRL	1,333,009	(7,601)
Royal Bank of Canada	1/20/23	USD	1,553,631	CAD	2,086,215	12,725
Royal Bank of Canada	1/20/23	JPY	93,453,241	USD	643,025	70,468
Royal Bank of Canada	1/20/23	CAD	61,975	USD	45,433	342
Royal Bank of Canada	1/20/23	AUD	222,000	USD	150,986	260
State Street Bank and Trust	1/13/23	USD	157,284	CNY	1,148,000	(7,973)
State Street Bank and Trust	1/13/23	CZK	2,442,000	USD	98,231	9,769
State Street Bank and Trust	1/20/23	USD	278,614	NOK	2,939,186	(21,595)
State Street Bank and Trust	1/20/23	USD	10,199,523	CAD	13,981,005	(127,029)
State Street Bank and Trust	1/20/23	USD	13,933,669	JPY	1,998,589,366	(1,325,071)
State Street Bank and Trust	1/20/23	CAD	1,836,716	USD	1,340,777	15,845
State Street Bank and Trust	1/20/23	JPY	474,993,775	USD	3,611,071	15,390
State Street Bank and Trust	2/24/23	USD	42,382,298	EUR	40,705,945	(1,341,260)
State Street Bank and Trust	2/24/23	USD	8,039,180	GBP	6,715,888	(90,426)
State Street Bank and Trust	2/24/23	EUR	1,775,832	USD	1,894,821	12,657
State Street Bank and Trust	2/24/23	GBP	596,792	USD	722,788	(369)
State Street Bank and Trust	3/17/23	USD	4,129,894	SGD	5,581,009	(41,735)
UBS AG	1/13/23	USD	820,129	ZAR	14,216,932	(15,963)
UBS AG	1/13/23	USD	2,699,395	CZK	67,971,340	(306,702)
UBS AG	1/19/23	USD	668,670	CLP	650,167,724	(96,776)
UBS AG	1/19/23	USD	840,148	INR	68,837,555	8,755
UBS AG	1/19/23	CLP	762,916,211	USD	789,357	108,829
UBS AG	1/19/23	INR	26,093,000	USD	316,375	(1,234)
UBS AG	1/20/23	USD	542,489	CAD	756,095	(15,973)
UBS AG	1/20/23	USD	2,858,169	AUD	4,583,894	(264,789)
UBS AG	1/20/23	CHF	4,388,000	USD	4,423,833	329,875
UBS AG	1/20/23	JPY	138,350,100	USD	954,663	101,606
UBS AG	1/20/23	USD	1,489,062	CHF	1,410,000	(38,452)
UBS AG	2/17/23	USD	1,855,018	PLN	9,000,900	(191,928)

UBS AG	2/24/23	USD	1,987,269	SEK	20,630,333	4,526
UBS AG	2/24/23	EUR	1,267,736	USD	1,341,896	19,820
UBS AG	3/17/23	USD	569,760	SGD	771,819	(7,151)
						<u>\$ (6,973,745)</u>

Futures contracts

				Expiration Date	Number of Contracts	Notional Amount	Value/ Net Unrealized Appreciation/ (Depreciation)
Long							
Euro-Schatz				3/08/23	3	\$ 342,144	\$ (3,604)
Australia 3 Year Bond				3/15/23	112	8,253,177	(109,374)
Korea 10 Year Bond				3/21/23	26	2,330,230	(69,495)
Korea 3 Year Bond				3/21/23	147	12,127,493	(101,277)
Canada 10 Year Bond				3/22/23	57	5,348,864	(189,817)
U.S. Treasury Ultra 10 Year				3/22/23	154	18,361,355	(146,042)
U.S. Treasury Ultra Bond				3/22/23	43	5,995,550	(220,112)
							<u>\$ (839,721)</u>
Short							
Euro-BTP				3/08/23	15	\$ (1,790,519)	\$ 41,619
Japanese 10 Year Bond				3/13/23	5	(5,644,517)	102,761
UK Long Gilt				3/29/23	35	(4,449,328)	222,234
							<u>\$ 366,614</u>

Centrally Cleared Credit Default Swaps - Buy Protection

Reference Obligation/ Index	Rate Paid by Fund	Payment Frequency	Termination Date		Notional Amount	Value	Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
iTraxx Europe Crossover Series 38†	1.000%	Quarterly	12/20/2027	EUR	2,960,000	\$ (2,050)	\$ 71,958	\$ (74,008)
iTraxx Europe Crossover Series 38†	5.000%	Quarterly	12/20/2027	EUR	7,805,000	(87,937)	63,278	(151,215)
Lanxess Chemicals Co.	1.000%	Quarterly	12/20/2027	EUR	400,000	19,841	33,677	(13,836)
Republic of Mexico	1.000%	Quarterly	12/20/2027	USD	372,000	4,804	4,532	272
CDX.NA.IG Series 39†	1.000%	Quarterly	12/20/2027	USD	8,381,000	(65,960)	(90,593)	24,633
CDX.NA.HY Series 39	5.000%	Quarterly	12/20/2027	USD	5,184,000	(29,155)	(41,829)	12,674
						<u>\$ (160,457)</u>	<u>\$ 41,023</u>	<u>\$ (201,480)</u>

Centrally Cleared Credit Default Swaps - Sell Protection††

Reference Obligation/ Index	Rate Received by Fund	Payment Frequency	Termination Date	Credit Rating	Notional Amount	Value	Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
Republic of Mexico	1.000%	Quarterly	12/20/27	NR*	USD 4,059,000	\$ (52,419)	\$ (144,418)	\$ 91,999

OTC Credit Default Swaps-Sell Protection††

Reference Obligation/ Index	Rate Paid by Fund	Payment Frequency	Counterparty	Credit Rating	Termination Date	Notional Amount	Value	Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
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	3-Month CNREPOFIX=CFXS-Reuters	Quarterly	Fixed 2.255%	Quarterly	1/26/27	CNY	24,350,000	(57,197)	—	(57,197)
	3-Month CNREPOFIX=CFXS-Reuters	Quarterly	Fixed 2.355%	Quarterly	4/15/27	CNY	37,000,000	(70,683)	—	(70,683)
	3-Month CNREPOFIX=CFXS-Reuters	Quarterly	Fixed 2.440%	Quarterly	7/27/27	CNY	5,400,000	(11,554)	—	(11,554)
	6-Month PRIBOR	Semi-Annually	Fixed 6.180%	Annually	6/21/27	CZK	6,266,000	8,982	—	8,982
	6-Month PRIBOR	Semi-Annually	Fixed 6.180%	Annually	6/21/27	CZK	6,266,000	8,982	—	8,982
	6-Month PRIBOR	Semi-Annually	Fixed 6.333%	Annually	6/22/27	CZK	12,494,000	21,205	—	21,205
	6-Month PRIBOR	Semi-Annually	Fixed 6.285%	Annually	6/22/27	CZK	6,304,000	10,184	—	10,184
	6-Month EURIBOR	Semi-Annually	Fixed -0.001%	Annually	10/20/25	EUR	690,000	(67,247)	—	(67,247)
	6-Month EURIBOR	Semi-Annually	Fixed -0.001%	Annually	11/04/25	EUR	1,030,000	(100,352)	—	(100,352)
	12 Month CPTFE	Maturity	Fixed 2.575%	Maturity	12/15/27	EUR	2,225,000	(17,936)	—	(17,936)
	12 Month CPTFE	Maturity	Fixed 2.573%	Maturity	12/15/27	EUR	2,225,000	(18,221)	—	(18,221)
	6-Month EURIBOR	Semi-Annually	Fixed 3.160%	Annually	12/30/27	EUR	5,430,000	(23,129)	—	(23,129)
	6-Month EURIBOR	Semi-Annually	Fixed -0.057%	Annually	5/19/28	EUR	1,060,000	(182,254)	—	(182,254)
	6-Month EURIBOR	Semi-Annually	Fixed -0.101%	Annually	6/01/28	EUR	500,000	(87,784)	—	(87,784)
	6-Month EURIBOR	Semi-Annually	Fixed -0.100%	Annually	6/03/28	EUR	365,000	(64,011)	—	(64,011)
	6-Month EURIBOR	Semi-Annually	Fixed 2.638%	Annually	12/16/29	EUR	1,275,000	(47,423)	—	(47,423)
	6-Month EURIBOR	Semi-Annually	Fixed 0.830%	Annually	3/02/32	EUR	4,300,000	(857,206)	—	(857,206)
	6-Month EURIBOR	Semi-Annually	Fixed 1.222%	Annually	4/04/32	EUR	1,350,000	(227,069)	—	(227,069)
	6-Month EURIBOR	Semi-Annually	Fixed 1.627%	Annually	4/21/32	EUR	946,000	(127,301)	—	(127,301)
	6-Month EURIBOR	Semi-Annually	Fixed 1.640%	Annually	5/02/32	EUR	950,000	(127,146)	—	(127,146)
	6-Month EURIBOR	Semi-Annually	Fixed 2.796%	Annually	11/17/32	EUR	82,000	(2,995)	—	(2,995)
	6-Month EURIBOR	Semi-Annually	Fixed 2.803%	Annually	11/18/32	EUR	140,000	(5,034)	—	(5,034)
	6-Month EURIBOR	Semi-Annually	Fixed 2.735%	Annually	11/21/32	EUR	131,000	(5,496)	—	(5,496)
	6-Month EURIBOR	Semi-Annually	Fixed 2.730%	Annually	11/23/32	EUR	2,400,000	(102,033)	—	(102,033)
	6-Month EURIBOR	Semi-Annually	Fixed 2.717%	Annually	11/24/32	EUR	200,000	(8,747)	—	(8,747)
	6-Month EURIBOR	Semi-Annually	Fixed 2.683%	Annually	11/30/32	EUR	126,000	(5,932)	—	(5,932)
	6-Month EURIBOR	Semi-Annually	Fixed 2.698%	Annually	11/30/32	EUR	54,000	(2,471)	—	(2,471)
	28 Day-MXN-TIIE-Banxico	Monthly	Fixed 5.499%	Monthly	5/04/27	MXN	15,000,000	(92,679)	—	(92,679)
	Fixed 3.090%	Annually	6-Month WIBOR	Semi-Annually	2/20/28	PLN	1,070,000	32,033	—	32,033

Fixed 2.850%	Annually	6-Month WIBOR	Semi- Annually	4/06/28	PLN	100,000	3,306	—	3,306
Fixed 2.920%	Annually	6-Month WIBOR	Semi- Annually	5/07/28	PLN	200,000	6,612	—	6,612
Fixed 3.030%	Annually	6-Month WIBOR	Semi- Annually	5/18/28	PLN	300,000	9,600	—	9,600
Fixed 1.715%	Annually	6-Month WIBOR	Semi- Annually	9/24/29	PLN	1,700,000	91,313	—	91,313
Fixed 1.780%	Annually	6-Month WIBOR	Semi- Annually	10/22/29	PLN	823,529	44,165	—	44,165
Fixed 1.775%	Annually	6-Month WIBOR	Semi- Annually	10/22/29	PLN	1,176,471	63,165	—	63,165
							<u><u>\$(1,969,378)</u></u>	<u><u>\$ —</u></u>	<u><u>\$ (1,969,378)</u></u>

* Rating represents a weighted average of the ratings of all securities included in the underlying index for the credit default swap. Ratings used in the weighted average are from Moody's Investors Service, Inc., S&P Global Ratings, or Fitch Ratings, whichever is the highest for each constituent. All ratings are as of the report date and do not reflect subsequent changes.

† Payment is based on a percentage of the index. Reference entities are a number of individual issuers comprising the index.

†† For each credit derivative with sold protection, the credit ratings of the entities referenced, as rated by any rating organization, are included in the equivalent S&P Global Ratings or Western Asset Management Company's rating category, as applicable. The reference entity rating represents the likelihood of a potential payment by the Fund if the referenced entity experiences a credit event as of period end. Notional amounts represent the maximum potential amount of future payments (undiscounted) the Fund could be required to make under the credit derivatives with sold protection.

Currency Legend	
AUD	Australian Dollar
BRL	Brazilian Real
CAD	Canadian Dollar
CHF	Swiss Franc
CLP	Chilean Peso
CNH	Offshore Chinese Yuan
CNY	Chinese Yuan Renminbi
CZK	Czech Koruna
EUR	Euro
GBP	British Pound
HUF	Hungarian Forint
ILS	Israeli Shekel
INR	Indian Rupee
JPY	Japanese Yen
MXN	Mexican Peso
MYR	Malaysian Ringgit
NOK	Norwegian Krone
PLN	Polish Zloty
RSD	Serbian dinar
SEK	Swedish Krona
SGD	Singapore Dollar
THB	Thai Baht
TWD	Taiwan Dollar
USD	U.S. Dollar
ZAR	South African Rand

MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	<u>Principal Amount</u>	<u>Value</u>
BONDS & NOTES — 93.4%		
CORPORATE DEBT — 29.9%		
Bermuda — 0.3%		
Ooredoo International Finance Ltd.		
2.625% 4/08/31 (a)	\$ 260,000	\$ <u>223,174</u>
Brazil — 0.9%		
Globo Comunicacao e Participacoes SA		
4.875% 1/22/30 (a)	850,000	<u>717,400</u>
Canada — 0.2%		
MEGlobal Canada ULC		
5.875% 5/18/30 (a)	200,000	<u>201,000</u>
Cayman Islands — 1.5%		
Cosan Overseas Ltd.		
8.250% (a) (b)	100,000	100,000
DP World Crescent Ltd.		
3.875% 7/18/29 (a)	300,000	280,083
Health & Happiness H&H International Holdings Ltd.		
5.625% 10/24/24 (a)	200,000	175,800
Lamar Funding Ltd.		
3.958% 5/07/25 (a)	500,000	473,055
Lima Metro Line 2 Finance Ltd.		
5.875% 7/05/34 (a)	94,621	90,930
Sea Ltd., Convertible,		
0.250% 9/15/26 (c)	100,000	<u>73,250</u>
		<u>1,193,118</u>
Chile — 3.3%		
AES Andes SA 5 year USD Swap + 4.644%		
7.125% VRN 3/26/79 (a)	850,000	804,313
Agrosuper SA		
4.600% 1/20/32 (a)	200,000	176,791
Banco Santander Chile		
3.177% 10/26/31 (a)	375,000	319,219
Celulosa Arauco y Constitucion SA		
4.200% 1/29/30 (a)	200,000	185,977
5.150% 1/29/50 (a)	250,000	217,941
Corp. Nacional del Cobre de Chile		
3.150% 1/14/30 (a)	200,000	176,547
Empresa de los Ferrocarriles del Estado		
3.068% 8/18/50 (a)	450,000	281,053
Empresa de Transporte de Pasajeros Metro SA		
3.693% 9/13/61 (a)	200,000	136,959
4.700% 5/07/50 (a)	200,000	167,799
VTR Comunicaciones SpA		
4.375% 4/15/29 (a)	250,000	145,625

**MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)**

	Principal Amount	Value
5.125% 1/15/28 (a)	\$ 200,000	\$ 124,210
		<u>2,736,434</u>
Colombia — 1.7%		
Banco Davivienda SA 10 year CMT + 5.097%		
6.650% VRN (a) (b)	400,000	307,000
Banco de Bogota SA		
6.250% 5/12/26 (a)	250,000	245,000
Bancolombia SA 5 year CMT + 2.944%		
4.625% VRN 12/18/29 (c)	200,000	175,500
Ecopetrol SA		
4.625% 11/02/31	355,000	271,268
5.875% 5/28/45	445,000	309,925
6.875% 4/29/30	50,000	45,329
		<u>1,354,022</u>
Hong Kong — 0.2%		
Lenovo Group Ltd.		
3.421% 11/02/30 (a) (c)	200,000	159,075
India — 1.3%		
Adani International Container Terminal Pvt Ltd.		
3.000% 2/16/31 (a)	515,625	404,301
Adani Ports & Special Economic Zone Ltd.		
4.200% 8/04/27 (a)	200,000	175,806
4.375% 7/03/29 (a)	200,000	168,459
Bharti Airtel Ltd.		
3.250% 6/03/31 (a)	400,000	339,180
		<u>1,087,746</u>
Indonesia — 0.9%		
Bank Negara Indonesia Persero Tbk PT		
3.750% 3/30/26 (a)	213,000	196,420
Pertamina Persero PT		
5.625% 5/20/43 (a)	200,000	182,737
Perusahaan Perseroan Persero PT Perusahaan Listrik Negara		
4.000% 6/30/50 (a)	200,000	143,145
6.150% 5/21/48 (a)	200,000	189,990
		<u>712,292</u>
Ireland — 0.4%		
LCPR Senior Secured Financing DAC		
5.125% 7/15/29 (a) (c)	400,000	331,363
Israel — 0.8%		
ICL Group Ltd.		
6.375% 5/31/38 (a)	150,000	146,666
ICL Group Ltd.		
6.375% 5/31/38 (a)	200,000	195,554
Leviathan Bond Ltd.		
6.125% 6/30/25 (a)	300,000	293,250
		<u>635,470</u>

**MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)**

	Principal Amount	Value
Jamaica — 0.1%		
TransJamaican Highway Ltd. 5.750% 10/10/36 (a)	\$ 142,860	\$ 114,002
Kazakhstan — 0.9%		
KazMunayGas National Co. JSC 3.500% 4/14/33 (a)	200,000	148,200
5.750% 4/19/47 (a)	500,000	386,450
6.375% 10/24/48 (a)	230,000	189,077
		<u>723,727</u>
Mauritius — 0.5%		
Greenko Power II Ltd. 4.300% 12/13/28 (a)	248,300	207,598
HTA Group Ltd/Mauritius 7.000% 12/18/25 (a)	200,000	184,000
		<u>391,598</u>
Mexico — 8.1%		
Axtel SAB de CV 6.375% 11/14/24 (a)	200,000	164,122
Banco Mercantil Del Norte SA 5 year CMT + 4.967% 6.750% VRN (a) (b)	200,000	195,000
10 year CMT + 7.760% 8.375% VRN (a) (b)	200,000	198,095
BBVA Bancomer SA 5 year CMT + 2.650% 5.125% VRN 1/18/33 (a)	600,000	538,617
5 year CMT + 4.308% 5.875% VRN 9/13/34 (a)	200,000	184,623
Cemex SAB de CV 5.450% 11/19/29 (a)	200,000	192,220
Cometa Energia SA de CV 6.375% 4/24/35 (a)	342,800	328,231
Industrias Penoles SAB de CV 4.750% 8/06/50 (a)	200,000	164,952
Infraestructura Energetica Nova SAPI de CV 4.875% 1/14/48 (a)	300,000	228,776
Mexico City Airport Trust 5.500% 7/31/47 (a)	1,342,000	1,033,340
Petroleos Mexicanos 4.500% 1/23/26	500,000	450,625
6.500% 3/13/27	850,000	775,556
6.500% 6/02/41	2,360,000	1,535,770
6.840% 1/23/30	55,000	45,453
8.750% 6/02/29	620,000	581,258
		<u>6,616,638</u>
Netherlands — 0.5%		
Minejesa Capital BV 5.625% 8/10/37 (a)	500,000	389,253
Panama — 0.7%		
Aeropuerto Internacional de Tocumen SA 4.000% 8/11/41 (a)	200,000	165,392
Banco General SA 10 year CMT + 3.665% 5.250% VRN (a) (b)	200,000	165,500

**MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)**

	Principal Amount	Value
Banco Nacional de Panama		
2.500% 8/11/30 (a)	\$ 310,000	\$ 248,465
		<u>579,357</u>
Paraguay — 0.2%		
Telfon Celuar Del Paragu SA		
5.875% 4/15/27 (a)	200,000	<u>193,600</u>
Peru — 0.2%		
Consortio Transmantaro SA		
4.700% 4/16/34 (a)	200,000	<u>182,000</u>
Philippines — 1.1%		
Globe Telecom, Inc.		
3.000% 7/23/35 (a)	400,000	289,152
International Container Terminal Services, Inc.		
4.750% 6/17/30 (a)	400,000	348,440
Manila Water Co., Inc.		
4.375% 7/30/30 (a)	300,000	<u>253,200</u>
		<u>890,792</u>
Qatar — 0.7%		
QatarEnergy Trading LLC		
2.250% 7/12/31 (a)	300,000	248,239
3.125% 7/12/41 (a)	450,000	<u>345,785</u>
		<u>594,024</u>
Saudi Arabia — 1.1%		
Saudi Arabian Oil Co.		
3.500% 4/16/29 (a)	200,000	183,452
4.250% 4/16/39 (a)	800,000	<u>714,163</u>
		<u>897,615</u>
Sri Lanka — 0.1%		
SriLankan Airlines Ltd.		
7.000% 6/25/24 (a)	300,000	<u>126,000</u>
Thailand — 1.3%		
Bangkok Bank PCL 5 year CMT + 1.900%		
3.733% VRN 9/25/34 (a)	375,000	313,305
Bangkok Bank PCL/Hong Kong 5 year CMT + 2.150%		
3.466% VRN 9/23/36 (a)	200,000	157,097
Thaioil Treasury Center Co. Ltd.		
3.500% 10/17/49 (a)	200,000	120,124
3.500% 10/17/49 (a)	800,000	<u>480,498</u>
		<u>1,071,024</u>
United Arab Emirates — 1.0%		
Emirates NBD Bank PJSC 6 year CMT + 3.656%		
6.125% VRN (a) (b)	200,000	196,810
Oztel Holdings SPC Ltd.		
6.625% 4/24/28 (a)	200,000	200,011

**MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)**

	Principal Amount	Value
Ruwais Power Co. PJSC 6.000% 8/31/36 (a)	\$ 400,000	\$ 410,000
		<u>806,821</u>
United States — 1.2%		
Citgo Holding, Inc. 9.250% 8/01/24 (a)	165,000	164,616
International Bank for Reconstruction & Development 0.000% 3/31/27	275,000	242,540
Kosmos Energy Ltd. 7.125% 4/04/26 (a)	200,000	170,500
MercadoLibre, Inc., Convertible, 2.000% 8/15/28	90,000	182,385
Periama Holdings LLC 5.950% 4/19/26 (a)	200,000	186,112
		<u>946,153</u>
Venezuela — 0.7%		
Petroleos de Venezuela SA 5.375% 4/12/27 (a) (d)	900,000	40,500
6.000% 5/16/24 (a) (d)	2,400,000	114,000
6.000% 11/15/26 (a) (d)	1,750,000	78,750
8.500% 10/27/20 (a) (d)	250,000	46,875
9.000% 11/17/21 (a) (d)	4,990,000	224,550
9.750% 5/17/35 (a) (d)	150,000	7,125
12.750% 2/17/22 (a) (d)	1,500,000	67,512
		<u>579,312</u>
TOTAL CORPORATE DEBT (Cost \$31,386,463)		<u>24,453,010</u>
SOVEREIGN DEBT OBLIGATIONS — 63.5%		
Albania — 1.5%		
Albania Government International Bond 3.500% 6/16/27 EUR (a) (e)	190,000	180,505
3.500% 11/23/31 EUR (a) (e)	600,000	518,819
3.500% 11/23/31 EUR (a) (e)	590,000	510,172
		<u>1,209,496</u>
Angola — 2.0%		
Angolan Government International Bond 8.000% 11/26/29 (a)	200,000	175,112
8.250% 5/09/28 (a)	925,000	840,640
9.125% 11/26/49 (a)	300,000	233,640
9.500% 11/12/25 (a)	400,000	410,864
		<u>1,660,256</u>
Argentina — 1.0%		
Argentine Republic Government International Bond 0.000% 12/15/35	845,000	3,591
0.500% STEP 7/09/30	396,224	106,529
1.500% STEP 7/09/35	649,923	164,751

MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)

	Principal Amount	Value
3.875% STEP 1/09/38	\$ 1,677,891	\$ 530,738
		<u>805,609</u>
Azerbaijan — 0.3%		
Republic of Azerbaijan International Bond		
3.500% 9/01/32 (a)	300,000	<u>249,750</u>
Bahamas — 0.8%		
Bahamas Government International Bond		
6.000% 11/21/28 (a)	875,000	<u>667,282</u>
Bahrain — 2.9%		
Bahrain Government International Bond		
5.625% 5/18/34 (a)	900,000	776,379
6.750% 9/20/29 (a)	350,000	347,550
7.000% 10/12/28 (a)	1,075,000	1,080,603
7.500% 9/20/47 (a)	200,000	<u>179,162</u>
		<u>2,383,694</u>
Barbados — 0.1%		
Barbados Government International Bond		
6.500% 10/01/29 (a)	75,000	<u>69,525</u>
Bermuda — 0.5%		
Bermuda Government International Bond		
5.000% 7/15/32 (a)	400,000	<u>397,066</u>
Brazil — 0.7%		
Brazil Notas do Tesouro Nacional Serie F		
10.000% 1/01/31 BRL (e)	2,200,000	364,149
Brazilian Government International Bond		
5.000% 1/27/45	240,000	<u>177,796</u>
		<u>541,945</u>
Chile — 0.4%		
Chile Government International Bond		
3.500% 1/31/34	200,000	170,203
4.000% 1/31/52	200,000	<u>154,178</u>
		<u>324,381</u>
Colombia — 2.9%		
Colombia Government International Bond		
3.000% 1/30/30 (c)	800,000	611,812
3.125% 4/15/31	400,000	296,996
4.125% 5/15/51	925,000	553,140
4.500% 1/28/26	200,000	187,970
5.000% 6/15/45	350,000	237,860
5.625% 2/26/44	400,000	293,234
Colombian TES		
7.000% 3/26/31 COP (e)	1,335,300,000	<u>194,290</u>
		<u>2,375,302</u>
Costa Rica — 0.2%		
Costa Rica Government International Bond		
5.625% 4/30/43 (a)	200,000	<u>163,487</u>

MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)

	Principal Amount	Value
Dominican Republic — 5.0%		
Dominican Republic International Bond		
4.500% 1/30/30 (a)	\$ 655,000	\$ 557,326
4.875% 9/23/32 (a)	650,000	539,549
4.875% 9/23/32 (a)	1,075,000	892,331
5.500% 2/22/29 (a)	165,000	151,304
5.875% 1/30/60 (a)	1,175,000	860,410
6.500% 2/15/48 (a)	300,000	246,762
6.850% 1/27/45 (a)	1,000,000	866,788
		<u>4,114,470</u>
Ecuador — 1.9%		
Ecuador Government International Bond		
0.000% 7/31/30 (a)	165,446	64,616
1.500% STEP 7/31/40 (a)	408,900	166,864
2.500% STEP 7/31/35 (a)	50,000	22,987
2.500% STEP 7/31/35 (a)	1,358,550	624,577
5.500% STEP 7/31/30 (a)	1,002,100	643,918
		<u>1,522,962</u>
Egypt — 1.4%		
Egypt Government International Bond		
5.875% 2/16/31 (a)	200,000	138,820
7.600% 3/01/29 (a)	275,000	223,396
8.500% 1/31/47 (a)	550,000	365,572
8.500% 1/31/47 (a)	640,000	425,393
		<u>1,153,181</u>
El Salvador — 0.9%		
El Salvador Government International Bond		
5.875% 1/30/25 (a)	715,000	464,425
6.375% 1/18/27 (a)	125,000	54,687
7.650% 6/15/35 (a)	100,000	39,821
7.650% 6/15/35 (a)	360,000	143,357
		<u>702,290</u>
Ghana — 0.3%		
Ghana Government International Bond		
8.625% 4/07/34 (a)	200,000	71,240
10.750% 10/14/30 (a)	200,000	139,652
		<u>210,892</u>
Guatemala — 0.9%		
Guatemala Government Bond		
4.875% 2/13/28 (a)	400,000	384,658
5.250% 8/10/29 (a)	200,000	191,980
5.375% 4/24/32 (a)	200,000	195,220
		<u>771,858</u>
India — 2.0%		
Export Import Bank of India		
2.250% 1/13/31 (a)	205,000	161,060
3.250% 1/15/30 (a)	1,500,000	1,297,487

MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)

	Principal Amount	Value
Export-Import Bank of India		
2.250% 1/13/31 (a)	\$ 200,000	\$ 157,132
		<u>1,615,679</u>
Indonesia — 5.0%		
Indonesia Government International Bond		
4.625% 4/15/43 (a)	1,400,000	1,261,572
Perusahaan Penerbit SBSN Indonesia		
3.800% 6/23/50 (a)	200,000	155,000
4.450% 2/20/29 (a)	775,000	762,600
4.550% 3/29/26 (a)	1,350,000	1,346,894
Perusahaan Penerbit SBSN Indonesia III		
2.800% 6/23/30 (a)	650,000	568,750
		<u>4,094,816</u>
Ivory Coast — 3.1%		
Ivory Coast Government International Bond		
4.875% 1/30/32 EUR (a) (e)	250,000	210,659
6.125% 6/15/33 (a)	2,125,000	1,885,938
6.625% 3/22/48 EUR (a) (e)	525,000	394,570
		<u>2,491,167</u>
Jamaica — 1.2%		
Jamaica Government International Bond		
6.750% 4/28/28	200,000	211,519
8.000% 3/15/39	500,000	583,742
8.000% 3/15/39	175,000	204,310
		<u>999,571</u>
Jordan — 1.6%		
Jordan Government International Bond		
5.850% 7/07/30 (a)	1,200,000	1,072,560
7.750% 1/15/28 (a)	240,000	242,453
		<u>1,315,013</u>
Mexico — 0.3%		
Mexico Government International Bond		
7.750% 5/29/31 MXN (e)	4,500,000	213,690
Mongolia — 0.2%		
Mongolia Government International Bond		
4.450% 7/07/31 (a)	250,000	192,555
Morocco — 2.2%		
Morocco Government International Bond		
3.000% 12/15/32 (a)	425,000	337,703
3.000% 12/15/32 (a)	600,000	476,758
4.000% 12/15/50 (a)	1,425,000	973,819
		<u>1,788,280</u>
Nigeria — 0.7%		
Nigeria Government International Bond		
7.875% 2/16/32 (a)	750,000	563,797

**MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)**

	Principal Amount	Value
Oman — 3.6%		
Oman Government International Bond		
4.750% 6/15/26 (a)	\$ 600,000	\$ 579,115
4.750% 6/15/26 (a)	550,000	530,856
5.375% 3/08/27 (a)	200,000	195,564
5.625% 1/17/28 (a)	200,000	197,212
6.500% 3/08/47 (a)	390,000	354,647
6.750% 10/28/27 (a)	200,000	206,988
6.750% 10/28/27 (a)	400,000	413,976
6.750% 1/17/48 (a)	300,000	280,666
7.000% 1/25/51 (a)	200,000	193,000
		<u>2,952,024</u>
Pakistan — 0.2%		
Pakistan Government International Bond		
7.875% 3/31/36 (a)	562,000	<u>196,700</u>
Panama — 1.5%		
Panama Government International Bond		
2.252% 9/29/32	1,050,000	777,564
4.500% 1/19/63	360,000	253,441
6.400% 2/14/35	200,000	202,852
		<u>1,233,857</u>
Paraguay — 1.3%		
Paraguay Government International Bond		
4.950% 4/28/31 (a)	400,000	386,552
5.400% 3/30/50 (a)	600,000	517,017
5.400% 3/30/50 (a)	200,000	172,339
		<u>1,075,908</u>
Peru — 1.1%		
Peruvian Government International Bond		
2.780% 12/01/60	670,000	388,418
3.300% 3/11/41	300,000	218,002
3.550% 3/10/51	130,000	92,331
6.150% 8/12/32 PEN (a) (e)	850,000	196,447
		<u>895,198</u>
Philippines — 0.7%		
Philippine Government International Bond		
2.650% 12/10/45	900,000	<u>603,305</u>
Qatar — 1.4%		
Qatar Government International Bond		
4.400% 4/16/50 (a)	200,000	182,951
4.400% 4/16/50 (a)	200,000	182,951
4.817% 3/14/49 (a)	800,000	778,000
		<u>1,143,902</u>
Romania — 1.6%		
Romanian Government International Bond		
2.625% 12/02/40 EUR (a) (e)	50,000	29,786
2.875% 4/13/42 EUR (a) (e)	125,000	74,717
3.000% 2/14/31 (a)	300,000	235,722

MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)

	Principal Amount	Value
3.000% 2/14/31 (a)	\$ 174,000	\$ 136,719
3.375% 1/28/50 EUR (a) (e)	450,000	276,768
4.000% 2/14/51 (a)	160,000	105,885
4.000% 2/14/51 (a)	722,000	477,805
		<u>1,337,402</u>
Saudi Arabia — 1.1%		
Saudi Government International Bond		
2.750% 2/03/32 (a)	200,000	174,185
3.750% 1/21/55 (a)	400,000	314,728
5.000% 4/17/49 (a)	400,000	376,150
		<u>865,063</u>
Senegal — 2.3%		
Senegal Government International Bond		
4.750% 3/13/28 EUR (a) (e)	300,000	276,369
6.250% 5/23/33 (a)	200,000	164,800
6.250% 5/23/33 (a)	1,750,000	1,442,000
		<u>1,883,169</u>
Serbia — 1.0%		
Serbia Government Bond		
2.125% 12/01/30 (a)	1,100,000	788,920
South Africa — 1.7%		
Republic of South Africa Government International Bond		
5.650% 9/27/47	210,000	153,741
5.875% 4/20/32	425,000	382,500
6.250% 3/08/41	400,000	340,080
7.300% 4/20/52	560,000	481,376
		<u>1,357,697</u>
Sri Lanka — 0.9%		
Sri Lanka Government International Bond		
6.125% 6/03/25 (a)	200,000	63,973
6.125% 6/03/25 (a)	500,000	159,932
6.825% 7/18/26 (a)	200,000	62,301
6.850% 11/03/25 (a)	1,400,000	441,130
		<u>727,336</u>
Suriname — 0.6%		
Suriname Government International Bond		
9.250% 10/26/26 (a)	631,000	500,383
Turkey — 1.9%		
Republic of Turkey		
8.600% 9/24/27	275,000	275,153
Turkey Government International Bond		
4.250% 4/14/26	200,000	177,700
4.875% 10/09/26	400,000	357,526
4.875% 4/16/43	450,000	291,850
6.000% 1/14/41	350,000	252,511
9.875% 1/15/28	200,000	206,951
		<u>1,561,691</u>

**MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)**

	Principal Amount	Value
Ukraine — 0.0%		
Ukraine Government International Bond, 1.258% FRN 8/01/41 (a) (f)	\$ 115,000	\$ 32,059
Uruguay — 0.5%		
Uruguay Government International Bond 5.750% 10/28/34	355,000	383,064
Uzbekistan — 1.4%		
Republic of Uzbekistan International Bond 3.900% 10/19/31 (a)	298,000	244,360
3.900% 10/19/31 (a)	450,000	369,000
5.375% 2/20/29 (a)	200,000	185,104
5.375% 2/20/29 (a)	400,000	370,208
		1,168,672
Venezuela — 0.2%		
Venezuela Government International Bond 7.750% 10/13/19 (a) (d)	1,000,000	72,500
9.250% 9/15/27 (d)	300,000	26,250
11.750% 10/21/26 (a) (d)	300,000	25,500
12.750% 8/23/22 (a) (d)	255,000	19,763
		144,013
Zambia — 0.5%		
Zambia Government International Bond 5.375% 9/20/22 (a) (d)	1,025,000	423,837
TOTAL SOVEREIGN DEBT OBLIGATIONS (Cost \$62,182,962)		51,872,214
TOTAL BONDS & NOTES (Cost \$93,569,425)		76,325,224
	Number of Shares	
MUTUAL FUNDS — 1.6%		
Diversified Financial Services — 1.6%		
United States — 1.6%		
State Street Navigator Securities Lending Government Money Market Portfolio (g)	1,320,090	1,320,090
TOTAL MUTUAL FUNDS (Cost \$1,320,090)		1,320,090
TOTAL LONG-TERM INVESTMENTS (Cost \$94,889,515)		77,645,314
SHORT-TERM INVESTMENTS — 5.3%		
Mutual Fund — 3.7%		
T. Rowe Price Government Reserve Investment Fund	3,042,999	3,042,999

MassMutual Select T. Rowe Price Emerging Markets Bond Fund — Portfolio of Investments
(Continued)

	Principal Amount	Value
Repurchase Agreement — 1.3%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (h)	\$ 1,019,104	\$ 1,019,104
U.S. Treasury Bill — 0.3%		
U.S. Treasury Bill		
1.962% 3/23/23 (i) (j)	30,000	29,721
2.491% 3/23/23 (i) (j)	20,000	19,814
2.698% 3/23/23 (i) (j)	210,000	208,045
		<u>257,580</u>
TOTAL SHORT-TERM INVESTMENTS (Cost \$4,320,616)		<u>4,319,683</u>
TOTAL INVESTMENTS — 100.3% (Cost \$99,210,131) (k)		81,964,997
Other Assets/(Liabilities) — (0.3)%		<u>(280,561)</u>
NET ASSETS — 100.0%		<u>\$ 81,684,436</u>

Abbreviation Legend

FRN	Floating Rate Note
STEP	Step Up Bond
VRN	Variable Rate Note

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$60,511,252 or 74.08% of net assets.
- (b) Security is perpetual and has no stated maturity date.
- (c) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$1,364,126 or 1.67% of net assets. The Fund received \$74,168 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).
- (d) Security is currently in default due to bankruptcy or failure to make payment of principal or interest of the issuer. Income is not being accrued. At December 31, 2022, these securities amounted to a value of \$1,147,162 or 1.40% of net assets.
- (e) The principal amount of the security is in foreign currency. The market value is in U.S. dollars.
- (f) Certain variable rate securities are not based on a published reference rate and spread but are determined by the issuer or agent and are based on current market conditions. These securities do not indicate a reference rate and spread in their description above. The rates shown are the current interest rates at December 31, 2022.
- (g) Represents investment of security lending cash collateral. (Note 2).
- (h) Maturity value of \$1,019,249. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,039,522.
- (i) The rate shown represents yield-to-maturity.
- (j) All or a portion of this security is pledged/held as collateral for open derivatives.
- (k) See Note 3 for aggregate cost for federal tax purposes.

Forward contracts

Counterparty	Settlement Date	Currency Purchased	Currency Sold	Unrealized Appreciation (Depreciation)
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BNP Paribas SA	1/19/23	USD	106,339	PEN	418,550	\$	(3,721)
BNP Paribas SA	2/24/23	USD	145,714	EUR	138,000		(2,516)
BNP Paribas SA	3/02/23	USD	234,062	BRL	1,270,265		(4,005)
Goldman Sachs International	1/13/23	USD	214,893	MXN	4,226,323		(1,645)
Goldman Sachs International	3/10/23	USD	48,446	COP	236,483,828		272
HSBC Bank USA	2/24/23	USD	1,763,862	EUR	1,694,086		(55,810)
Morgan Stanley & Co. LLC	1/19/23	USD	86,810	PEN	342,450		(3,239)
Morgan Stanley & Co. LLC	2/24/23	EUR	100,210	USD	107,078		561
Morgan Stanley & Co. LLC	2/24/23	USD	869,495	EUR	834,400		(26,761)
Morgan Stanley & Co. LLC	3/02/23	USD	124,289	BRL	683,989		(3,900)
UBS AG	2/24/23	EUR	116,937	USD	122,841		2,764
UBS AG	3/10/23	USD	41,372	COP	202,711,340		78
							<u>\$</u> (97,922)

Futures contracts

	Expiration Date	Number of Contracts	Notional Amount	Value/ Net Unrealized Appreciation/ (Depreciation)
Long				
U.S. Treasury Ultra Bond	3/22/23	17	\$ 2,380,708	<u>\$ (97,395)</u>
Short				
U.S. Treasury Note 10 Year	3/22/23	61	\$ (6,874,805)	<u>\$ 24,696</u>

Currency Legend

BRL	Brazilian Real
COP	Colombian Peso
EUR	Euro
MXN	Mexican Peso
PEN	Peruvian New Sol
USD	U.S. Dollar

MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 97.6%		
COMMON STOCK — 96.6%		
Basic Materials — 1.2%		
Chemicals — 1.2%		
Air Products & Chemicals, Inc.	1,579	\$ 486,742
CF Industries Holdings, Inc.	2,572	219,134
FMC Corp.	1,499	187,075
International Flavors & Fragrances, Inc.	39,862	4,179,132
Linde PLC	10,693	3,487,843
Nutrien Ltd.	122,028	8,911,705
PPG Industries, Inc.	600	75,444
RPM International, Inc.	2,407	234,562
The Sherwin-Williams Co.	26,105	6,195,500
		<u>23,977,137</u>
Forest Products & Paper — 0.0%		
International Paper Co.	3,468	120,097
West Fraser Timber Co. Ltd.	786	56,820
		<u>176,917</u>
Iron & Steel — 0.0%		
Steel Dynamics, Inc.	900	87,930
		<u>24,241,984</u>
Communications — 9.8%		
Advertising — 0.2%		
The Trade Desk, Inc. Class A (a)	72,621	3,255,600
Internet — 8.6%		
Alphabet, Inc. Class A (a)	359,278	31,699,098
Alphabet, Inc. Class C (a)	543,989	48,268,144
Amazon.com, Inc. (a)	565,725	47,520,900
Booking Holdings, Inc. (a)	4,060	8,182,037
Coupang, Inc. (a)	219,184	3,224,196
Expedia Group, Inc. (a)	37,348	3,271,685
Gen Digital, Inc.	7,000	150,010
Match Group, Inc. (a)	74,212	3,079,056
Meta Platforms, Inc. Class A (a)	34,161	4,110,935
Netflix, Inc. (a)	33,838	9,978,149
Pinterest, Inc. Class A (a)	128,648	3,123,573
Sea Ltd. ADR (a)	53,158	2,765,811
Spotify Technology SA (a)	49,724	3,925,710
		<u>169,299,304</u>

***MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Media — 0.4%		
Comcast Corp. Class A	7,005	\$ 244,965
The Walt Disney Co. (a)	79,763	6,929,809
		<u>7,174,774</u>
Telecommunications — 0.6%		
Arista Networks, Inc. (a)	2,900	351,915
Cisco Systems, Inc.	6,161	293,510
T-Mobile US, Inc. (a)	10,929	1,530,060
Verizon Communications, Inc.	244,167	9,620,180
		<u>11,795,665</u>
		<u>191,525,343</u>
Consumer, Cyclical — 8.5%		
Airlines — 0.0%		
Southwest Airlines Co. (a)	6,619	222,862
United Airlines Holdings, Inc. (a)	3,699	139,452
		<u>362,314</u>
Apparel — 0.1%		
NIKE, Inc. Class B	9,579	1,120,839
Auto Manufacturers — 1.5%		
Cummins, Inc.	22,327	5,409,609
Ferrari NV	45,935	9,840,196
PACCAR, Inc.	3,428	339,269
Rivian Automotive, Inc. Class A (a)	686,189	12,646,463
Tesla, Inc. (a)	9,423	1,160,725
		<u>29,396,262</u>
Auto Parts & Equipment — 0.0%		
Aptiv PLC (a)	546	50,849
Magna International, Inc. (b)	3,080	173,034
		<u>223,883</u>
Home Builders — 0.0%		
NVR, Inc. (a)	57	262,917
Leisure Time — 0.1%		
Peloton Interactive, Inc. Class A (a)	208,710	1,657,158
Lodging — 0.7%		
Hilton Worldwide Holdings, Inc.	2,942	371,751
Las Vegas Sands Corp. (a)	173,637	8,346,731
Marriott International, Inc. Class A	2,757	410,490
MGM Resorts International	6,657	223,209
Wynn Resorts Ltd. (a)	65,391	5,392,796
		<u>14,744,977</u>
Retail — 6.1%		
AutoZone, Inc. (a)	184	453,777
Burlington Stores, Inc. (a)	1,755	355,844
Chipotle Mexican Grill, Inc. (a)	4,341	6,023,094

***MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Costco Wholesale Corp.	7,539	\$ 3,441,553
Dollar General Corp.	43,743	10,771,714
Dollar Tree, Inc. (a)	1,631	230,689
Floor & Decor Holdings, Inc. Class A (a)	35,930	2,501,806
The Home Depot, Inc.	39,704	12,540,905
Lowe's Cos., Inc.	2,088	416,013
Lululemon Athletica, Inc. (a)	6,105	1,955,920
McDonald's Corp.	71,198	18,762,809
O'Reilly Automotive, Inc. (a)	4,862	4,103,674
Ross Stores, Inc.	194,893	22,621,230
Starbucks Corp.	7,174	711,661
The TJX Cos., Inc.	55,246	4,397,582
Ulta Beauty, Inc. (a)	15,976	7,493,862
Walmart, Inc.	129,740	18,395,835
Yum! Brands, Inc.	28,968	3,710,221
		<u>118,888,189</u>
		<u>166,656,539</u>
Consumer, Non-cyclical — 24.0%		
Agriculture — 1.2%		
Altria Group, Inc.	9,555	436,759
Darling Ingredients, Inc. (a)	1,754	109,783
Philip Morris International, Inc.	217,805	22,044,044
		<u>22,590,586</u>
Beverages — 1.1%		
The Coca-Cola Co.	109,515	6,966,249
Constellation Brands, Inc. Class A	16,844	3,903,597
Keurig Dr Pepper, Inc.	228,643	8,153,410
Monster Beverage Corp. (a)	6,127	622,074
PepsiCo, Inc.	6,523	1,178,445
		<u>20,823,775</u>
Biotechnology — 0.9%		
Amgen, Inc.	20,384	5,353,654
Argenx SE ADR (a)	12,498	4,734,617
Biogen, Inc. (a)	1,121	310,427
Corteva, Inc.	1,680	98,750
Gilead Sciences, Inc.	2,200	188,870
Illumina, Inc. (a)	7,230	1,461,906
Moderna, Inc. (a)	2,806	504,014
Regeneron Pharmaceuticals, Inc. (a)	3,926	2,832,570
Vertex Pharmaceuticals, Inc. (a)	9,150	2,642,337
		<u>18,127,145</u>
Commercial Services — 1.0%		
Adyen NV (a) (c)	660	913,319
Booz Allen Hamilton Holding Corp.	24,649	2,576,313
Bright Horizons Family Solutions, Inc. (a)	2,800	176,680
Cintas Corp.	4,937	2,229,648
CoStar Group, Inc. (a)	2,300	177,744
FleetCor Technologies, Inc. (a)	4,100	753,088
Global Payments, Inc.	31,455	3,124,111
S&P Global, Inc.	2,400	803,856

**MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)**

	Number of Shares	Value
TransUnion	84,227	\$ 4,779,882
United Rentals, Inc. (a)	883	313,836
Verisk Analytics, Inc.	23,671	4,176,038
WillScot Mobile Mini Holdings Corp. (a)	6,100	275,537
		<u>20,300,052</u>
Cosmetics & Personal Care — 1.3%		
Colgate-Palmolive Co.	1,300	102,427
The Estee Lauder Cos., Inc. Class A	19,291	4,786,290
The Procter & Gamble Co.	138,399	20,975,752
		<u>25,864,469</u>
Food — 1.9%		
Conagra Brands, Inc.	8,696	336,535
General Mills, Inc.	32,032	2,685,883
The Hershey Co.	12,122	2,807,092
The Kraft Heinz Co.	241,443	9,829,145
Mondelez International, Inc. Class A	281,023	18,730,183
Sysco Corp.	23,754	1,815,993
		<u>36,204,831</u>
Health Care – Products — 3.4%		
Abbott Laboratories	5,601	614,934
Align Technology, Inc. (a)	9,103	1,919,823
Avantor, Inc. (a)	144,814	3,054,127
Boston Scientific Corp. (a)	1,500	69,405
Danaher Corp.	45,883	12,178,266
GE HealthCare Technologies, Inc. (a)	15,837	924,564
Insulet Corp. (a)	10,047	2,957,736
Intuitive Surgical, Inc. (a)	46,661	12,381,496
Medtronic PLC	1,999	155,362
PerkinElmer, Inc.	28,668	4,019,827
ResMed, Inc.	5,619	1,169,483
Steris PLC	17,229	3,182,024
Stryker Corp.	23,045	5,634,272
Thermo Fisher Scientific, Inc.	30,567	16,832,941
West Pharmaceutical Services, Inc.	306	72,017
Zimmer Biomet Holdings, Inc.	4,700	599,250
		<u>65,765,527</u>
Health Care – Services — 6.1%		
Centene Corp. (a)	155,971	12,791,182
Charles River Laboratories International, Inc. (a)	400	87,160
Elevance Health, Inc.	71,947	36,906,653
HCA Healthcare, Inc.	60,302	14,470,068
Humana, Inc.	26,852	13,753,326
Molina Healthcare, Inc. (a)	1,067	352,345
Quest Diagnostics, Inc.	13,464	2,106,308
UnitedHealth Group, Inc.	73,686	39,066,843
		<u>119,533,885</u>
Household Products & Wares — 0.2%		
Avery Dennison Corp.	1,794	324,714

MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Kimberly-Clark Corp.	26,681	\$ 3,621,946
		<u>3,946,660</u>
Pharmaceuticals — 6.9%		
AbbVie, Inc.	76,668	12,390,315
AmerisourceBergen Corp.	46,190	7,654,145
AstraZeneca PLC Sponsored ADR	214,047	14,512,386
Becton Dickinson and Co.	97,527	24,801,116
Bristol-Myers Squibb Co.	6,261	450,479
Cigna Corp.	31,982	10,596,916
CVS Health Corp.	27,759	2,586,861
DexCom, Inc. (a)	4,324	489,650
Eli Lilly & Co.	51,570	18,866,369
Johnson & Johnson	169,818	29,998,350
McKesson Corp.	892	334,607
Merck & Co., Inc.	99,057	10,990,374
Novo Nordisk A/S Sponsored ADR	600	81,204
Pfizer, Inc.	20,178	1,033,921
Viatis, Inc.	36,200	402,906
Zoetis, Inc.	3,498	512,632
		<u>135,702,231</u>
		<u>468,859,161</u>
Energy — 3.0%		
Energy – Alternate Sources — 0.0%		
Enphase Energy, Inc. (a)	700	185,472
First Solar, Inc. (a)	300	44,937
		<u>230,409</u>
Oil & Gas — 2.5%		
Chevron Corp.	90,009	16,155,715
ConocoPhillips	27,061	3,193,198
EOG Resources, Inc.	4,802	621,955
Exxon Mobil Corp.	248,301	27,387,600
Hess Corp.	3,100	439,642
Marathon Petroleum Corp.	4,468	520,031
Pioneer Natural Resources Co.	1,173	267,902
TotalEnergies SE Sponsored ADR	7,388	458,647
		<u>49,044,690</u>
Oil & Gas Services — 0.1%		
Halliburton Co.	18,851	741,787
Pipelines — 0.4%		
Kinder Morgan, Inc.	462,674	8,365,146
		<u>58,382,032</u>
Financial — 15.3%		
Banks — 5.0%		
Bank of America Corp.	888,352	29,422,218
The Bank of New York Mellon Corp.	2,422	110,249
Citigroup, Inc.	90,881	4,110,548
Citizens Financial Group, Inc.	2,275	89,567

MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Fifth Third Bancorp	13,986	\$ 458,881
The Goldman Sachs Group, Inc.	24,320	8,351,001
Huntington Bancshares, Inc.	46,327	653,211
JP Morgan Chase & Co.	206,128	27,641,765
Morgan Stanley	3,989	339,145
Signature Bank	1,620	186,656
SVB Financial Group (a)	742	170,764
US Bancorp	244,815	10,676,382
Wells Fargo & Co.	385,041	15,898,343
		<u>98,108,730</u>
Diversified Financial Services — 3.1%		
American Express Co.	3,600	531,900
Ameriprise Financial, Inc.	800	249,096
Apollo Global Management, Inc.	3,116	198,770
BlackRock, Inc.	460	325,970
Blue Owl Capital, Inc. (b)	7,112	75,387
Capital One Financial Corp.	900	83,664
The Charles Schwab Corp.	37,207	3,097,855
CME Group, Inc.	1,927	324,044
Intercontinental Exchange, Inc.	4,775	489,867
Maplebear, Inc., (Non-Voting) (Acquired 8/07/20, Cost \$14,781) (a) (d) (e) (f)	319	15,465
Maplebear, Inc., (Voting) (Acquired 8/07/20, Cost \$282,637) (a) (d) (e) (f)	6,100	295,728
Mastercard, Inc. Class A	65,472	22,766,578
Visa, Inc. Class A	148,910	30,937,542
		<u>59,391,866</u>
Insurance — 6.2%		
The Allstate Corp.	68,121	9,237,208
American International Group, Inc.	101,727	6,433,215
Assurant, Inc.	2,021	252,746
Berkshire Hathaway, Inc. Class B (a)	61,246	18,918,889
Chubb Ltd.	93,675	20,664,705
Corebridge Financial, Inc.	135,644	2,721,019
Equitable Holdings, Inc.	14,025	402,518
The Hartford Financial Services Group, Inc.	125,550	9,520,457
Marsh & McLennan Cos., Inc.	2,821	466,819
MetLife, Inc.	202,526	14,656,807
The Progressive Corp.	139,527	18,098,047
RenaissanceRe Holdings Ltd.	2,463	453,758
The Travelers Cos., Inc.	101,684	19,064,733
Voya Financial, Inc.	1,064	65,425
		<u>120,956,346</u>
Private Equity — 0.0%		
Ares Management Corp. Class A	1,294	88,561
Real Estate Investment Trusts (REITS) — 1.0%		
Alexandria Real Estate Equities, Inc.	947	137,950
American Homes 4 Rent Class A	1,700	51,238
American Tower Corp.	1,041	220,546
AvalonBay Communities, Inc.	873	141,007
Boston Properties, Inc.	13,123	886,852
Camden Property Trust	491	54,933
Equinix, Inc.	906	593,457

***MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Equity LifeStyle Properties, Inc.	30,009	\$ 1,938,581
Essex Property Trust, Inc.	697	147,708
Extra Space Storage, Inc.	1,237	182,062
Prologis, Inc.	85,801	9,672,347
Public Storage	854	239,282
Rexford Industrial Realty, Inc.	3,632	198,453
SBA Communications Corp.	3,344	937,357
Simon Property Group, Inc.	1,765	207,352
Sun Communities, Inc.	196	28,028
Welltower, Inc.	4,199	275,245
Weyerhaeuser Co.	141,915	4,399,365
		<u>20,311,763</u>
		<u>298,857,266</u>
Industrial — 8.1%		
Aerospace & Defense — 1.4%		
Airbus SE	58,324	6,934,856
The Boeing Co. (a)	2,383	453,938
L3 Harris Technologies, Inc.	75,853	15,793,353
Northrop Grumman Corp.	7,696	4,199,014
Raytheon Technologies Corp.	926	93,452
TransDigm Group, Inc.	593	373,382
		<u>27,847,995</u>
Building Materials — 0.0%		
Carrier Global Corp.	2,800	115,500
Vulcan Materials Co.	1,328	232,546
		<u>348,046</u>
Commercial Services — 0.0%		
Ant International Co. Ltd., Class C (Acquired 6/07/18, Cost \$1,171,890) (a) (d) (e) (f)	307,471	624,166
Electrical Components & Equipment — 0.4%		
AMETEK, Inc.	37,357	5,219,520
Emerson Electric Co.	20,634	1,982,102
		<u>7,201,622</u>
Electronics — 1.2%		
Agilent Technologies, Inc.	14,985	2,242,505
Amphenol Corp. Class A	97	7,386
Honeywell International, Inc.	42,403	9,086,963
Hubbell, Inc.	18,262	4,285,726
Mettler-Toledo International, Inc. (a)	1,821	2,632,165
TE Connectivity Ltd.	36,203	4,156,104
Trimble, Inc. (a)	4,100	207,296
		<u>22,618,145</u>
Environmental Controls — 0.3%		
Republic Services, Inc.	44,041	5,680,848
Waste Connections, Inc.	3,528	467,672
		<u>6,148,520</u>

**MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)**

	Number of Shares	Value
Hand & Machine Tools — 0.0%		
Stanley Black & Decker, Inc.	4,600	\$ 345,552
Machinery – Diversified — 0.3%		
Dover Corp.	21,808	2,953,021
IDEX Corp.	6,838	1,561,321
Ingersoll Rand, Inc.	9,708	507,243
Otis Worldwide Corp.	3,630	284,265
Rockwell Automation, Inc.	1,200	309,084
		<u>5,614,934</u>
Miscellaneous - Manufacturing — 2.6%		
Eaton Corp. PLC	101,406	15,915,672
General Electric Co.	193,950	16,251,071
Siemens AG Registered	33,767	4,686,611
Teledyne Technologies, Inc. (a)	29,995	11,995,300
Textron, Inc.	3,748	265,358
Trane Technologies PLC	3,098	520,743
		<u>49,634,755</u>
Packaging & Containers — 0.0%		
Ball Corp.	3,480	177,967
Packaging Corp. of America	1,673	213,994
Sealed Air Corp.	5,691	283,867
WestRock Co.	2,187	76,895
		<u>752,723</u>
Transportation — 1.9%		
Canadian Pacific Railway Ltd. (b)	5,180	386,376
CSX Corp.	442,006	13,693,346
FedEx Corp.	24,730	4,283,236
J.B. Hunt Transport Services, Inc.	1,858	323,961
Norfolk Southern Corp.	27,799	6,850,230
Old Dominion Freight Line, Inc.	20,815	5,906,881
Saia, Inc. (a)	1,006	210,938
Union Pacific Corp.	22,179	4,592,605
United Parcel Service, Inc. Class B	969	168,451
		<u>36,416,024</u>
		<u>157,552,482</u>
Technology — 23.0%		
Auto Parts & Equipment — 0.0%		
Mobileye Global, Inc. Class A (a)	12,941	453,712
Commercial Services — 0.0%		
Celonis SE (Acquired 6/17/21, Cost \$435,243) (a) (d) (e) (f)	1,177	435,243
Computers — 4.7%		
Accenture PLC Class A	35,440	9,456,809
Apple, Inc.	622,901	80,933,527
Cognizant Technology Solutions Corp. Class A	1,657	94,764
Fortinet, Inc. (a)	6,725	328,785
Pure Storage, Inc. Class A (a)	4,005	107,174

MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Western Digital Corp. (a)	4,700	\$ 148,285
		<u>91,069,344</u>
Semiconductors — 6.4%		
Advanced Micro Devices, Inc. (a)	168,193	10,893,861
Analog Devices, Inc.	14,996	2,459,794
Applied Materials, Inc.	82,538	8,037,550
ASML Holding NV	35,108	19,183,011
Broadcom, Inc.	29,430	16,455,196
KLA Corp.	47,824	18,031,083
Lam Research Corp.	23,269	9,779,961
Marvell Technology, Inc.	6,500	240,760
Micron Technology, Inc.	139,339	6,964,163
Monolithic Power Systems, Inc.	700	247,527
NVIDIA Corp.	150,224	21,953,735
QUALCOMM, Inc.	4,728	519,796
Texas Instruments, Inc.	62,394	10,308,737
		<u>125,075,174</u>
Software — 11.9%		
Activision Blizzard, Inc.	56,605	4,333,113
Adobe, Inc. (a)	2,000	673,060
Atlassian Corp. (a)	33,966	4,370,745
Black Knight, Inc. (a)	37,975	2,344,956
Broadridge Financial Solutions, Inc.	18,042	2,419,973
Cadence Design Systems, Inc. (a)	2,645	424,893
Canva, Inc. (Acquired 12/17/21-12/22/21, Cost \$872,531) (a) (d) (e) (f)	512	282,522
Ceridian HCM Holding, Inc. (a)	49,293	3,162,146
The Descartes Systems Group, Inc. (a)	1,800	125,370
Electronic Arts, Inc.	17,254	2,108,094
Epic Games, Inc. (Acquired 6/18/20-3/29/21, Cost \$2,419,150) (a) (d) (e) (f)	3,660	2,517,458
Fidelity National Information Services, Inc.	38,622	2,620,503
Fiserv, Inc. (a)	263,502	26,632,147
HashiCorp, Inc. Class A (a) (b)	8,525	233,073
Intuit, Inc.	54,036	21,031,892
Microsoft Corp.	501,037	120,158,693
MongoDB, Inc. (a)	9,264	1,823,526
MSCI, Inc.	639	297,244
Roper Technologies, Inc.	23,331	10,081,092
Salesforce, Inc. (a)	80,164	10,628,945
SentinelOne Inc. Class A (a)	114,058	1,664,106
ServiceNow, Inc. (a)	34,366	13,343,287
Stripe, Inc., Class B (Acquired 12/17/19, Cost \$295,694) (a) (d) (e) (f)	18,846	348,839
Synopsys, Inc. (a)	1,850	590,686
Veeva Systems, Inc. Class A (a)	481	77,624
Workday, Inc. Class A (a)	619	103,577
Zoom Video Communications, Inc. Class A (a)	1,270	86,030
		<u>232,483,594</u>
		<u>449,517,067</u>
Utilities — 3.7%		
Electric — 3.7%		
Ameren Corp.	93,716	8,333,227
American Electric Power Co., Inc.	58,984	5,600,531
CMS Energy Corp.	2,989	189,293

***MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Dominion Energy, Inc.	63,321	\$ 3,882,844
DTE Energy Co.	29,405	3,455,970
Exelon Corp.	11,500	497,145
FirstEnergy Corp.	118,607	4,974,378
NextEra Energy, Inc.	11,892	994,171
PG&E Corp. (a)	40,847	664,172
Sempra Energy	53,730	8,303,434
The Southern Co.	434,101	30,999,152
WEC Energy Group, Inc.	22,491	2,108,756
Xcel Energy, Inc.	34,374	2,409,961
		<u>72,413,034</u>
		<u>72,413,034</u>
TOTAL COMMON STOCK (Cost \$1,936,525,447)		<u>1,888,004,908</u>
PREFERRED STOCK — 1.0%		
Consumer, Cyclical — 0.5%		
Auto Manufacturers — 0.5%		
Dr Ing hc F Porsche AG (a)	68,744	6,974,507
Nuro, Inc., Series C (Acquired 10/30/20-3/02/21, Cost \$1,236,023)		
(a) (d) (e) (f)	94,681	1,314,172
Nuro, Inc., Series D (Acquired 10/29/21, Cost \$487,977)		
(a) (d) (e) (f)	23,409	324,917
Waymo LLC, Series A-2 (Acquired 5/08/20, Cost \$748,934)		
(a) (d) (e) (f)	8,722	411,504
		<u>9,025,100</u>
Consumer, Non-cyclical — 0.1%		
Commercial Services — 0.1%		
Redwood Materials, Inc., Series C (Acquired 5/28/21, Cost \$1,059,705)		
(a) (d) (e) (f)	22,355	1,743,690
Financial — 0.0%		
Investment Companies — 0.0%		
Maplebear, Inc., Series A (Acquired 11/18/20, Cost \$53,081)		
(a) (d) (e) (f)	870	42,178
Maplebear, Inc., Series G (Acquired 7/02/20, Cost \$599,129)		
(a) (d) (e) (f)	12,458	603,964
Maplebear, Inc., Series I (Acquired 2/26/21, Cost \$240,750)		
(a) (d) (e) (f)	1,926	93,372
		<u>739,514</u>
		<u>739,514</u>

**MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)**

	Number of Shares	Value
Industrial — 0.3%		
Electrical Components & Equipment — 0.1%		
Sila Nanotechnologies, Inc., Series F (Acquired 1/07/21, Cost \$760,988) (a) (d) (e) (f)	18,438	\$ 574,712
Electronics — 0.2%		
GM Cruise Holdings, LLC, Class F (Acquired 5/07/19, Cost \$921,625) (a) (d) (e) (f)	50,500	1,026,665
GM Cruise Holdings, LLC, Class G (Acquired 1/21/21, Cost \$979,851) (a) (d) (e) (f)	37,186	755,991
Sartorius AG 0.0340%	5,818	2,300,759
		<u>4,083,415</u>
		<u>4,658,127</u>
Technology — 0.1%		
Software — 0.1%		
Canva, Inc., Series A (Acquired 12/17/21, Cost \$49,421) (a) (d) (e) (f)	29	16,002
Canva, Inc., Series A-3 (Acquired 12/17/21, Cost \$13,633) (a) (d) (e) (f)	8	4,414
Celonis SE, Series D (Acquired 6/17/21-10/04/22, Cost \$1,306,468) (a) (d) (e) (f)	3,533	1,306,468
Formagrid, Inc., Series F (Acquired 12/08/21, Cost \$1,130,824) (a) (d) (e) (f)	6,038	635,258
Rappi, Inc., Series E (Acquired 9/08/20-9/24/20, Cost \$1,092,516) (a) (d) (e) (f)	18,286	658,479
		<u>2,620,621</u>
TOTAL PREFERRED STOCK (Cost \$18,264,730)		<u>18,787,052</u>
TOTAL EQUITIES (Cost \$1,954,790,177)		<u>1,906,791,960</u>
	Principal Amount	
BONDS & NOTES — 0.0%		
CORPORATE DEBT — 0.0%		
Commercial Services — 0.0%		
Redwood Materials, Inc., Promissory Note (Acquired 6/17/22, Cost \$50,373), 0.000% 9/24/23 (d) (e) (f)	\$ 50,373	<u>50,373</u>
TOTAL CORPORATE DEBT (Cost \$50,373)		<u>50,373</u>
TOTAL BONDS & NOTES (Cost \$50,373)		<u>50,373</u>

**MassMutual Select T. Rowe Price Large Cap Blend Fund — Portfolio of Investments
(Continued)**

	Number of Shares	Value
MUTUAL FUNDS — 0.0%		
Diversified Financial Services — 0.0%		
State Street Navigator Securities Lending Government Money Market Portfolio (g)	697,218	\$ 697,218
TOTAL MUTUAL FUNDS (Cost \$697,218)		697,218
TOTAL LONG-TERM INVESTMENTS (Cost \$1,955,537,768)		1,907,539,551
SHORT-TERM INVESTMENTS — 2.7%		
Mutual Fund — 2.6%		
T. Rowe Price Government Reserve Investment Fund	50,287,049	50,287,049
	Principal Amount	
Repurchase Agreement — 0.1%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (h)	\$ 997,996	997,996
TOTAL SHORT-TERM INVESTMENTS (Cost \$51,285,045)		51,285,045
TOTAL INVESTMENTS — 100.3% (Cost \$2,006,822,813) (i)		1,958,824,596
Other Assets/(Liabilities) — (0.3)%		(4,916,261)
NET ASSETS — 100.0%		\$ 1,953,908,335

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Non-income producing security.
- (b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$862,538 or 0.04% of net assets. The Fund received \$186,682 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).
- (c) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$913,319 or 0.05% of net assets.
- (d) Restricted security. Certain securities are restricted as to resale. At December 31, 2022, these securities amounted to a value of \$14,081,580 or 0.72% of net assets. The Fund generally bears the costs, if any, associated with the disposition of restricted securities.
- (e) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$14,081,580 or 0.72% of net assets.
- (f) Investment is valued using significant unobservable inputs.
- (g) Represents investment of security lending cash collateral. (Note 2).
- (h) Maturity value of \$998,138. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,018,026.
- (i) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund — Portfolio of Investments

December 31, 2022 (Unaudited)

	Principal Amount	Value
BONDS & NOTES — 99.7%		
CORPORATE DEBT — 0.3%		
Health Care – Services — 0.3%		
Health Care Service Corp. A Mutual Legal Reserve Co. 1.500% 6/01/25 (a)	\$ 545,000	\$ <u>501,034</u>
TOTAL CORPORATE DEBT (Cost \$504,316)		<u>501,034</u>
MUNICIPAL OBLIGATIONS — 0.4%		
California State University, Revenue Bond 0.563% 11/01/24	125,000	115,686
City & County of Denver Co. Airport System Revenue Revenue Bond, 0.877% 11/15/23	20,000	19,381
Revenue Bond, 1.115% 11/15/24	30,000	28,087
City of Atlanta GA Water & Wastewater Revenue Revenue Bond, 0.407% 11/01/23	15,000	14,496
Revenue Bond, 0.616% 11/01/24	15,000	13,916
Dallas Area Rapid Transit Revenue Bond, 0.541% 12/01/23	10,000	9,628
Revenue Bond, 0.761% 12/01/24	10,000	9,298
State of Illinois, General Obligation 2.840% 10/01/23	485,000	477,398
Tobacco Settlement Finance Authority Revenue Bond, 1.193% 6/01/23	50,000	49,183
Revenue Bond, 1.497% 6/01/24	65,000	<u>61,646</u>
		<u>798,719</u>
TOTAL MUNICIPAL OBLIGATIONS (Cost \$825,000)		<u>798,719</u>
NON-U.S. GOVERNMENT AGENCY OBLIGATIONS — 4.5%		
Automobile Asset-Backed Securities — 1.0%		
AmeriCredit Automobile Receivables Trust, Series 2020-3, Class C 1.060% 8/18/26	120,000	113,727
Capital One Prime Auto Receivables Trust, Series 2020-1, Class A4 1.630% 8/15/25	140,000	135,823
CarMax Auto Owner Trust, Series 2021-1, Class A3 0.340% 12/15/25	89,048	86,101
Enterprise Fleet Financing LLC 5.760% 10/22/29 (a)	345,000	346,147
Ford Credit Auto Owner Trust 5.270% 5/17/27	265,000	267,929
Mercedes-Benz Auto Receivables Trust 5.210% 8/16/27	370,000	372,915

MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
World Omni Auto Receivables Trust		
5.700% 2/15/29	\$ 425,000	\$ 425,027
		<u>1,747,669</u>
Other Asset-Backed Securities — 0.6%		
BRE Grand Islander Timeshare Issuer LLC, Series 2019-A, Class A		
3.280% 9/26/33 (a)	38,719	36,379
CNH Equipment Trust		
5.150% 4/17/28	265,000	263,993
Elara HGV Timeshare Issuer LLC, Series 2016-A, Class A		
2.730% 4/25/28 (a)	175,401	173,427
MVW Owner Trust, Series 2018-1A, Class A		
3.450% 1/21/36 (a)	55,274	53,033
Sierra Receivables Funding LLC, Series 2019-3A, Class A		
2.340% 8/20/36 (a)	36,032	34,858
Verizon Master Trust		
Series 2021-1, Class A, 0.500% 5/20/27	291,000	272,938
5.230% 11/22/27	335,000	337,223
		<u>1,171,851</u>
Student Loans Asset-Backed Securities — 0.5%		
Navient Private Education Refi Loan Trust		
Series 2021-EA, Class A, 0.970% 12/16/69 (a)	167,257	141,409
Series 2019-GA, Class A, 2.400% 10/15/68 (a)	111,589	102,116
Nelnet Student Loan Trust, Series 2021-CA, Class AFX		
1.320% 4/20/62 (a)	496,098	438,731
SMB Private Education Loan Trust		
Series 2016-B, Class A2A, 2.430% 2/17/32 (a)	84,284	79,754
Series 2017-B, Class A2A, 2.820% 10/15/35 (a)	177,178	170,254
Series 2017-A, Class A2A, 2.880% 9/15/34 (a)	55,068	53,164
		<u>985,428</u>
Whole Loan Collateral Collateralized Mortgage Obligations — 2.3%		
Bayview MSR Opportunity Master Fund Trust, Series 2021-2, Class A5,		
2.500% VRN 6/25/51 (a) (b)	344,255	296,328
COLT Mortgage Loan Trust, Series 2021-6, Class A1,		
1.907% VRN 12/25/66 (a) (b)	551,045	468,046
Credit Suisse Mortgage Trust, Series 2021-RPL6, Class A1,		
2.000% VRN 10/25/60 (a) (b)	290,066	249,120
Flagstar Mortgage Trust, Series 2021-5INV, Class A5,		
2.500% VRN 7/25/51 (a) (b)	363,230	312,208
Galton Funding Mortgage Trust, Series 2020-H1, Class A3,		
2.617% VRN 1/25/60 (a) (b)	153,972	136,360
GS Mortgage-Backed Securities Trust, Series 2022-GR1, Class A5,		
2.500% VRN 6/25/52 (a) (b)	701,995	599,876
JP Morgan Mortgage Trust, Series 2019-INV2, Class A3,		
3.500% VRN 2/25/50 (a) (b)	19,039	16,841
Metlife Securitization Trust, Series 2018-1A, Class A,		
3.750% VRN 3/25/57 (a) (b)	86,449	80,261
NYMT Loan Trust, Series 2022-CP1, Class A1		
2.042% 7/25/61 (a)	297,952	262,538
Onslow Bay Financial LLC		
Series 2022-NQM1, Class A1, 2.305% VRN 11/25/61 (a) (b)	267,013	228,394
Series 2019-EXP1, Class 1A3, 4.000% VRN 1/25/59 (a) (b)	36,429	34,679
Series 2019-EXP2, Class 1A3, 4.000% VRN 6/25/59 (a) (b)	73,514	66,428

MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2020-EXP1, Class 2A1, 1 mo. USD LIBOR + .750% 5.139% FRN 2/25/60 (a)	\$ 19,282	\$ 17,515
Series 2019-EXP3, Class 2A1, 1 mo. USD LIBOR + .900% 5.289% FRN 10/25/59 (a)	32,231	30,038
Sequoia Mortgage Trust		
Series 2017-CH1, Class A2, 3.500% VRN 8/25/47 (a) (b)	14,719	13,435
Series 2017-CH1, Class A13, 4.000% VRN 8/25/47 (a) (b)	40,020	37,156
Series 2018-CH2, Class A3, 4.000% VRN 6/25/48 (a) (b)	8,134	7,395
Series 2018-CH3, Class A2, 4.000% VRN 8/25/48 (a) (b)	2,756	2,678
Series 2018-CH4, Class A2, 4.000% VRN 10/25/48 (a) (b)	1,093	1,079
SG Residential Mortgage Trust, Series 2021-1, Class A1, 1.160% VRN 7/25/61 (a) (b)	395,946	310,886
Starwood Mortgage Residential Trust, Series 2021-3, Class A1, 1.127% VRN 6/25/56 (a) (b)	352,659	287,514
Towd Point Mortgage Trust		
Series 2017-6, Class A1, 2.750% VRN 10/25/57 (a) (b)	68,085	64,033
Series 2018-2, Class A1, 3.250% VRN 3/25/58 (a) (b)	79,212	75,061
Series 2018-5, Class A1A, 3.250% VRN 7/25/58 (a) (b)	53,459	49,994
Series 2018-3, Class A1, 3.750% VRN 5/25/58 (a) (b)	44,967	42,286
Verus Securitization Trust		
Series 2021-3, Class A1, 1.046% VRN 6/25/66 (a) (b)	337,000	277,810
Series 2020-1, Class A1, 2.417% STEP 1/25/60 (a)	52,358	49,194
Wells Fargo Mortgage Backed Securities Trust, Series 2021-RR1, Class A3, 2.500% VRN 12/25/50 (a) (b)	284,545	244,931
		<u>4,262,084</u>
Whole Loan Collateral Support Collateralized Mortgage Obligations — 0.1%		
Galton Funding Mortgage Trust, Series 2018-1, Class A33, 3.500% VRN 11/25/57 (a) (b)	54,445	47,952
Onslow Bay Financial LLC		
Series 2020-INV1, Class A21, 3.500% VRN 12/25/49 (a) (b)	30,870	26,219
Series 2020-EXP1, Class 1A9, 3.500% VRN 2/25/60 (a) (b)	60,540	52,342
Series 2019-EXP3, Class 2A2, 1 mo. USD LIBOR + 1.100% 5.489% FRN 10/25/59 (a)	18,099	16,990
		<u>143,503</u>
TOTAL NON-U.S. GOVERNMENT AGENCY OBLIGATIONS (Cost \$9,185,228)		<u>8,310,535</u>
U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (c) — 1.1%		
Collateralized Mortgage Obligations — 0.0%		
Government National Mortgage Association		
Series 2019-65, Class B 3.500% 5/20/49	52,940	49,868
Whole Loans — 1.1%		
Federal Home Loan Mortgage Corp. Structured Agency Credit Risk Debt Notes		
Series 2022-DNA1, Class M1A, 30 day SOFR + 1.000% 4.928% FRN 1/25/42 (a)	572,021	558,347
Series 2022-DNA2, Class M1A, 30 day SOFR + 1.300% 5.228% FRN 2/25/42 (a)	218,020	215,614
Series 2022-DNA3, Class M1A, 30 day SOFR + 2.000% 5.928% FRN 4/25/42 (a)	455,530	454,521
Series 2022-DNA5, Class M1A, 30 day SOFR + 2.950% 6.878% FRN 6/25/42 (a)	93,107	94,131
Federal National Mortgage Association Connecticut Avenue Securities Trust		

MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
Series 2022-R01, Class 1M1, 30 day SOFR + 1.000% 4.928% FRN 12/25/41 (a)	\$ 308,788	\$ 304,654
Series 2018-C03, Class 1EB2, 1 mo. USD LIBOR + .850% 5.239% FRN 10/25/30	233,647	232,172
Series 2018-C03, Class 1ED2, 1 mo. USD LIBOR + .850% 5.239% FRN 10/25/30	13,178	13,128
Series 2017-C05, Class 1ED3, 1 mo. USD LIBOR + 1.200% 5.589% FRN 1/25/30	10,404	10,403
Series 2017-C06, Class 1M2B, 1 mo. USD LIBOR + 2.650% 7.039% FRN 2/25/30	137,931	138,786
		<u>2,021,756</u>

**TOTAL U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES
(Cost \$2,092,435)**

2,071,624

U.S. TREASURY OBLIGATIONS — 93.4%

U.S. Treasury Bonds & Notes — 93.4%

U.S. Treasury Inflation Index

0.125% 10/15/24	12,021,432	11,583,463
0.125% 4/15/25	20,348,520	19,405,811
0.125% 10/15/25	12,026,514	11,438,577
0.125% 4/15/26	2,701,249	2,541,777
0.125% 7/15/26	1,634,925	1,542,003
0.125% 10/15/26	12,295,260	11,535,772
0.125% 4/15/27	18,791,351	17,529,908
0.250% 1/15/25	9,396,124	9,018,811
0.375% 7/15/25	12,823,941	12,325,260
0.375% 1/15/27	11,301,693	10,667,886
0.375% 7/15/27	5,098,156	4,809,742
0.500% 4/15/24 (d)	17,946,614	17,459,742
0.625% 1/15/26	6,303,934	6,056,209
0.625% 7/15/32	2,222,162	2,037,560
1.625% 10/15/27	18,256,700	18,254,561

U.S. Treasury Notes

4.500% 11/30/24 (e)	17,540,000	17,550,571
		<u>173,757,653</u>

**TOTAL U.S. TREASURY OBLIGATIONS
(Cost \$182,276,828)**

173,757,653

TOTAL BONDS & NOTES

(Cost \$194,883,807)

185,439,565

	Number of Shares	
MUTUAL FUNDS — 9.6%		
Diversified Financial Services — 9.6%		
State Street Navigator Securities Lending Government Money Market Portfolio (f)	17,976,450	17,976,450
TOTAL MUTUAL FUNDS (Cost \$17,976,450)		<u>17,976,450</u>

**TOTAL LONG-TERM INVESTMENTS
(Cost \$212,860,257)**

203,416,015

MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
SHORT-TERM INVESTMENTS — 0.4%		
Mutual Fund — 0.0%		
T. Rowe Price Government Reserve Investment Fund	9,008	\$ 9,008
Repurchase Agreement — 0.4%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (g)	\$ 690,381	690,381
TOTAL SHORT-TERM INVESTMENTS (Cost \$699,389)		699,389
TOTAL INVESTMENTS — 109.7% (Cost \$213,559,646) (h)		204,115,404
Other Assets/(Liabilities) — (9.7)%		(18,111,253)
NET ASSETS — 100.0%		\$ 186,004,151

Abbreviation Legend

FRN	Floating Rate Note
STEP	Step Up Bond
VRN	Variable Rate Note

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$8,163,160 or 4.39% of net assets.
- (b) Certain variable rate securities are not based on a published reference rate and spread but are determined by the issuer or agent and are based on current market conditions. These securities do not indicate a reference rate and spread in their description above. The rates shown are the current interest rates at December 31, 2022.
- (c) May contain securities that are issued by a U.S. Government Agency, but are unsecured and are not guaranteed by a U.S. Government Agency.
- (d) All or a portion of this security is pledged/held as collateral for open derivatives.
- (e) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$17,622,679 or 9.47% of net assets. (Note 2).
- (f) Represents investment of security lending cash collateral. (Note 2).
- (g) Maturity value of \$690,480. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$704,284.
- (h) See Note 3 for aggregate cost for federal tax purposes.

Futures contracts

	Expiration Date	Number of Contracts	Notional Amount	Value/ Net Unrealized Appreciation/ (Depreciation)
Long				
U.S. Treasury Note 2 Year	3/31/23	39	\$ 8,035,332	\$ (37,285)
Short				
U.S. Treasury Ultra 10 Year	3/22/23	50	\$ (6,040,259)	\$ 126,196

Centrally Cleared Interest Rate Swaps									
Paid by the Fund		Received by the Fund							
Rate/ Reference	Frequency	Rate/ Reference	Frequency	Termination Date	Notional Amount	Value	Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)	
Fixed 3.135%	Maturity	U.S. Consumer Price Index	Maturity	8/03/23	USD 4,650,000	\$ 267,598	\$ —	\$ 267,598	
Fixed 2.960%	Maturity	U.S. Consumer Price Index	Maturity	8/02/24	USD 1,376,000	79,455	—	79,455	
Fixed 2.952%	Maturity	U.S. Consumer Price Index	Maturity	8/03/24	USD 3,133,000	180,769	—	180,769	
Fixed 3.112%	Maturity	U.S. Consumer Price Index	Maturity	8/22/24	USD 1,370,000	(11,221)	—	(11,221)	
Fixed 3.129%	Maturity	U.S. Consumer Price Index	Maturity	8/22/24	USD 1,370,000	(11,653)	—	(11,653)	
Fixed 3.320%	Maturity	U.S. Consumer Price Index	Maturity	8/30/24	USD 1,370,000	(20,615)	—	(20,615)	
Fixed 2.962%	Maturity	U.S. Consumer Price Index	Maturity	9/15/25	USD 4,046,000	(50,525)	—	(50,525)	
Fixed 2.715%	Maturity	U.S. Consumer Price Index	Maturity	10/03/25	USD 1,383,000	(6,471)	—	(6,471)	
Fixed 2.739%	Maturity	U.S. Consumer Price Index	Maturity	10/03/25	USD 891,000	(4,774)	—	(4,774)	
Fixed 2.535%	Maturity	U.S. Consumer Price Index	Maturity	10/05/25	USD 891,000	461	—	461	
Fixed 2.560%	Maturity	U.S. Consumer Price Index	Maturity	10/05/25	USD 891,000	(166)	—	(166)	
Fixed 2.665%	Maturity	U.S. Consumer Price Index	Maturity	10/06/25	USD 906,000	(2,797)	—	(2,797)	
Fixed 2.685%	Maturity	U.S. Consumer Price Index	Maturity	10/11/25	USD 906,000	(3,036)	—	(3,036)	
						<u>\$ 417,025</u>	<u>\$ —</u>	<u>\$ 417,025</u>	

OTC Interest Rate Swaps

Paid by the Fund		Received by the Fund								Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
Rate/ Reference	Frequency	Rate/ Reference	Frequency	Counterparty	Termination Date	Notional Amount	Value				
Fixed 1.600%	Maturity	U.S. Consumer Price Index	Maturity	Bank of America N.A.	2/21/23	USD3,638,000	\$ 384,318	\$	—	\$	384,318
Fixed 1.593%	Maturity	U.S. Consumer Price Index	Maturity	Citibank N.A.	2/18/23	USD1,311,000	139,022		—		139,022
Fixed 1.596%	Maturity	U.S. Consumer Price Index	Maturity	Citibank N.A.	2/18/23	USD1,789,000	189,518		—		189,518
Fixed 1.592%	Maturity	U.S. Consumer Price Index	Maturity	Citibank N.A.	2/20/23	USD2,867,000	303,912		—		303,912
Fixed 1.487%	Maturity	U.S. Consumer Price Index	Maturity	Citibank N.A.	2/26/23	USD2,061,000	223,527		—		223,527
Fixed 1.605%	Maturity	U.S. Consumer Price Index	Maturity	Goldman Sachs International	2/21/23	USD2,993,000	315,719		—		315,719
Fixed 1.565%	Maturity	U.S. Consumer Price Index	Maturity	HSBC Bank USA	2/25/23	USD2,241,000	237,911		—		237,911
Fixed 2.290%	Maturity	U.S. Consumer Price Index	Maturity	UBS AG	6/05/23	USD1,700,000	139,004		—		139,004
							<u>\$1,932,931</u>	<u>\$</u>	<u>—</u>	<u>\$</u>	<u>1,932,931</u>

Currency Legend
USD U.S. Dollar

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 91.3%		
COMMON STOCK — 90.3%		
Australia — 9.8%		
ALS Ltd.	175,484	\$ 1,459,405
BHP Group Ltd.	309,513	9,582,901
BlueScope Steel Ltd.	93,462	1,065,320
Capricorn Metals Ltd. (a)	20,746	63,232
Goodman Group	71,316	837,864
IGO Ltd.	86,004	781,636
Northern Star Resources Ltd.	347,671	2,545,870
OZ Minerals Ltd.	67,015	1,253,911
Perseus Mining Ltd.	1,282,216	1,799,543
Rio Tinto Ltd.	23,301	1,836,358
Scentre Group	281,941	548,222
South32 Ltd.	225,315	609,909
Tietto Minerals Ltd. (a)	1,633,642	783,321
		<u>23,167,492</u>
Belgium — 0.3%		
Warehouses De Pauw CVA	20,594	<u>588,878</u>
Bermuda — 0.3%		
Hongkong Land Holdings Ltd.	170,100	<u>780,099</u>
Brazil — 0.2%		
Vale SA	27,582	<u>468,472</u>
Canada — 7.2%		
Canadian Apartment Properties	14,198	447,541
Canadian National Railway Co.	6,270	744,806
Canadian Natural Resources Ltd.	15,674	870,405
Canadian Pacific Railway Ltd.	9,333	696,148
ERO Copper Corp. (a) (b)	21,559	296,794
Franco-Nevada Corp.	14,172	1,931,851
Granite REIT	8,121	414,327
K92 Mining, Inc. (a)	280,184	1,587,157
Karora Resources, Inc. (a)	291,722	1,001,852
Nutrien Ltd.	46,651	3,406,923
Orla Mining Ltd. (a)	119,037	481,775
Osisko Mining, Inc. (a)	124,665	322,251
Rhyolite Resources Ltd. (a)	214,075	23,716
StorageVault Canada, Inc. (b)	64,423	286,430
TC Energy Corp.	13,378	533,247
Toromont Industries Ltd.	18,291	1,319,951
Victoria Gold Corp. (a)	85,341	450,656
Wesdome Gold Mines Ltd. (a)	270,421	1,493,906
West Fraser Timber Co. Ltd. (b)	2,397	173,083
Wheaton Precious Metals Corp.	14,778	577,368
		<u>17,060,187</u>

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Cayman Islands — 0.5%		
H World Group Ltd.	71,800	\$ 309,018
Wharf Real Estate Investment Co. Ltd.	132,000	769,577
		<u>1,078,595</u>
Denmark — 0.4%		
Bakkafrost P/F	11,358	709,957
ROCKWOOL International A/S Class B	1,182	278,832
		<u>988,789</u>
Finland — 1.3%		
Kojamo OYJ	34,041	504,336
Metso Outotec OYJ	182,791	1,885,835
UPM-Kymmene OYJ	20,751	777,871
		<u>3,168,042</u>
France — 2.3%		
Gecina SA	2,431	247,681
Legrand SA	4,183	336,804
Schneider Electric SE	4,099	576,481
TotalEnergies SE (b)	59,876	3,737,170
Verallia SA (c)	14,375	487,024
		<u>5,385,160</u>
Hong Kong — 0.3%		
Sun Hung Kai Properties Ltd.	55,000	752,654
Ireland — 0.8%		
Linde PLC	6,084	1,984,479
Japan — 2.5%		
Hoshino Resorts REIT, Inc.	73	393,499
Industrial & Infrastructure Fund Investment Corp.	494	571,321
Invincible Investment Corp.	694	268,273
Katitas Co. Ltd.	19,200	441,583
Kyoritsu Maintenance Co. Ltd. (b)	8,300	372,018
Mitsui Fudosan Co. Ltd.	57,800	1,055,945
Mitsui Fudosan Logistics Park, Inc.	125	458,082
Nippon Steel Corp.	84,200	1,466,003
Shin-Etsu Chemical Co. Ltd.	2,100	255,854
Tokyo Tatemono Co. Ltd. (b)	36,500	441,849
Tokyu REIT, Inc.	163	256,859
		<u>5,981,286</u>
Kazakhstan — 0.5%		
NAC Kazatomprom JSC GDR (c)	45,740	1,285,767
Luxembourg — 0.5%		
Ardagh Metal Packaging SA	45,374	218,249
Shurgard Self Storage SA	10,781	495,565
Tenaris SA ADR	11,781	414,220
		<u>1,128,034</u>

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Mexico — 0.2%		
Grupo Mexico SAB de CV Series B	124,209	\$ 437,901
Netherlands — 0.4%		
Akzo Nobel NV	7,372	491,904
Schlumberger NV	6,491	347,009
		838,913
Norway — 1.7%		
Equinor ASA	61,388	2,201,889
Norsk Hydro ASA	204,633	1,532,602
TGS ASA	25,118	339,825
		4,074,316
Portugal — 0.4%		
Galp Energia SGPS SA	70,111	948,704
Republic of Korea — 0.8%		
Korea Zinc Co. ,Ltd.	483	216,692
POSCO Holdings, Inc.	7,143	1,572,244
		1,788,936
Russia — 0.0%		
Alrosa PJSC (a) (d) (e)	688,100	—
MMC Norlisk Nickel PJSC (d) (e)	2,654	—
Polyus PJSC (a) (d) (e)	2,282	—
		—
Singapore — 0.5%		
CapitaLand Mall Trust	518,600	790,751
Digital Core REIT Management Pte Ltd. (b)	470,000	256,873
Lendlease Global Commercial REIT	445,200	234,474
		1,282,098
South Africa — 0.1%		
Impala Platinum Holdings Ltd.	14,600	182,541
Sibanye Stillwater Ltd.	46,655	123,871
		306,412
Spain — 0.2%		
Cellnex Telecom SA (c)	10,222	339,939
Iberdrola SA	20,448	239,190
		579,129
Sweden — 3.2%		
Alfa Laval AB	14,096	407,893
Boliden AB	75,394	2,835,161
Epiroc AB Class A	59,413	1,085,733
Epiroc AB Class B	34,720	559,643
Sandvik AB	125,606	2,267,844
Svenska Cellulosa AB Class B	28,847	364,751
		7,521,025

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
United Kingdom — 6.5%		
Adriatic Metals PLC (a)	121,138	\$ 256,062
Anglo American PLC	10,435	408,141
Big Yellow Group PLC	23,573	327,231
Central Asia Metals PLC	250,514	751,474
Derwent London PLC	14,286	409,297
Glencore PLC	517,314	3,459,162
Great Portland Estates PLC	75,276	449,357
InterContinental Hotels Group PLC	9,143	526,259
Mondi PLC	7,021	119,241
Persimmon PLC	12,977	191,555
Rio Tinto PLC	55,178	3,871,631
Shell PLC	48,729	1,384,767
TechnipFMC PLC (a)	54,314	662,088
The UNITE Group PLC	49,777	548,092
The Weir Group PLC	106,547	2,138,286
		<u>15,502,643</u>
United States — 49.4%		
Acadia Realty Trust	69,502	997,354
AGCO Corp.	2,476	343,396
Air Products & Chemicals, Inc.	3,280	1,011,093
Alaska Air Group, Inc. (a)	7,499	322,007
Albemarle Corp.	1,158	251,124
Alexandria Real Estate Equities, Inc.	15,373	2,239,385
Allegiant Travel Co. (a)	4,480	304,595
Ameren Corp.	3,486	309,975
American Homes 4 Rent Class A	59,488	1,792,968
American Tower Corp.	13,950	2,955,447
Apartment Income REIT Corp.	12,552	430,659
Apple Hospitality REIT, Inc.	81,679	1,288,895
AvalonBay Communities, Inc.	13,591	2,195,218
Avery Dennison Corp.	2,505	453,405
Baker Hughes Co.	13,450	397,178
Ball Corp.	23,894	1,221,939
Cactus, Inc. Class A	10,160	510,642
Camden Property Trust	12,480	1,396,262
Caterpillar, Inc.	2,591	620,700
CF Industries Holdings, Inc.	9,003	767,056
ChampionX Corp.	17,020	493,410
Chesapeake Energy Corp.	7,011	661,628
Chevron Corp.	13,955	2,504,783
CMS Energy Corp.	4,340	274,852
ConocoPhillips	33,963	4,007,634
Crown Castle, Inc.	10,007	1,357,349
Crown Holdings, Inc.	5,366	441,139
CSX Corp.	20,517	635,617
CubeSmart	47,934	1,929,343
Cummins, Inc.	3,364	815,064
Darling Ingredients, Inc. (a)	14,256	892,283
Deere & Co.	3,089	1,324,440
Delta Air Lines, Inc. (a)	18,083	594,207
Devon Energy Corp.	27,028	1,662,492
Dominion Energy, Inc.	5,209	319,416
Douglas Emmett, Inc.	42,298	663,233
DTE Energy Co.	2,281	268,086
EastGroup Properties, Inc.	7,347	1,087,797

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Element Solutions, Inc.	18,022	\$ 327,820
EOG Resources, Inc.	19,874	2,574,080
Equinix, Inc.	7,247	4,747,002
Equity LifeStyle Properties, Inc.	48,645	3,142,467
Equity Residential	36,734	2,167,306
Essex Property Trust, Inc.	8,349	1,769,320
Extra Space Storage, Inc.	2,685	395,178
Federal Realty Investment Trust	1,179	119,126
FMC Corp.	8,497	1,060,426
Frontier Group Holdings, Inc. (a)	57,385	589,344
Halliburton Co.	14,206	559,006
Hess Corp.	16,547	2,346,695
Hilton Worldwide Holdings, Inc.	9,781	1,235,927
Host Hotels & Resorts, Inc.	24,016	385,457
The Howard Hughes Corp. (a)	2,798	213,823
Hubbell, Inc.	3,184	747,221
International Paper Co.	13,275	459,713
JetBlue Airways Corp. (a)	30,447	197,297
Kilroy Realty Corp.	17,539	678,233
Kimco Realty Corp.	22,104	468,163
Liberty Energy, Inc.	11,750	188,117
Magnolia Oil & Gas Corp. Class A	29,887	700,850
Marriott International, Inc. Class A	3,604	536,600
Martin Marietta Materials, Inc.	2,750	929,417
Newmont Corp.	24,133	1,139,078
NextEra Energy, Inc.	3,192	266,851
Norfolk Southern Corp.	4,253	1,048,024
Nucor Corp.	18,462	2,433,476
Packaging Corp. of America	7,287	932,080
Pebblebrook Hotel Trust	56,658	758,651
Pioneer Natural Resources Co.	8,047	1,837,854
Prologis, Inc.	47,445	5,348,475
Public Storage	13,894	3,892,960
Quanta Services, Inc.	3,354	477,945
Rayonier, Inc.	28,611	943,019
Regency Centers Corp.	36,530	2,283,125
Reliance Steel & Aluminum Co.	17,464	3,535,412
Rexford Industrial Realty, Inc.	40,167	2,194,725
Royal Gold, Inc.	1,988	224,087
RPM International, Inc.	10,239	997,791
SBA Communications Corp.	8,352	2,341,149
Sempra Energy	3,741	578,134
The Sherwin-Williams Co.	5,815	1,380,074
Shoals Technologies Group, Inc. Class A (a)	16,210	399,901
Simon Property Group, Inc.	27,395	3,218,365
SL Green Realty Corp. (b)	5,865	197,768
The Southern Co.	7,636	545,287
Southern Copper Corp.	16,032	968,172
Southwest Airlines Co. (a)	16,219	546,094
Steel Dynamics, Inc.	27,357	2,672,779
Sun Country Airlines Holdings, Inc. (a)	36,393	577,193
Terreno Realty Corp.	30,495	1,734,251
Union Pacific Corp.	4,864	1,007,188
United Airlines Holdings, Inc. (a)	14,314	539,638
Ventas, Inc.	32,412	1,460,161
Vulcan Materials Co.	7,816	1,368,660

Welltower, Inc.	34,523	2,262,983
WestRock Co.	6,625	232,935

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments (Continued)

	Number of Shares	Value
Weyerhaeuser Co.	21,859	\$ 677,629
Xcel Energy, Inc.	3,205	224,703
		<u>117,527,276</u>
TOTAL COMMON STOCK (Cost \$220,608,621)		<u>214,625,287</u>
PREFERRED STOCK — 1.0% United States — 1.0%		
Jetti Holdings, Inc., Series C, (Acquired 5/24/21-6/30/21, Cost \$130,426) (a) (d) (e) (f)	2,253	299,406
KoBold Metals, Inc., Series B-1, (Acquired 1/10/22, Cost \$670,800) (a) (d) (e) (f)	24,472	670,800
Lilac Solutions, Inc., Series B, (Acquired 9/08/21, Cost \$329,342) (a) (d) (e) (f)	25,087	342,438
NextEra Energy, Inc. Convertible 5.279%	18,013	913,258
		<u>2,225,902</u>
TOTAL PREFERRED STOCK (Cost \$1,992,987)		<u>2,225,902</u>
TOTAL EQUITIES (Cost \$222,601,608)		<u>216,851,189</u>
MUTUAL FUNDS — 5.2% United States — 5.2%		
Industrial Select Sector SPDR Fund (b)	29,594	2,906,427
iShares MSCI Global Metals & Mining Producers ETF (b)	34,821	1,427,661
SPDR S&P Homebuilders ETF (b)	18,861	1,137,695
SPDR S&P Oil & Gas Exploration & Production ETF	6,166	837,836
State Street Navigator Securities Lending Government Money Market Portfolio (g)	5,162,960	5,162,960
VanEck Oil Services ETF	2,574	782,625
		<u>12,255,204</u>
TOTAL MUTUAL FUNDS (Cost \$12,235,698)		<u>12,255,204</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$234,837,306)		<u>229,106,393</u>
SHORT-TERM INVESTMENTS — 5.6% Mutual Fund — 2.9%		
T. Rowe Price Government Reserve Investment Fund	6,947,754	<u>6,947,754</u>
Repurchase Agreement — 0.4%	Principal Amount	
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (h)	\$ 992,019	<u>992,019</u>

MassMutual Select T. Rowe Price Real Assets Fund — Portfolio of Investments (Continued)

	<u>Principal Amount</u>	<u>Value</u>
U.S. Treasury Bill — 2.3%		
U.S. Treasury Bill		
3.324% 2/16/23 (i) (j)	\$ 1,490,000	\$ 1,482,590
3.607% 2/16/23 (i)	100,000	99,503
4.584% 5/18/23 (i) (j)	4,000,000	3,932,284
		<u>5,514,377</u>
TOTAL SHORT-TERM INVESTMENTS		
(Cost \$13,455,257)		<u>13,454,150</u>
TOTAL INVESTMENTS — 102.1%		
(Cost \$248,292,563) (k)		242,560,543
Other Assets/(Liabilities) — (2.1)%		<u>(4,867,983)</u>
NET ASSETS — 100.0%		<u>\$ 237,692,560</u>

Abbreviation Legend

ADR	American Depositary Receipt
ETF	Exchange-Traded Fund
GDR	Global Depositary Receipt
REIT	Real Estate Investment Trust

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$5,953,434 or 2.50% of net assets. The Fund received \$972,229 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (Note 2).

(c) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$2,112,730 or 0.89% of net assets.

(d) Investment is valued using significant unobservable inputs.

(e) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$1,312,644 or 0.55% of net assets.

(f) Restricted security. Certain securities are restricted as to resale. At December 31, 2022, these securities amounted to a value of \$1,312,644 or 0.55% of net assets. The Fund generally bears the costs, if any, associated with the disposition of restricted securities.

(g) Represents investment of security lending cash collateral. (Note 2).

(h) Maturity value of \$992,160. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,011,870.

(i) The rate shown represents yield-to-maturity.

(j) All or a portion of this security is pledged/held as collateral for open derivatives.

(k) See Note 3 for aggregate cost for federal tax purposes.

Forward contracts

Counterparty	Settlement Date	Currency Purchased	Currency Sold	Unrealized Appreciation (Depreciation)
BNP Paribas SA	1/04/23	BRL	6,139,450	USD 1,176,658 \$ (13,828)
BNP Paribas SA	1/04/23	USD	1,162,775	BRL 6,139,450 (55)
BNP Paribas SA	2/02/23	BRL	6,139,450	USD 1,155,890 604
Deutsche Bank AG	1/13/23	NOK	11,199,430	USD 1,124,181 19,426
Deutsche Bank AG	1/13/23	NOK	11,191,470	EUR 1,060,642 6,719
Goldman Sachs International	1/13/23	USD	1,116,028	SEK 11,506,470 12,741

Morgan Stanley & Co. LLC	1/04/23	USD	1,176,658	BRL	6,139,450	13,828
Morgan Stanley & Co. LLC	1/04/23	BRL	6,139,450	USD	1,131,685	31,145
					<u>\$</u>	<u>70,580</u>

Futures contracts

				Value/ Net Unrealized Appreciation/ (Depreciation)	
		Expiration Date	Number of Contracts	Notional Amount	
Long					
SPI 200 Index		3/16/23	13	\$ 1,586,358	\$ (39,194)
Xab Materials		3/17/23	21	1,821,392	(79,652)
Xae Energy		3/17/23	102	8,953,402	434,678
					<u>\$ 315,832</u>
Short					
U.S. Treasury Note 10 Year		3/22/23	29	\$ (3,265,404)	\$ 8,795
U.S. Treasury Ultra Bond		3/22/23	9	(1,206,269)	(2,544)
					<u>\$ 6,251</u>

Centrally Cleared Interest Rate Swaps

Paid by the Fund				Received by the Fund				
Rate/ Reference	Frequency	Rate/ Reference	Frequency	Termination Date	Notional Amount	Value	Upfront Premium Paid/ (Received)	Unrealized Appreciation (Depreciation)
12-Month USD SOFR	Annually	Fixed 4.547%	Annually	5/18/23	USD 3,625,000	\$ (2,412)	\$ —	\$ (2,412)

Currency Legend

BRL	Brazilian Real
EUR	Euro
NOK	Norwegian Krone
SEK	Swedish Krona
USD	U.S. Dollar

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
EQUITIES — 96.7%		
COMMON STOCK — 94.7%		
Basic Materials — 2.5%		
Chemicals — 1.0%		
AgroFresh Solutions, Inc. (a)	60,688	\$ 179,637
Element Solutions, Inc.	106,731	1,941,436
H.B. Fuller Co.	3,322	237,922
Hawkins, Inc.	7,142	275,681
Orion Engineered Carbons SA	27,005	480,959
PPG Industries, Inc.	5,570	700,372
Quaker Chemical Corp.	8,656	1,444,686
RPM International, Inc.	14,100	1,374,045
		<u>6,634,738</u>
Forest Products & Paper — 0.1%		
Clearwater Paper Corp. (a)	11,492	434,512
West Fraser Timber Co. Ltd. (b)	4,079	294,538
		<u>729,050</u>
Holding Companies-Diversified — 0.0%		
Dynamics Special Purpose Corp., Founders Shares (Acquired 12/22/21, Cost \$0) (a) (c) (d)	607	813
Iron & Steel — 0.2%		
Carpenter Technology Corp.	13,411	495,403
Haynes International, Inc.	10,383	474,399
Reliance Steel & Aluminum Co.	3,543	717,245
		<u>1,687,047</u>
Mining — 1.2%		
AngloGold Ashanti Ltd. Sponsored ADR	45,324	880,192
Cameco Corp.	86,925	1,970,590
Constellium SE (a)	100,825	1,192,760
ERO Copper Corp. (a) (b)	13,723	188,919
Franco-Nevada Corp.	13,543	1,846,109
Freeport-McMoRan, Inc.	21,184	804,992
Fresnillo PLC	163,284	1,772,539
		<u>8,656,101</u>
		<u>17,707,749</u>
Communications — 3.0%		
Advertising — 0.4%		
Advantage Solutions, Inc. (a)	67,419	140,232

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Boston Omaha Corp. Class A (a)	19,960	\$ 528,940
The Trade Desk, Inc. Class A (a)	45,700	2,048,731
		<u>2,717,903</u>
Internet — 0.5%		
Bumble, Inc. Class A (a)	14,599	307,309
Deliveroo PLC (a) (e)	159,333	165,170
Farfetch Ltd. Class A (a) (b)	71,633	338,824
Figs, Inc. Class A (a)	35,662	240,005
Match Group, Inc. (a)	9,000	373,410
Open Lending Corp. Class A (a)	100,599	679,043
Opendoor Technologies, Inc. (a) (b)	66,249	76,849
Palo Alto Networks, Inc. (a)	2,100	293,034
Rover Group, Inc., Earnout Shares 16.00 (Acquired 8/02/21, Cost \$0) (a) (c) (d) (f)	15,883	321
Spotify Technology SA (a)	9,500	750,025
Upwork, Inc. (a)	16,133	168,428
		<u>3,392,418</u>
Media — 1.4%		
DISH Network Corp. Class A (a)	46,278	649,743
Liberty Media Corp-Liberty Formula One Class C (a)	33,000	1,972,740
News Corp. Class A	237,946	4,330,617
Paramount Global Class B	82,587	1,394,069
Saga Communications, Inc. Class A	3,838	90,577
Scholastic Corp.	38,511	1,519,644
		<u>9,957,390</u>
Telecommunications — 0.7%		
Arista Networks, Inc. (a)	8,582	1,041,426
Clearfield, Inc. (a)	1,457	137,162
Corning, Inc.	51,731	1,652,288
Credo Technology Group Holding Ltd. (a)	14,700	195,657
DigitalBridge Group, Inc.	41,495	453,955
Harmonic, Inc. (a)	10,309	135,048
Infinera Corp. (a) (b)	12,888	86,865
Motorola Solutions, Inc.	5,700	1,468,947
		<u>5,171,348</u>
		<u>21,239,059</u>
Consumer, Cyclical — 10.8%		
Airlines — 0.6%		
Allegiant Travel Co. (a)	9,734	661,815
Southwest Airlines Co. (a)	103,916	3,498,852
Sun Country Airlines Holdings, Inc. (a)	10,891	172,731
		<u>4,333,398</u>
Apparel — 0.8%		
adidas AG	5,754	785,479
On Holding AG, Class A (a)	13,420	230,287
Ralph Lauren Corp.	29,472	3,114,306
Skechers U.S.A., Inc. Class A (a)	17,306	725,987

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Steven Madden Ltd.	16,279	\$ 520,277
		<u>5,376,336</u>
Auto Manufacturers — 0.7%		
Blue Bird Corp. (a)	13,328	142,743
General Motors Co.	52,874	1,778,682
PACCAR, Inc.	22,260	2,203,072
Rivian Automotive, Inc. Class A (a)	52,354	964,884
		<u>5,089,381</u>
Auto Parts & Equipment — 0.2%		
Dorman Products, Inc. (a)	6,924	559,944
The Shyft Group, Inc.	3,660	90,987
Visteon Corp. (a)	3,365	440,243
		<u>1,091,174</u>
Distribution & Wholesale — 0.6%		
IAA, Inc. (a)	8,186	327,440
Pool Corp.	328	99,164
SiteOne Landscape Supply, Inc. (a)	22,486	2,638,057
ThredUp, Inc. Class A (a)	18,155	23,783
Univar Solutions, Inc. (a)	24,527	779,959
		<u>3,868,403</u>
Entertainment — 0.5%		
Cinemark Holdings, Inc. (a)	16,212	140,396
Madison Square Garden Entertainment Corp. (a)	17,798	800,376
Madison Square Garden Sports Corp.	4,746	870,084
Marriott Vacations Worldwide Corp.	6,456	868,913
Red Rock Resorts, Inc. Class A	4,601	184,086
Vail Resorts, Inc.	3,700	881,895
		<u>3,745,750</u>
Food Services — 0.2%		
Compass Group PLC	73,722	1,703,491
Home Builders — 0.3%		
Cavco Industries, Inc. (a)	1,248	282,360
Horizon Global Corp. (a)	39,691	15,432
LCI Industries	3,585	331,433
Meritage Home Corp. (a)	9,990	921,078
Skyline Champion Corp. (a)	12,796	659,122
		<u>2,209,425</u>
Housewares — 0.2%		
The Scotts Miracle-Gro Co. (b)	29,201	1,418,877
Leisure Time — 0.0%		
Peloton Interactive, Inc. Class A (a) (b)	13,105	104,054
Rad Power Bikes, Inc., Class A (Acquired 1/22/21, Cost \$69,082) (a) (c) (d) (f)	14,321	61,151
		<u>165,205</u>

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Lodging — 0.8%		
Hilton Worldwide Holdings, Inc.	23,500	\$ 2,969,460
MGM Resorts International	73,082	2,450,439
Wyndham Hotels & Resorts, Inc.	6,126	436,845
		<u>5,856,744</u>
Retail — 5.8%		
Academy Sports & Outdoors, Inc.	3,929	206,430
Bath & Body Works, Inc.	57,543	2,424,862
Beacon Roofing Supply, Inc. (a)	24,183	1,276,620
Best Buy Co., Inc.	19,021	1,525,674
BJ's Restaurants, Inc. (a)	25,908	683,453
Burlington Stores, Inc. (a)	48,833	9,901,379
Casey's General Stores, Inc.	8,700	1,951,845
The Children's Place, Inc. (a)	3,954	144,005
Chipotle Mexican Grill, Inc. (a)	720	998,993
Chuy's Holdings, Inc. (a)	16,292	461,064
Dollar General Corp.	10,200	2,511,750
Dollar Tree, Inc. (a)	14,177	2,005,195
Domino's Pizza, Inc.	5,250	1,818,600
Dutch Bros, Inc., Class A (a) (b)	4,306	121,386
Fiesta Restaurant Group, Inc. (a)	31,292	229,996
Five Below, Inc. (a)	10,311	1,823,706
Floor & Decor Holdings, Inc. Class A (a)	24,743	1,722,855
Framebridge Future Contingency Payments (Acquired 5/19/20, Cost \$10,553) (a) (c) (d) (f)	10,553	4,749
Hibbett, Inc.	3,006	205,069
LL Flooring Holdings, Inc. (a)	26,112	146,749
Lululemon Athletica, Inc. (a)	1,300	416,494
O'Reilly Automotive, Inc. (a)	2,100	1,772,463
Ollie's Bargain Outlet Holdings, Inc. (a)	22,727	1,064,533
Papa John's International, Inc.	24,402	2,008,529
Petco Health & Wellness Co., Inc. (a) (b)	30,691	290,951
Red Robin Gourmet Burgers, Inc. (a)	8,196	45,734
RH (a)	1,026	274,137
Ross Stores, Inc.	9,100	1,056,237
Rush Enterprises, Inc. Class A	12,290	642,521
Ruth's Hospitality Group, Inc.	13,108	202,912
Sweetgreen, Inc. Class A (a) (b)	21,922	187,871
Warby Parker, Inc. Class A (a)	50,185	676,996
Wingstop, Inc.	6,961	957,973
Winmark Corp.	1,103	260,120
Yum! Brands, Inc.	5,300	678,824
		<u>40,700,675</u>
Textiles — 0.1%		
Bombas LLC. (Acquired 2/12/21, Cost \$183,470) (a) (c) (d) (f)	41,514	145,714
UniFirst Corp.	960	185,271
		<u>330,985</u>
		<u>75,889,844</u>
Consumer, Non-cyclical — 24.7%		
Agriculture — 0.2%		
Bunge Ltd.	16,423	1,638,523

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Pax Labs, Inc., Class A (Acquired 4/18/19, Cost \$218,578) (a) (c) (d) (f)	58,048	\$ 38,312
		1,676,835
Beverages — 1.2%		
The Boston Beer Co., Inc. Class A (a)	6,120	2,016,662
Carlsberg A/S Class B	14,520	1,922,107
Coca-Cola Consolidated, Inc.	2,024	1,037,017
Constellation Brands, Inc. Class A	6,885	1,595,599
Monster Beverage Corp. (a)	15,384	1,561,937
		8,133,322
Biotechnology — 4.6%		
Abcam PLC Sponsored ADR (a)	74,906	1,165,537
ACADIA Pharmaceuticals, Inc. (a)	5,060	80,555
Akero Therapeutics, Inc. (a)	4,191	229,667
Allogene Therapeutics, Inc. (a)	10,030	63,089
Alnylam Pharmaceuticals, Inc. (a)	16,631	3,952,357
Apellis Pharmaceuticals, Inc. (a)	35,578	1,839,738
Argenx SE ADR (a)	9,646	3,654,194
Avid Bioservices, Inc. (a)	23,873	328,731
Avidity Biosciences, Inc. (a)	16,218	359,877
BeiGene Ltd. ADR (a)	759	166,934
Blueprint Medicines Corp. (a)	22,482	984,936
C4 Therapeutics, Inc. (a)	6,196	36,556
Cerevel Therapeutics Holdings, Inc. (a)	20,056	632,566
Certara, Inc. (a)	12,280	197,340
CinCor Pharma, Inc. (a)	1,598	19,639
Corteva, Inc.	18,545	1,090,075
CRISPR Therapeutics AG (a)	14,360	583,734
Cytokinetics, Inc. (a)	2,900	132,878
Day One Biopharmaceuticals, Inc. (a)	4,153	89,373
Denali Therapeutics, Inc. (a)	9,991	277,850
DICE Therapeutics, Inc. (a)	5,974	186,389
Entrada Therapeutics, Inc. (a) (b)	6,271	84,784
Exelixis, Inc. (a)	7,237	116,082
Exscientia PLC ADR (a)	1,673	8,917
Fate Therapeutics, Inc. (a)	6,240	62,962
Generation Bio Co., (a)	36,471	143,331
Gossamer Bio, Inc. (a) (b)	1,873	4,064
HilleVax, Inc. (a)	7,986	133,606
Horizon Therapeutics PLC (a)	14,200	1,615,960
Icosavax, Inc. (a)	28,040	222,638
Ideaya Biosciences, Inc. (a)	4,373	79,457
IGM Biosciences, Inc. (a)	4,316	73,415
Incyte Corp. (a)	1,235	99,195
Insmed, Inc. (a)	69,484	1,388,290
Intellia Therapeutics, Inc. (a)	6,338	221,133
Ionis Pharmaceuticals, Inc. (a)	54,280	2,050,156
Iovance Biotherapeutics, Inc. (a)	4,659	29,771
IVERIC bio, Inc. (a)	6,489	138,930
Karuna Therapeutics, Inc. (a)	8,794	1,728,021
Keros Therapeutics, Inc. (a)	1,399	67,180
Kymera Therapeutics, Inc. (a)	23,653	590,379
MacroGenics, Inc. (a)	20,074	134,697
MeiraGTx Holdings PLC (a)	2,135	13,920
Mirati Therapeutics, Inc. (a)	1,304	59,084

Monte Rosa Therapeutics, Inc. (a)

18,919

143,974

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
MorphoSys AG ADR (a)	49,980	\$ 178,928
NeoGenomics, Inc. (a)	18,974	175,320
Nkarta, Inc. (a)	30,640	183,534
Nurix Therapeutics, Inc. (a)	9,032	99,171
Nuvalent, Inc., Class A (a)	1,032	30,733
Olink Holding AB ADR (a) (b)	17,406	441,764
Pliant Therapeutics, Inc. (a)	1,800	34,794
Prime Medicine, Inc. (a)	1,434	26,644
Prime Medicine, Inc. (Acquired 4/19/21, Cost \$40,943) (a) (c) (d)	3,006	53,059
Prothena Corp. PLC (a)	13,460	810,965
PTC Therapeutics, Inc. (a)	1,285	49,048
RAPT Therapeutics, Inc. (a)	14,192	281,002
Relay Therapeutics, Inc. (a)	23,216	346,847
Replimune Group, Inc. (a)	17,230	468,656
Revolution Medicines, Inc. (a)	4,846	115,432
Rocket Pharmaceuticals, Inc. (a)	2,287	44,757
Sage Therapeutics, Inc. (a)	2,521	96,151
Sana Biotechnology, Inc. (a) (b)	6,238	24,640
Scholar Rock Holding Corp. (a)	27,439	248,323
Seagen, Inc. (a)	5,600	719,656
Seer, Inc. (a)	16,250	94,250
Senti Biosciences, Inc. (a) (b)	5,462	7,701
Syndax Pharmaceuticals, Inc. (a)	6,709	170,744
Tenaya Therapeutics, Inc. (a)	20,228	40,658
Ultragenyx Pharmaceutical, Inc. (a)	9,429	436,846
Ventyx Biosciences, Inc. (a)	3,527	115,650
Verve Therapeutics, Inc. (a)	11,371	220,029
Xencor, Inc. (a)	28,938	753,546
Zai Lab Ltd. ADR (a)	2,756	84,609
Zentalis Pharmaceuticals, Inc. (a)	17,253	347,475
		<u>31,982,893</u>
Commercial Services — 5.4%		
Altus Group Ltd. (b)	3,533	141,007
American Public Education, Inc. (a)	12,591	154,743
Ashtead Group PLC	21,869	1,249,304
Booz Allen Hamilton Holding Corp.	24,547	2,565,652
Bright Horizons Family Solutions, Inc. (a)	44,676	2,819,056
Clarivate PLC (a)	48,482	404,340
CoStar Group, Inc. (a)	40,871	3,158,511
Equifax, Inc.	18,151	3,527,828
FleetCor Technologies, Inc. (a)	12,300	2,259,264
FTI Consulting, Inc. (a)	2,248	356,982
Global Payments, Inc.	16,278	1,616,731
Green Dot Corp. Class A (a)	20,529	324,769
Herc Holdings, Inc.	1,691	222,485
Huron Consulting Group, Inc. (a)	4,914	356,756
Legalzoom.com Inc. (a)	14,353	111,092
MarketAxess Holdings, Inc.	6,975	1,945,258
Monro, Inc.	24,814	1,121,593
Multiplan Corp. (a) (b)	160,871	185,002
Paylocity Holding Corp. (a)	20,080	3,900,741
Payoneer Global, Inc. (a)	133,811	731,946
PROG Holdings, Inc. (a)	15,007	253,468
Rent the Runway, Inc. Class A (a)	14,550	44,378

Rentokil Initial PLC	162,618	999,497
SEACOR Marine Holdings Inc. (a)	41,333	378,610
Strategic Education, Inc.	33,364	2,613,069

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Toast, Inc., Class A (a)	126,744	\$ 2,285,194
TransUnion	24,800	1,407,400
United Rentals, Inc. (a)	2,800	995,176
Verisk Analytics, Inc.	9,800	1,728,916
WillScot Mobile Mini Holdings Corp. (a)	5,865	264,922
		<u>38,123,690</u>
Food — 1.8%		
Cal-Maine Foods, Inc.	3,197	174,077
Campbell Soup Co.	9,770	554,447
Flowers Foods, Inc.	137,380	3,948,301
Grocery Outlet Holding Corp. (a)	904	26,388
Nomad Foods Ltd. (a)	65,950	1,136,978
Post Holdings, Inc. (a)	13,952	1,259,308
The Simply Good Foods Co. (a)	19,991	760,258
Sysco Corp.	37,801	2,889,886
TreeHouse Foods, Inc. (a)	26,878	1,327,236
Utz Brands, Inc. (b)	39,497	626,422
		<u>12,703,301</u>
Health Care – Products — 6.1%		
Adaptive Biotechnologies Corp. (a)	3,894	29,750
Alcon, Inc.	22,200	1,521,810
AtriCure, Inc. (a)	7,996	354,862
Atrion Corp.	839	469,379
Avantor, Inc. (a)	124,900	2,634,141
Bruker Corp.	65,013	4,443,639
The Cooper Cos., Inc.	8,400	2,777,628
Cvrx, Inc. (a) (b)	4,148	76,116
Dentsply Sirona, Inc.	76,492	2,435,505
Exact Sciences Corp. (a)	10,500	519,855
Gyroscope Therapeutics, Milesone Payment 1 (Acquired 2/18/22, Cost \$31,900) (a) (c) (d) (f)	31,900	15,631
Gyroscope Therapeutics, Milesone Payment 2 (Acquired 2/18/22, Cost \$21,260) (a) (c) (d) (f)	21,260	5,740
Gyroscope Therapeutics, Milesone Payment 3 (Acquired 2/18/22, Cost \$21,260) (a) (c) (d) (f)	21,260	5,528
Hologic, Inc. (a)	80,700	6,037,167
ICU Medical, Inc. (a)	10,724	1,688,815
Koninklijke Philips NV	116,702	1,751,608
Lantheus Holdings, Inc. (a)	7,796	397,284
Masimo Corp. (a)	3,600	532,620
Neogen Corp. (a)	22,700	345,721
Novocure Ltd. (a)	1,539	112,886
Pacific Biosciences of California, Inc. (a)	43,436	355,306
Penumbra, Inc. (a)	2,755	612,877
PROCEPT BioRobotics Corp. (a)	17,229	715,693
Quidelortho Corp. (a)	29,310	2,510,988
Rapid Micro Biosystems, Inc., Class A (a) (b)	15,636	17,669
Repligen Corp. (a)	13,139	2,224,564
Sartorius Stedim Biotech	976	317,975
Shockwave Medical, Inc. (a)	480	98,693
Teleflex, Inc.	18,140	4,528,288
Utah Medical Products, Inc.	3,032	304,807
West Pharmaceutical Services, Inc.	8,374	1,970,821

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Zimmer Biomet Holdings, Inc.	25,216	\$ 3,215,040
		<u>43,028,406</u>
Health Care – Services — 3.0%		
Acadia Healthcare Co., Inc. (a)	28,000	2,304,960
Agiliti, Inc. (a) (b)	25,342	413,328
agilon health, Inc. (a) (b)	10,261	165,613
Catalent, Inc. (a)	47,854	2,153,908
Centene Corp. (a)	22,282	1,827,347
Charles River Laboratories International, Inc. (a)	9,010	1,963,279
dentalcorp Holdings Ltd. (a) (b)	18,724	123,075
The Ensign Group, Inc.	8,148	770,882
Eurofins Scientific SE	5,559	400,314
Flame Biosciences, Inc. (Acquired 9/28/20, Cost \$60,083) (a) (c) (d) (f)	9,173	42,104
Fresenius SE & Co. KGaA	38,141	1,073,092
Ginkgo Bioworks, Inc., Earnout Shares 15.00 (Acquired 9/17/21, Cost \$0) (a) (c) (d) (f)	874	462
Ginkgo Bioworks, Inc., Earnout Shares 17.50 (Acquired 9/17/21, Cost \$0) (a) (c) (d) (f)	874	418
Ginkgo Bioworks, Inc., Earnout Shares 20.00 (Acquired 9/17/21, Cost \$0) (a) (c) (d) (f)	874	381
Innovage Holding Corp. (a)	41,043	294,689
ModivCare, Inc. (a)	7,673	688,498
Molina Healthcare, Inc. (a)	8,205	2,709,455
The Pennant Group, Inc. (a)	29,722	326,348
Select Medical Holdings Corp.	229,548	5,699,677
U.S. Physical Therapy, Inc.	5,337	432,457
		<u>21,390,287</u>
Household Products & Wares — 0.7%		
Avery Dennison Corp.	13,400	2,425,400
Kimberly-Clark Corp.	7,856	1,066,452
Reynolds Consumer Products, Inc.	43,600	1,307,128
		<u>4,798,980</u>
Pharmaceuticals — 1.7%		
Agios Pharmaceuticals, Inc. (a)	7,849	220,400
Alector, Inc. (a)	2,225	20,537
Arvinas, Inc. (a)	11,180	382,468
Ascendis Pharma A/S ADR (a)	18,897	2,307,891
BellRing Brands, Inc. (a)	39,235	1,005,985
Capsule Corp. (Acquired 4/07/21, Cost \$144,670) (a) (c) (d) (f)	9,983	29,265
Cardinal Health, Inc.	21,024	1,616,115
Centessa Pharmaceuticals PLC ADR (a) (b)	3,637	11,275
Elanco Animal Health, Inc. (a)	61,064	746,202
Embecta Corp.	27,981	707,639
Immuneering Corp. Class A (a)	8,525	41,346
Kura Oncology, Inc. (a)	18,875	234,239
Longboard Pharmaceuticals, Inc. (a)	3,060	9,669
Lyell Immunopharma, Inc. (a)	7,678	26,643
Morphic Holding, Inc. (a)	6,791	181,659
Neurocrine Biosciences, Inc. (a)	1,457	174,024
Option Care Health, Inc. (a)	33,822	1,017,704
Patterson Cos., Inc.	39,404	1,104,494
Prometheus Biosciences, Inc. (a)	5,704	627,440
Reata Pharmaceuticals, Inc. Class A (a) (b)	3,018	114,654

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Repare Therapeutics, Inc. (a)	13,913	\$ 204,660
Vaxcyte, Inc. (a)	3,067	147,063
Viatis, Inc.	83,371	927,919
		<u>11,859,291</u>
		<u>173,697,005</u>
Diversified — 0.1%		
Holding Company – Diversified — 0.1%		
Conyers Park III Acquisition Corp. (a)	31,244	308,066
Post Holdings Partnering Corp. (a)	21,493	216,150
		<u>524,216</u>
		<u>524,216</u>
Energy — 4.7%		
Energy – Alternate Sources — 0.3%		
NextEra Energy Partners LP (b)	12,636	885,657
REX American Resources Corp. (a)	4,579	145,887
Shoals Technologies Group, Inc. Class A (a)	31,575	778,955
		<u>1,810,499</u>
Oil & Gas — 1.7%		
Advantage Energy Ltd. (a)	60,328	421,940
Canadian Natural Resources Ltd.	16,421	911,858
Coterra Energy, Inc.	32,000	786,240
Devon Energy Corp.	23,978	1,474,887
Diamondback Energy, Inc.	7,811	1,068,389
Imperial Oil Ltd. (b)	20,298	989,324
Kimbell Royalty Partners LP	18,562	309,985
Magnolia Oil & Gas Corp. Class A	101,824	2,387,773
Matador Resources Co.	22,739	1,301,580
Pioneer Natural Resources Co.	9,766	2,230,457
Venture Global LNG, Inc., Series B (Acquired 3/08/18, Cost \$33,220) (a) (c) (d) (f)	11	162,748
Venture Global LNG, Inc., Series C (Acquired 3/08/18, Cost \$27,180) (a) (c) (d) (f)	9	133,157
		<u>12,178,338</u>
Oil & Gas Services — 2.2%		
Aris Water Solution, Inc. Class A (b)	25,654	369,674
ChampionX Corp.	25,115	728,084
Enerflex Ltd. (b)	73,415	463,046
Expro Group Holdings NV (a)	129,495	2,347,744
Liberty Energy, Inc.	72,364	1,158,547
NexTier Oilfield Solutions, Inc. (a)	68,274	630,852
Nov, Inc.	68,553	1,432,072
Ranger Energy Services, Inc. (a)	31,032	341,662
TechnipFMC PLC (a)	455,530	5,552,911
Tidewater, Inc. (a)	72,909	2,686,697
		<u>15,711,289</u>
Pipelines — 0.5%		
Cheniere Energy, Inc.	8,500	1,274,660

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Equitrans Midstream Corp.	284,978	\$ 1,909,353
		3,184,013
		32,884,139
Financial — 17.0%		
Banks — 6.4%		
BankUnited, Inc.	47,071	1,599,002
Blue Foundry Bancorp (a)	20,556	264,145
Burke & Herbert Bank & Trust Co.	3,920	277,144
Cadence Bank	27,074	667,645
Coastal Financial Corp. (a)	6,005	285,358
Columbia Banking System, Inc.	27,265	821,494
CRB Group, Inc. (Acquired 4/14/22, Cost \$73,283) (a) (c) (d) (f)	697	53,920
CrossFirst Bancshares, Inc. (a)	31,022	384,983
Dime Community Bancshares, Inc.	15,759	501,609
Dogwood State Bank, (Non-Voting) (Acquired 5/06/19, Cost \$53,690) (a) (c) (d) (f)	5,369	96,642
Dogwood State Bank, (Voting) (Acquired 5/06/19, Cost \$26,370) (a) (c) (d) (f)	2,637	47,466
East West Bancorp, Inc.	21,322	1,405,120
Eastern Bankshares, Inc.	27,099	467,458
Equity Bancshares, Inc. Class A	9,517	310,920
Farmers & Merchants Bank of Long Beach/Long Beach CA	31	231,415
FB Financial Corp.	33,061	1,194,825
Fifth Third Bancorp	116,146	3,810,750
The First Bancshares, Inc.	19,663	629,413
Five Star Bancorp	9,617	261,967
Glacier Bancorp, Inc.	10,510	519,404
HarborOne Bancorp, Inc.	35,190	489,141
Heritage Commerce Corp.	38,877	505,401
Home BancShares, Inc.	62,247	1,418,609
Independent Bank Corp.	9,636	813,567
Independent Bank Group, Inc.	10,746	645,620
John Marshall Bancorp, Inc.	11,333	326,164
Kearny Financial Corp.	48,462	491,889
Live Oak Bancshares, Inc.	43,529	1,314,576
Metropolitan Bank Holding Corp. (a)	4,601	269,941
National Bank Holdings Corp. Class A	21,297	895,965
Origin Bancorp, Inc.	22,918	841,091
P10, Inc.	29,684	316,728
Pinnacle Financial Partners, Inc.	24,219	1,777,675
Ponce Financial Group, Inc. (a)	21,067	196,344
Popular, Inc.	45,407	3,011,392
Preferred Bank	8,200	611,884
Provident Bancorp, Inc.	13,162	95,819
Sandy Spring Bancorp, Inc.	9,815	345,782
Signature Bank	21,448	2,471,239
Southern First Bancshares, Inc. (a)	5,100	233,325
SouthState Corp.	21,250	1,622,650
State Street Corp.	38,402	2,978,843
SVB Financial Group (a)	1,708	393,079
Texas Capital Bancshares, Inc. (a)	23,839	1,437,730
Towne Bank	26,103	805,016
Veritex Holdings, Inc.	22,550	633,204
Walker & Dunlop, Inc.	6,643	521,343
Webster Financial Corp.	58,756	2,781,509

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Westamerica Bancorp.	6,576	\$ 388,050
Western Alliance Bancorp	39,374	2,345,115
		<u>44,809,371</u>
Diversified Financial Services — 2.4%		
Air Lease Corp.	19,163	736,242
Apollo Global Management, Inc.	24,383	1,555,392
Assetmark Financial Holdings, Inc. (a)	18,144	417,312
Cboe Global Markets, Inc.	11,039	1,385,063
Columbia Financial, Inc. (a)	8,780	189,824
Encore Capital Group, Inc. (a)	6,936	332,512
Grasshopper Bancorp, Inc. (Acquired 5/02/19, Cost \$83,390) (a) (c) (d) (f)	8,339	33,356
Hannon Armstrong Sustainable Infrastructure Capital, Inc.	27,409	794,313
Houlihan Lokey, Inc.	9,567	833,860
Intercontinental Exchange, Inc.	14,200	1,456,778
NerdWallet, Inc. Class A (a)	13,732	131,827
OneMain Holdings, Inc.	35,298	1,175,776
OTC Markets Group, Inc. Class A	4,941	281,143
PennyMac Financial Services, Inc.	34,033	1,928,310
PRA Group, Inc. (a)	21,635	730,830
Radian Group, Inc.	40,674	775,653
Raymond James Financial, Inc.	7,050	753,293
Stash Financial, Inc. (Acquired 1/06/21-1/26/21, Cost \$15,690) (a) (c) (d) (f)	487	17,050
StepStone Group, Inc. Class A	34,691	873,519
TMX Group Ltd.	4,110	411,364
Tradeweb Markets, Inc. Class A	25,500	1,655,715
Virtus Investment Partners, Inc.	3,026	579,297
		<u>17,048,429</u>
Insurance — 3.4%		
Assurant, Inc.	22,795	2,850,743
Axis Capital Holdings Ltd.	43,373	2,349,515
Brown & Brown, Inc.	30,569	1,741,516
BRP Group, Inc. Class A (a)	34,557	868,763
CNA Financial Corp.	43,244	1,828,356
Essent Group Ltd.	8,336	324,104
First American Financial Corp.	6,474	338,849
The Hanover Insurance Group, Inc.	5,690	768,890
Jackson Financial, Inc., Class A	38,329	1,333,466
James River Group Holdings Ltd.	25,522	533,665
Kemper Corp.	57,469	2,827,475
Loews Corp.	32,712	1,908,091
Palomar Holdings, Inc. (a)	8,509	384,266
ProAssurance Corp.	12,111	211,579
RenaissanceRe Holdings Ltd.	18,302	3,371,778
Ryan Specialty Holdings, Inc. (a)	12,647	524,977
Selective Insurance Group, Inc.	18,772	1,663,387
		<u>23,829,420</u>
Private Equity — 0.3%		
KKR & Co., Inc.	45,800	2,126,036
Real Estate — 0.6%		
eXp World Holdings, Inc. (b)	7,225	80,053
FirstService Corp.	16,636	2,038,742
McGrath RentCorp	5,738	566,570

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
The St. Joe Co.	20,451	\$ 790,431
Tricon Residential, Inc.	114,734	884,599
		<u>4,360,395</u>
Real Estate Investment Trusts (REITS) — 3.5%		
Apartment Investment and Management Co. Class A	175,219	1,247,559
Apple Hospitality REIT, Inc.	37,771	596,026
Community Healthcare Trust, Inc.	7,332	262,486
CubeSmart	35,433	1,426,178
Digital Realty Trust, Inc.	6,611	662,885
EastGroup Properties, Inc.	13,838	2,048,854
Elme Communities	34,829	619,956
Equity Commonwealth	19,197	479,349
Equity Residential	17,187	1,014,033
Essential Properties Realty Trust, Inc.	26,009	610,431
First Industrial Realty Trust, Inc.	3,428	165,435
Flagship Communities REIT	5,389	87,517
Independence Realty Trust, Inc.	34,875	587,993
JBG SMITH Properties	50,771	963,634
NexPoint Residential Trust, Inc.	2,900	126,208
Omega Healthcare Investors, Inc.	9,981	278,969
Pebblebrook Hotel Trust	32,998	441,843
PennyMac Mortgage Investment Trust (b)	32,587	403,753
PotlatchDeltic Corp.	12,807	563,380
Rayonier, Inc.	51,997	1,713,821
Regency Centers Corp.	28,099	1,756,188
Rexford Industrial Realty, Inc.	42,517	2,323,129
Safehold, Inc. (b)	15,953	456,575
Saul Centers, Inc.	15,030	611,421
SBA Communications Corp.	1,991	558,097
Simon Property Group, Inc.	3,932	461,931
Terreno Realty Corp.	28,037	1,594,464
UMH Properties, Inc.	6,526	105,069
Vornado Realty Trust	34,653	721,129
Weyerhaeuser Co.	55,551	1,722,081
		<u>24,610,394</u>
Savings & Loans — 0.4%		
Capitol Federal Financial, Inc.	24,111	208,560
FS Bancorp, Inc.	6,395	213,849
Pacific Premier Bancorp, Inc.	29,909	943,928
WSFS Financial Corp.	20,931	949,012
		<u>2,315,349</u>
		<u>119,099,394</u>
Industrial — 16.6%		
Aerospace & Defense — 0.7%		
Bombardier, Inc. Class B (a)	6,355	245,329
Rolls-Royce Holdings PLC (a)	1,735,119	1,942,623
Spirit AeroSystems Holdings, Inc. Class A	62,238	1,842,245
Triumph Group, Inc. (a)	62,533	657,847
		<u>4,688,044</u>

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Building Materials — 1.6%		
Fortune Brands Innovations, Inc.	6,038	\$ 344,830
Gibraltar Industries, Inc. (a)	9,742	446,963
JELD-WEN Holding, Inc. (a)	16,793	162,053
Martin Marietta Materials, Inc.	6,131	2,072,094
Masterbrand, Inc. (a)	654	4,938
Mohawk Industries, Inc. (a)	15,736	1,608,534
SPX Technologies, Inc. (a)	25,691	1,686,614
Summit Materials, Inc. Class A (a)	83,708	2,376,477
UFP Industries, Inc.	12,972	1,028,031
Vulcan Materials Co.	7,649	1,339,416
		<u>11,069,950</u>
Electrical Components & Equipment — 0.5%		
Belden, Inc.	13,542	973,670
Insteel Industries, Inc.	5,002	137,655
Littelfuse, Inc.	8,911	1,962,202
Novanta, Inc. (a)	5,488	745,655
		<u>3,819,182</u>
Electronics — 2.5%		
Agilent Technologies, Inc.	32,300	4,833,695
Amphenol Corp. Class A	19,300	1,469,502
Brady Corp. Class A	14,070	662,697
CTS Corp.	19,926	785,483
Fortive Corp.	42,100	2,704,925
Hubbell, Inc.	4,724	1,108,628
Keysight Technologies, Inc. (a)	18,100	3,096,367
Knowles Corp. (a)	18,203	298,893
National Instruments Corp.	45,168	1,666,699
Vontier Corp.	42,689	825,179
		<u>17,452,068</u>
Environmental Controls — 0.3%		
Stericycle, Inc. (a)	16,915	843,889
Tetra Tech, Inc.	4,525	656,985
Waste Connections, Inc.	5,400	715,824
		<u>2,216,698</u>
Hand & Machine Tools — 0.7%		
Cadre Holdings, Inc.	7,823	157,555
Enerpac Tool Group Corp.	38,038	968,067
MSA Safety, Inc.	4,444	640,781
Stanley Black & Decker, Inc.	39,819	2,991,203
		<u>4,757,606</u>
Machinery – Construction & Mining — 0.1%		
BWX Technologies, Inc.	12,500	726,000
Machinery – Diversified — 3.6%		
Alamo Group, Inc.	3,420	484,272
Cactus, Inc. Class A	20,572	1,033,949
CIRCOR International, Inc. (a)	19,438	465,734
Cognex Corp.	17,800	838,558

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
CSW Industrials, Inc.	8,052	\$ 933,468
Enovis Corp. (a)	21,133	1,131,038
Esab Corp.	37,211	1,745,940
Graco, Inc.	9,525	640,652
Hydrofarm Holdings Group, Inc. (a)	6,021	9,333
IDEX Corp.	14,730	3,363,301
Ingersoll Rand, Inc.	159,085	8,312,191
Marel HF	27,870	96,644
The Middleby Corp. (a)	13,207	1,768,417
Mueller Water Products, Inc. Class A	38,781	417,284
Rockwell Automation, Inc.	5,902	1,520,178
Thermon Group Holdings, Inc. (a)	22,927	460,374
The Toro Co.	18,206	2,060,919
Zurn Elkay Water Solutions Corp.	16,325	345,274
		<u>25,627,526</u>
Metal Fabricate & Hardware — 0.9%		
AZZ, Inc.	15,949	641,150
Helios Technologies, Inc.	20,059	1,092,012
RBC Bearings, Inc. (a)	13,230	2,769,700
Strattec Security Corp. (a)	3,912	80,392
Valmont Industries, Inc.	2,333	771,453
Xometry, Inc. Class A (a)	31,977	1,030,619
		<u>6,385,326</u>
Miscellaneous - Manufacturing — 2.7%		
Alstom SA (b)	51,476	1,263,857
EnPro Industries, Inc.	2,400	260,856
ESCO Technologies, Inc.	16,128	1,411,845
Federal Signal Corp.	17,166	797,704
John Bean Technologies Corp.	5,957	544,053
Myers Industries, Inc.	23,489	522,161
Teledyne Technologies, Inc. (a)	9,064	3,624,784
Textron, Inc.	117,683	8,331,956
Trane Technologies PLC	11,242	1,889,668
		<u>18,646,884</u>
Packaging & Containers — 1.0%		
Ball Corp.	76,937	3,934,558
Sealed Air Corp.	37,400	1,865,512
WestRock Co.	36,733	1,291,532
		<u>7,091,602</u>
Transportation — 2.0%		
C.H. Robinson Worldwide, Inc.	13,798	1,263,345
International Seaways, Inc.	5,650	209,163
J.B. Hunt Transport Services, Inc.	35,982	6,273,822
Landstar System, Inc.	8,353	1,360,704
Matson, Inc.	1,133	70,824
Old Dominion Freight Line, Inc.	9,081	2,577,006
Saia, Inc. (a)	11,241	2,357,013

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
US Xpress Enterprises, Inc. Class A (a)	23,308	\$ 42,187
		14,154,064
		116,634,950
Technology — 12.6%		
Auto Parts & Equipment — 0.0%		
Mobileye Global, Inc. Class A (a)	3,216	112,753
Commercial Services — 0.0%		
Socure, Inc. (Acquired 12/22/21, Cost \$62,185) (a) (c) (d) (f)	3,870	28,948
Computers — 1.9%		
Apiture, Inc. (Acquired 7/01/20-6/30/22, Cost \$97,636) (a) (c) (d) (f)	6,130	101,865
Coalition, Inc. (Acquired 9/13/21, Cost \$4,230) (a) (c) (d) (f)	256	5,513
Conduent, Inc. (a)	55,774	225,885
Crowdstrike Holdings, Inc. Class A (a)	13,062	1,375,298
Endava PLC Sponsored ADR (a)	24,593	1,881,365
Fortinet, Inc. (a)	56,100	2,742,729
Globant SA (a)	8,970	1,508,395
Leidos Holdings, Inc.	5,300	557,507
PAR Technology Corp. (a) (b)	15,384	401,061
Parsons Corp. (a)	28,348	1,311,095
Western Digital Corp. (a)	108,686	3,429,043
		13,539,756
Semiconductors — 3.5%		
Entegris, Inc.	46,648	3,059,642
KLA Corp.	7,459	2,812,267
Lattice Semiconductor Corp. (a)	49,776	3,229,467
MACOM Technology Solutions Holdings, Inc. (a)	11,088	698,322
Marvell Technology, Inc.	132,984	4,925,728
MaxLinear, Inc. (a)	8,360	283,822
Microchip Technology, Inc.	78,400	5,507,600
MKS Instruments, Inc.	11,130	943,045
Monolithic Power Systems, Inc.	4,456	1,575,686
NXP Semiconductor NV	1,800	284,454
Onto Innovation, Inc. (a)	12,136	826,340
		24,146,373
Software — 7.2%		
Agilysys, Inc. (a)	6,158	487,344
Alignment Healthcare, Inc. (a)	58,758	690,994
Amplitude, Inc. (a) (b)	14,244	172,068
Atlassian Corp. (a)	22,328	2,873,167
Bill.com Holdings, Inc. (a)	26,767	2,916,532
Black Knight, Inc. (a)	27,168	1,677,624
Blackline, Inc. (a)	8,718	586,460
Broadridge Financial Solutions, Inc.	7,700	1,032,801
CCC Intelligent Solutions Holdings, Inc. (a)	104,684	910,751
Ceridian HCM Holding, Inc. (a)	44,567	2,858,973
Checkr, Inc. (Acquired 6/29/18-12/02/19, Cost \$116,452) (a) (c) (d) (f)	15,444	118,919
Clear Secure Inc. Class A (b)	54,669	1,499,571
Clearwater Analytics Holdings, Inc. Class A (a)	14,030	263,063
Confluent, Inc. Class A (a)	7,700	171,248
Databricks, Inc. (Acquired 7/24/20-8/28/20, Cost \$24,732) (a) (c) (d) (f)	1,545	92,700

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Datadog, Inc. Class A (a)	17,007	\$ 1,250,014
Definitive Healthcare Corp. (a) (b)	8,670	95,283
The Descartes Systems Group, Inc. (a)	37,753	2,629,496
DoubleVerify Holdings, Inc. (a)	44,667	980,887
Doximity, Inc. Class A (a)	23,051	773,592
Duolingo, Inc. (a)	6,557	466,399
Fair Isaac Corp. (a)	3,200	1,915,456
Five9, Inc. (a)	11,598	787,040
Gusto, Inc. (Acquired 8/18/20-11/09/20, Cost \$204,799) (a) (c) (d) (f)	15,332	288,702
HashiCorp, Inc. Class A (a) (b)	21,075	576,190
HubSpot, Inc. (a)	8,968	2,592,918
Manhattan Associates, Inc. (a)	4,889	593,525
Monday.com Ltd. (a)	3,544	432,368
MongoDB, Inc. (a)	1,800	354,312
MSCI, Inc.	3,864	1,797,417
nCino, Inc. (a)	10,229	270,455
Outset Medical, Inc. (a)	22,338	576,767
Paycom Software, Inc. (a)	873	270,901
Paycor HCM, Inc. (a)	30,231	739,753
Phreesia, Inc. (a)	18,894	611,410
Privia Health Group, Inc. (a)	18,578	421,906
Procore Technologies, Inc. (a)	27,222	1,284,334
PTC, Inc. (a)	12,200	1,464,488
Roper Technologies, Inc.	9,029	3,901,341
SentinelOne Inc. Class A (a)	31,126	454,128
ServiceTitan, Inc. (Acquired 11/09/18-5/04/21, Cost \$29,280) (a) (c) (d) (f)	637	40,010
SS&C Technologies Holdings, Inc	15,265	794,696
Synopsys, Inc. (a)	7,231	2,308,786
Tanium, Inc., Class B (Acquired 9/24/20, Cost \$30,277) (a) (c) (d) (f)	2,657	11,717
Themis Solutions, Inc. (Acquired 4/14/21, Cost \$108,219) (a) (c) (d) (f)	4,820	85,892
Veeva Systems, Inc. Class A (a)	25,902	4,180,065
Vimeo, Inc. (a)	40,122	137,618
Workiva, Inc. (a)	11,560	970,693
		<u>50,410,774</u>
		<u>88,238,604</u>
Utilities — 2.7%		
Electric — 1.9%		
CenterPoint Energy, Inc.	34,316	1,029,137
FirstEnergy Corp.	95,630	4,010,722
IDACORP, Inc.	20,889	2,252,879
MGE Energy, Inc.	18,238	1,283,955
NorthWestern Corp.	6,828	405,173
PG&E Corp. (a)	262,900	4,274,754
PNM Resources, Inc.	10,057	490,681
		<u>13,747,301</u>
Gas — 0.5%		
Chesapeake Utilities Corp.	12,599	1,488,950
ONE Gas, Inc.	14,242	1,078,404
RGC Resources, Inc.	7,280	160,524
Southwest Gas Holdings, Inc.	13,602	841,692
		<u>3,569,570</u>

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)

	Number of Shares	Value
Water — 0.3%		
Artesian Resources Corp. Class A	3,159	\$ 185,054
California Water Service Group	15,530	941,739
SJW Group	10,076	818,071
		<u>1,944,864</u>
		<u>19,261,735</u>
TOTAL COMMON STOCK		
(Cost \$641,213,551)		<u>665,176,695</u>
PREFERRED STOCK — 2.0%		
Communications — 0.1%		
Internet — 0.1%		
1661, Inc., Series F (Acquired 5/28/21, Cost \$288,836) (a) (c) (d) (f)	49,629	91,317
Evolve Vacation Rental Network, Inc., Series 8 (Acquired 3/29/18, Cost \$44,816) (a) (c) (d) (f)	5,266	101,897
Evolve Vacation Rental Network, Inc., Series 9 (Acquired 5/29/20, Cost \$20,111) (a) (c) (d) (f)	3,470	67,145
Minted, Inc., Series E (Acquired 10/30/18, Cost \$113,257) (a) (c) (d) (f)	8,410	113,956
SecurityScorecard, Inc., Series E (Acquired 3/05/21, Cost \$262,495) (a) (c) (d) (f)	51,969	253,609
		<u>627,924</u>
Consumer, Cyclical — 0.1%		
Auto Manufacturers — 0.1%		
Nuro, Inc., Series C (Acquired 10/30/20-3/02/21, Cost \$282,254) (a) (c) (d) (f)	21,621	300,099
Nuro, Inc., Series D (Acquired 10/29/21, Cost \$252,025) (a) (c) (d) (f)	12,090	167,809
		<u>467,908</u>
Leisure Time — 0.0%		
Rad Power Bikes, Inc., Series C (Acquired 1/22/21, Cost \$69,082) (a) (c) (d) (f)	14,321	61,151
Rad Power Bikes, Inc., Series D (Acquired 9/16/21, Cost \$107,722) (a) (c) (d) (f)	11,240	47,995
		<u>109,146</u>
Retail — 0.0%		
OfferUp, Inc., Series F (Acquired 7/01/20, Cost \$9,217) (a) (c) (d) (f)	4,025	2,737
		<u>579,791</u>
Consumer, Non-cyclical — 0.9%		
Agriculture — 0.1%		
Farmer's Business Network, Inc., Series E (Acquired 2/11/19, Cost \$191,081) (a) (c) (d) (f)	8,198	410,146
Farmer's Business Network, Inc., Series F (Acquired 7/31/20, Cost \$172,258) (a) (c) (d) (f)	5,211	260,706
		<u>670,852</u>
Biotechnology — 0.3%		
Genesis Therapeutics, Inc., Series A (Acquired 11/24/20, Cost \$25,262) (a) (c) (d) (f)	4,946	25,262
Inscripta, Inc., Series E (Acquired 3/30/21, Cost \$148,812) (a) (c) (d) (f)	16,853	94,040
Insitro, Inc., Series B (Acquired 5/21/20, Cost \$34,456) (a) (c) (d) (f)	5,530	101,150
Insitro, Inc., Series C (Acquired 4/07/21, Cost \$62,208) (a) (c) (d) (f)	3,401	62,208
Kardium, Inc., Series D-5 (Acquired 11/29/18, Cost \$29,906) (a) (c) (d) (f)	30,866	31,355
Kardium, Inc., Series D-6 (Acquired 1/08/21, Cost \$145,349) (a) (c) (d) (f)	143,083	145,349
Laronde, Inc., Series B (Acquired 7/28/21, Cost \$109,340) (a) (c) (d) (f)	3,905	21,868
National Resilience, Inc., Series B (Acquired 10/23/20, Cost \$263,720) (a) (c) (d) (f)	19,306	1,172,453
National Resilience, Inc., Series C (Acquired 6/09/21, Cost \$315,045) (a) (c) (d) (f)	7,094	430,819
Tessera Therapeutics, Inc., Series C (Acquired 2/25/22, Cost \$34,499) (a) (c) (d) (f)	1,687	34,499
Treeline Biosciences, Inc., Series A (Acquired 4/09/21, Cost \$40,640) (a) (c) (d) (f)	5,192	40,640
		<u>2,159,643</u>

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Commercial Services — 0.1%		
Honor Technology, Inc., Series D (Acquired 10/16/20, Cost \$225,290) (a) (c) (d) (f)	93,556	\$ 215,179
Honor Technology, Inc., Series E (Acquired 9/29/21, Cost \$116,646) (a) (c) (d) (f)	36,897	84,863
Redwood Materials, Inc., Series C (Acquired 5/28/21, Cost \$214,074) (a) (c) (d) (f)	4,516	352,248
		<u>652,290</u>
Food — 0.1%		
Cava Group, Inc., Series E (Acquired 6/23/20-3/26/21, Cost \$475,884) (a) (c) (d) (f)	18,159	581,451
Cava Group, Inc., Series F (Acquired 3/26/21, Cost \$512,596) (a) (c) (d) (f)	13,622	436,177
		<u>1,017,628</u>
Health Care – Products — 0.1%		
Cleerly, Inc., Series C (Acquired 7/08/22, Cost \$200,211) (a) (c) (d) (f)	16,995	200,211
Ring Therapeutics, Inc., Series B (Acquired 4/12/21, Cost \$50,885) (a) (c) (d) (f)	5,531	50,885
Tempus Labs, Inc., Series D (Acquired 3/16/18, Cost \$21,326) (a) (c) (d) (f)	2,275	133,952
Tempus Labs, Inc., Series E (Acquired 8/23/18, Cost \$29,149) (a) (c) (d) (f)	1,741	105,226
Tempus Labs, Inc., Series F (Acquired 4/30/19, Cost \$17,059) (a) (c) (d) (f)	689	42,194
Tempus Labs, Inc., Series G (Acquired 2/06/20, Cost \$19,176) (a) (c) (d) (f)	500	30,990
Tempus Labs, Inc., Series G-2 (Acquired 11/19/20, Cost \$26,075) (a) (c) (d) (f)	455	25,576
		<u>589,034</u>
Health Care – Services — 0.1%		
Caris Life Sciences, Inc., Series C (Acquired 8/14/20, Cost \$125,312) (a) (c) (d) (f)	45,403	298,752
Caris Life Sciences, Inc., Series D (Acquired 5/11/21, Cost \$378,132) (a) (c) (d) (f)	46,683	307,174
		<u>605,926</u>

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Pharmaceuticals — 0.0%		
Haul Hub, Inc., Series B (Acquired 2/14/20-3/03/21, Cost \$108,854) (a) (c) (d) (f)	7,466	\$ 140,883
Haul Hub, Inc., Series C (Acquired 4/14/22, Cost \$43,061) (a) (c) (d) (f)	2,282	43,061
		<u>183,944</u>
		<u>5,879,317</u>
Financial — 0.2%		
Banks — 0.1%		
CRB Group, Inc., Series D (Acquired 1/28/22, Cost \$255,280) (a) (c) (d) (f)	2,428	<u>187,830</u>
Diversified Financial Services — 0.1%		
Color Health, Inc., Series D (Acquired 12/17/20, Cost \$43,490) (a) (c) (d) (f)	1,155	47,239
Color Health, Inc., Series D-1 (Acquired 1/13/20, Cost \$56,632) (a) (c) (d) (f)	2,655	108,590
Color Health, Inc., Series E (Acquired 10/26/21, Cost \$15,095) (a) (c) (d) (f)	151	6,176
Convoy, Inc., Series C (Acquired 9/14/18, Cost \$127,740) (a) (c) (d) (f)	17,990	93,188
Convoy, Inc., Series D (Acquired 10/30/19, Cost \$417,858) (a) (c) (d) (f)	30,861	159,860
Convoy, Inc., Series E (Acquired 9/30/21, Cost \$72,706) (a) (c) (d) (f)	4,407	22,828
Stash Financial, Inc., Series F (Acquired 4/24/20, Cost \$126,801) (a) (c) (d) (f)	5,060	177,151
Stash Financial, Inc., Series G (Acquired 1/26/21, Cost \$174,908) (a) (c) (d) (f)	4,667	163,392
		<u>778,424</u>
Insurance — 0.0%		
Go Maps, Inc., Series B-1 (Acquired 5/15/19-7/29/20, Cost \$9,665) (a) (c) (d) (f)	755	<u>7,537</u>
Investment Companies — 0.0%		
Maplebear, Inc., Series E (Acquired 11/19/21-12/01/21, Cost \$348,680) (a) (c) (d) (f)	2,900	140,592
Maplebear, Inc., Series I (Acquired 2/26/21, Cost \$58,500) (a) (c) (d) (f)	468	22,689
		<u>163,281</u>
		<u>1,137,072</u>
Industrial — 0.2%		
Aerospace & Defense — 0.0%		
ABL Space Systems Company, Series B (Acquired 3/24/21, Cost \$328,985) (a) (c) (d) (f)	7,305	<u>306,226</u>

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
Electrical Components & Equipment — 0.1%		
Cellink, Inc., Series D (Acquired 1/20/22, Cost \$223,836) (a) (c) (d) (f)	10,749	\$ 223,836
Sila Nanotechnologies, Inc., Series F (Acquired 1/07/21, Cost \$505,509) (a) (c) (d) (f)	12,248	381,770
		<u>605,606</u>
Electronics — 0.1%		
Sartorius AG 0.0340%	1,954	772,720
		<u>1,684,552</u>
Technology — 0.6%		
Computers — 0.1%		
Coalition, Inc., Series E (Acquired 9/07/21, Cost \$253,711) (a) (c) (d) (f)	15,355	330,667
Mesosphere, Inc., Series D (Acquired 5/04/18, Cost \$72,584) (a) (c) (d) (f)	6,566	4,071
		<u>334,738</u>
Software — 0.5%		
Checkr, Inc., Series C (Acquired 4/10/18, Cost \$106,628) (a) (c) (d) (f)	23,433	180,434
Checkr, Inc., Series D (Acquired 9/06/19, Cost \$308,786) (a) (c) (d) (f)	30,627	235,828
Databricks, Inc., Series F (Acquired 10/22/19, Cost \$104,923) (a) (c) (d) (f)	7,329	439,740
Databricks, Inc., Series G (Acquired 2/01/21, Cost \$128,414) (a) (c) (d) (f)	849	50,940
Databricks, Inc., Series H (Acquired 8/31/21, Cost \$121,028) (a) (c) (d) (f)	1,563	93,780
DTX Company, Series A-1 (Acquired 4/02/22, Cost \$31,212) (a) (c) (d) (f)	17,154	31,212
Eikon Therapeutics, Inc., Series B (Acquired 3/12/21, Cost \$89,186) (a) (c) (d) (f)	5,042	89,186
Epirus, Inc., Series C-2 (Acquired 1/28/21, Cost \$324,592) (a) (c) (d) (f)	58,131	324,592
Flexe, Inc., Series C (Acquired 11/18/20, Cost \$134,849) (a) (c) (d) (f)	11,083	226,033
Flexe, Inc., Series D (Acquired 7/04/22, Cost \$73,849) (a) (c) (d) (f)	3,621	73,849
Gusto, Inc., Series B (Acquired 8/18/20, Cost \$49,238) (a) (c) (d) (f)	3,644	68,617
Gusto, Inc., Series B-2 (Acquired 8/18/20, Cost \$91,936) (a) (c) (d) (f)	6,804	128,119
Gusto, Inc., Series C (Acquired 7/16/18, Cost \$84,209) (a) (c) (d) (f)	11,076	208,561
Gusto, Inc., Series D (Acquired 7/16/19, Cost \$187,638) (a) (c) (d) (f)	14,095	265,409
JetClosing, Inc., Series A (Acquired 5/25/18, Cost \$22,781) (a) (c) (d) (f)	11,678	—
JetClosing, Inc., Series B-1 (Acquired 7/13/20-2/25/21, Cost \$36,276) (a) (c) (d) (f)	27,130	—
JetClosing, Inc., Series B-2 (Acquired 2/06/20, Cost \$5,769) (a) (c) (d) (f)	5,185	—

***MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)***

	Number of Shares	Value
KoBold Metals, Inc., Series B-1 (Acquired 1/10/22, Cost \$244,807) (a) (c) (d) (f)	8,931	\$ 244,807
Seismic Software, Inc., Series E (Acquired 12/13/18, Cost \$117,981) (a) (c) (d) (f)	18,715	193,700
Seismic Software, Inc., Series F (Acquired 9/25/20-3/24/21, Cost \$18,592) (a) (c) (d) (f)	2,115	21,890
ServiceTitan, Inc., Series A-1 (Acquired 11/09/18, Cost \$263) (a) (c) (d) (f)	10	628
ServiceTitan, Inc., Series D (Acquired 11/09/18, Cost \$124,743) (a) (c) (d) (f)	4,744	297,971
ServiceTitan, Inc., Series E (Acquired 4/23/20, Cost \$7,435) (a) (c) (d) (f)	220	13,818
ServiceTitan, Inc., Series F (Acquired 3/25/21, Cost \$25,650) (a) (c) (d) (f)	239	15,012
Socure, Inc., Series A (Acquired 12/22/21, Cost \$75,555) (a) (c) (d) (f)	4,702	35,171
Socure, Inc., Series A-1 (Acquired 12/22/21, Cost \$62,025) (a) (c) (d) (f)	3,860	28,873
Socure, Inc., Series B (Acquired 12/22/21, Cost \$1,109) (a) (c) (d) (f)	69	516
Socure, Inc., Series E (Acquired 10/27/21, Cost \$143,750) (a) (c) (d) (f)	8,946	66,916
Themis Solutions, Inc., Series AA (Acquired 4/14/21, Cost \$24,473) (a) (c) (d) (f)	1,090	19,424
Themis Solutions, Inc., Series AB (Acquired 4/14/21, Cost \$2,694) (a) (c) (d) (f)	120	2,138
Themis Solutions, Inc., Series B (Acquired 4/14/21, Cost \$2,694) (a) (c) (d) (f)	120	2,138
Themis Solutions, Inc., Series E (Acquired 4/14/21, Cost \$309,164) (a) (c) (d) (f)	13,770	245,381
		<u>3,604,683</u>
		<u>3,939,421</u>
TOTAL PREFERRED STOCK		
(Cost \$12,079,978)		<u>13,848,077</u>
TOTAL EQUITIES		
(Cost \$653,293,529)		<u>679,024,772</u>
RIGHTS — 0.0%		
Consumer, Non-cyclical — 0.0%		
Pharmaceuticals — 0.0%		
Progenic Pharmaceuticals, Inc., CVR (a) (d) (f)	25,104	<u>28,892</u>
TOTAL RIGHTS		
(Cost \$0)		<u>28,892</u>
WARRANTS — 0.0%		
Communications — 0.0%		
Advertising — 0.0%		
Advantage Solutions, Inc., Expires 10/28/25 (a)	3,668	<u>440</u>
Consumer, Non-cyclical — 0.0%		
Pharmaceuticals — 0.0%		
EQRx, Inc., Expires 12/17/2026 (a)	1,166	<u>312</u>
Diversified — 0.0%		
Holding Company – Diversified — 0.0%		
Big Sky Growth Partners, Inc. (a) (d)	8,141	2
Bluescape Opportunities Acquisition Corp., Expires 1/31/2026 (a)	5,835	<u>934</u>
		<u>936</u>

**MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund — Portfolio of Investments
(Continued)**

	Number of Shares	Value
Financial — 0.0%		
Banks — 0.0%		
Dogwood State Bank (Acquired 5/06/19, Cost \$0) (a) (c) (d) (f)	800	\$ 6,456
Diversified Financial Services — 0.0%		
Grasshopper Bancorp, Inc. (Acquired 10/15/18, Cost \$0) (a) (c) (d) (f)	1,432	1,031
Insurance — 0.0%		
Hagerty Group, LLC. (Acquired 8/18/21, Cost \$4,451) (a) (c) (d)	3,040	6,810
		14,297
Industrial — 0.0%		
Aerospace & Defense — 0.0%		
Triumph Group, Inc. Expires 12/19/2023 (a)	18,759	12,569
TOTAL WARRANTS (Cost \$11,709)		28,554
MUTUAL FUNDS — 0.5%		
Diversified Financial Services — 0.5%		
State Street Navigator Securities Lending Government Money Market Portfolio (g)	3,755,790	3,755,790
TOTAL MUTUAL FUNDS (Cost \$3,755,790)		3,755,790
TOTAL LONG-TERM INVESTMENTS (Cost \$657,061,028)		682,838,008
SHORT-TERM INVESTMENTS — 4.0%		
Mutual Fund — 3.9%		
T. Rowe Price Government Reserve Investment Fund	27,319,435	27,319,435
	Principal Amount	
Repurchase Agreement — 0.1%		
Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (h)	\$ 991,000	991,000
TOTAL SHORT-TERM INVESTMENTS (Cost \$28,310,435)		28,310,435
TOTAL INVESTMENTS — 101.2% (Cost \$685,371,463) (i)		711,148,443
Other Assets/(Liabilities) — (1.2)%		(8,315,086)
NET ASSETS — 100.0%		\$ 702,833,357

Abbreviation Legend

ADR American Depositary Receipt

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Non-income producing security.

(b) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$8,847,003 or

- 1.26% of net assets. The Fund received \$5,363,151 of non-cash collateral (U.S. Treasury and/or Agency obligations) related to securities lending activity. This amount is not reflected on the Portfolio of Investments. (*Note 2*).
- (c) Restricted security. Certain securities are restricted as to resale. At December 31, 2022, these securities amounted to a value of \$14,811,907 or 2.11% of net assets. The Fund generally bears the costs, if any, associated with the disposition of restricted securities.
 - (d) This security is fair valued in good faith in accordance with procedures approved by the Board of Trustees. At December 31, 2022, these securities amounted to a value of \$14,840,801 or 2.11% of net assets.
 - (e) Security is exempt from registration under Regulation S or Rule 144A of the Securities Act of 1933. These securities are considered restricted and may be resold in transactions exempt from registration. At December 31, 2022, the aggregate market value of these securities amounted to \$165,170 or 0.02% of net assets.
 - (f) Investment is valued using significant unobservable inputs.
 - (g) Represents investment of security lending cash collateral. (*Note 2*).
 - (h) Maturity value of \$991,141. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$1,010,893.
 - (i) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund — Portfolio of Investments

December 31, 2022 (Unaudited)

	Principal Amount	Value
BONDS & NOTES — 99.3%		
U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (a) — 2.1%		
Collateralized Mortgage Obligations — 0.7%		
Government National Mortgage Association		
Series 2020-7, Class KE, 2.500% 1/20/50	\$ 176,707	\$ 156,704
Series 2016-121, Class JF, 1 mo. USD LIBOR + 0.400% 4.753% FRN 9/20/46	177,228	173,351
Series 2019-78, Class FB, 1 mo. USD LIBOR + 0.400% 4.753% FRN 6/20/49	98,519	96,268
Series 2019-112, Class GF, 1 mo. USD LIBOR + 0.430% 4.783% FRN 9/20/49	91,231	89,219
Series 2019-103, Class CF, 1 mo. USD LIBOR + 0.450% 4.803% FRN 8/20/49	190,217	186,324
Series 2019-111, Class FB, 1 mo. USD LIBOR + 0.450% 4.803% FRN 9/20/49	71,763	70,598
Series 2019-125, Class DF, 1 mo. USD LIBOR + 0.450% 4.803% FRN 10/20/49	147,598	144,650
		<u>917,114</u>
Pass-Through Securities — 1.4%		
Government National Mortgage Association II		
Pool #MA7534 2.500% 8/20/51	91,364	79,556
Pool #MA7705 2.500% 11/20/51	174,140	151,402
Pool #MA7767 2.500% 12/20/51	526,323	457,436
Pool #MA4484 3.000% 6/20/32	130,727	122,995
Pool #MA6381 3.000% 1/20/35	68,199	64,079
Pool #MA6630 3.000% 5/20/35	31,621	29,711
Pool #MA6209 3.000% 10/20/49	17,565	15,348
Pool #MA6399 3.000% 1/20/50	39,506	34,520
Pool #MA6464 3.000% 2/20/50	90,382	78,976
Pool #MA6531 3.000% 3/20/50	55,456	48,458
Pool #MA7650 3.000% 10/20/51	200,444	179,658
Pool #BQ0937 3.500% 9/20/49	64,119	59,319
Pool #BQ7205 3.500% 10/20/49	35,338	32,670
Pool #BS3713 3.500% 1/20/50	123,620	114,365
Pool #BS3771 3.500% 2/20/50	88,670	81,977
Pool #MA4588 4.500% 7/20/47	107,151	106,170
Pool #MA4781 5.000% 10/20/47	48,334	49,084
Pool #MA4840 5.000% 11/20/47	38,091	38,682
Pool #MA5653 5.000% 12/20/48	117,638	118,360
Pool #MA5820 5.500% 3/20/49	15,846	16,259
		<u>1,879,025</u>
TOTAL U.S. GOVERNMENT AGENCY OBLIGATIONS AND INSTRUMENTALITIES (Cost \$3,090,531)		<u>2,796,139</u>

MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund — Portfolio of Investments (Continued)

	Principal Amount	Value
U.S. TREASURY OBLIGATIONS — 97.2%		
U.S. Treasury Bonds & Notes — 97.2%		
U.S. Treasury Bond		
1.125% 5/15/40	\$ 3,490,000	\$ 2,201,447
1.125% 8/15/40	5,170,000	3,237,891
1.250% 5/15/50	659,300	358,994
1.375% 11/15/40	6,110,000	4,000,821
1.375% 8/15/50	7,400,000	4,165,095
1.625% 11/15/50	3,580,000	2,156,296
1.750% 8/15/41	6,940,000	4,786,475
1.875% 2/15/41	7,480,000	5,322,154
1.875% 2/15/51	5,855,000	3,764,747
1.875% 11/15/51	6,760,000	4,331,267
2.000% 11/15/41 (b)	7,760,000	5,584,599
2.000% 2/15/50	4,050,000	2,705,906
2.000% 8/15/51	3,700,000	2,450,103
2.250% 5/15/41	7,690,000	5,820,526
2.250% 8/15/46	2,505,000	1,790,990
2.250% 8/15/49	2,550,000	1,813,415
2.250% 2/15/52	13,760,000	9,678,194
2.375% 2/15/42	21,220,000	16,318,776
2.375% 11/15/49	2,220,000	1,624,239
2.375% 5/15/51	2,440,000	1,769,188
2.500% 2/15/46	1,700,000	1,283,164
2.875% 11/15/46	1,700,000	1,374,527
2.875% 5/15/49	2,480,000	2,015,388
2.875% 5/15/52	3,985,000	3,228,689
3.000% 11/15/45	850,000	705,134
3.000% 2/15/47	1,560,000	1,288,409
3.000% 5/15/47	1,200,000	990,961
3.000% 8/15/48	2,330,000	1,932,014
3.000% 2/15/49	2,480,000	2,063,488
3.000% 8/15/52	5,555,000	4,633,611
3.125% 5/15/48	6,425,000	5,449,460
3.250% 5/15/42	1,945,000	1,718,170
3.375% 8/15/42	8,330,000	7,497,783
3.375% 11/15/48	2,330,000	2,075,812
4.000% 11/15/42 (c)	5,080,000	5,010,262
4.000% 11/15/52	2,633,700	2,663,329
U.S. Treasury Note		
4.125% 11/15/32	705,000	721,343
		<u>128,532,667</u>
TOTAL U.S. TREASURY OBLIGATIONS		
(Cost \$171,101,804)		<u>128,532,667</u>
TOTAL BONDS & NOTES		
(Cost \$174,192,335)		<u>131,328,806</u>

	Number of Shares
MUTUAL FUNDS — 3.9%	
Diversified Financial Services — 3.9%	

State Street Navigator Securities Lending Government Money Market Portfolio (d)	5,137,150	<u>5,137,150</u>
TOTAL MUTUAL FUNDS (Cost \$5,137,150)		<u>5,137,150</u>
TOTAL LONG-TERM INVESTMENTS (Cost \$179,329,485)		<u>136,465,956</u>
SHORT-TERM INVESTMENTS — 0.1% Mutual Fund — 0.0% T. Rowe Price Government Reserve Investment Fund	65	<u>65</u>
	<u>Principal Amount</u>	
Repurchase Agreement — 0.1% Fixed Income Clearing Corp., Repurchase Agreement, dated 12/30/22, 1.280%, due 1/03/23 (e)	\$ 102,017	<u>102,017</u>

MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund — Portfolio of Investments (Continued)

TOTAL SHORT-TERM INVESTMENTS (Cost \$102,082)	102,082
TOTAL INVESTMENTS — 103.3% (Cost \$179,431,567) (f)	136,568,038
Other Assets/(Liabilities) — (3.3)%	(4,307,885)
NET ASSETS — 100.0%	\$ 132,260,153

Abbreviation Legend

FRN Floating Rate Note

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

- (a) May contain securities that are issued by a U.S. Government Agency, but are unsecured and are not guaranteed by a U.S. Government Agency.
- (b) All or a portion of this security is pledged/held as collateral for open derivatives.
- (c) Denotes all or a portion of security on loan. The total value of securities on loan as of December 31, 2022, was \$5,036,067 or 3.81% of net assets. *(Note 2)*.
- (d) Represents investment of security lending cash collateral. *(Note 2)*.
- (e) Maturity value of \$102,031. Collateralized by U.S. Government Agency obligations with a rate of 0.000%, maturity date of 6/29/23, and an aggregate market value, including accrued interest, of \$104,060.
- (f) See Note 3 for aggregate cost for federal tax purposes.

Futures contracts

	Expiration Date	Number of Contracts	Notional Amount	Value/ Net Unrealized Appreciation/ (Depreciation)
Short				
U.S. Treasury Ultra 10 Year	3/22/23	9	\$ (1,085,537)	<u>\$ 21,006</u>

MassMutual Select T. Rowe Price Retirement Balanced Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 38.3%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	1,987,029	\$ 18,777,421
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	2,402,087	25,534,182
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	282,992	3,081,787
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	827,910	9,098,733
MM S&P 500 Index Fund, Class I (a)	489,988	6,369,842
		<u>62,861,965</u>
Fixed Income Funds — 61.7%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	4,136,037	34,080,943
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	973,396	6,920,845
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	3,606,257	32,564,504
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	978,762	5,207,011
State Street Institutional U.S. Government Money Market Fund	6,114,279	6,114,279
T. Rowe Price Dynamic Global Bond Fund, Class I	798,412	6,802,467
T. Rowe Price Institutional Floating Rate Fund	355,703	3,265,358
T. Rowe Price Institutional High Yield Fund	837,287	6,162,432
		<u>101,117,839</u>
TOTAL MUTUAL FUNDS		
(Cost \$195,710,617)		<u>163,979,804</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$195,710,617)		<u>163,979,804</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$195,710,617) (b)		163,979,804
Other Assets/(Liabilities) — (0.0)%		<u>(28,135)</u>
NET ASSETS — 100.0%		<u>\$ 163,951,669</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2005 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 99.9%		
Equity Funds — 41.3%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	322,751	\$ 3,050,000
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	387,633	4,120,543
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	46,979	511,600
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	133,529	1,467,482
MM S&P 500 Index Fund, Class I (a)	78,677	1,022,801
		<u>10,172,426</u>
Fixed Income Funds — 58.6%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	620,142	5,109,968
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	141,959	1,009,326
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	456,390	4,121,205
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	153,365	815,903
State Street Institutional U.S. Government Money Market Fund	1,003,276	1,003,276
T. Rowe Price Dynamic Global Bond Fund, Class I	119,036	1,014,183
T. Rowe Price Institutional Floating Rate Fund	52,784	484,554
T. Rowe Price Institutional High Yield Fund	122,896	904,517
		<u>14,462,932</u>
TOTAL MUTUAL FUNDS		
(Cost \$29,807,096)		<u>24,635,358</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$29,807,096)		<u>24,635,358</u>
TOTAL INVESTMENTS — 99.9%		
(Cost \$29,807,096) (b)		24,635,358
Other Assets/(Liabilities) — 0.1%		<u>24,011</u>
NET ASSETS — 100.0%		<u>\$ 24,659,369</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2010 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 44.8%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	1,468,971	\$ 13,881,773
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	1,754,443	18,649,725
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	212,005	2,308,730
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	605,968	6,659,585
MM S&P 500 Index Fund, Class I (a)	353,491	4,595,389
		<u>46,095,202</u>
Fixed Income Funds — 55.2%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	2,500,234	20,601,925
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	563,020	4,003,073
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	1,669,698	15,077,373
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	636,406	3,385,682
State Street Institutional U.S. Government Money Market Fund	4,137,838	4,137,838
T. Rowe Price Dynamic Global Bond Fund, Class I	478,757	4,079,012
T. Rowe Price Institutional Floating Rate Fund	211,572	1,942,227
T. Rowe Price Institutional High Yield Fund	490,753	3,611,940
		<u>56,839,070</u>
TOTAL MUTUAL FUNDS		
(Cost \$124,000,819)		<u>102,934,272</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$124,000,819)		<u>102,934,272</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$124,000,819) (b)		102,934,272
Other Assets/(Liabilities) — (0.0)%		<u>(9,791)</u>
NET ASSETS — 100.0%		<u>\$ 102,924,481</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2015 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 47.8%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	1,741,321	\$ 16,455,488
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	2,072,655	22,032,319
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	251,801	2,742,112
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	718,794	7,899,548
MM S&P 500 Index Fund, Class I (a)	407,934	5,303,147
		<u>54,432,614</u>
Fixed Income Funds — 52.2%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	2,685,581	22,129,186
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	590,734	4,200,121
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	1,601,635	14,462,767
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	701,448	3,731,706
State Street Institutional U.S. Government Money Market Fund	4,709,296	4,709,296
T. Rowe Price Dynamic Global Bond Fund, Class I	515,307	4,390,418
T. Rowe Price Institutional Floating Rate Fund	225,524	2,070,312
T. Rowe Price Institutional High Yield Fund	523,143	3,850,330
		<u>59,544,136</u>
TOTAL MUTUAL FUNDS		
(Cost \$136,054,771)		<u>113,976,750</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$136,054,771)		<u>113,976,750</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$136,054,771) (b)		113,976,750
Other Assets/(Liabilities) — (0.0)%		<u>(4,914)</u>
NET ASSETS — 100.0%		<u>\$ 113,971,836</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2020 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 51.3%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	8,576,072	\$ 81,043,884
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	10,188,195	108,300,514
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	1,205,750	13,130,619
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	3,557,841	39,100,672
MM S&P 500 Index Fund, Class I (a)	1,992,554	25,903,208
		<u>267,478,897</u>
Fixed Income Funds — 48.7%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	11,837,429	97,540,419
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	2,553,303	18,153,983
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	6,187,532	55,873,410
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	3,198,592	17,016,512
State Street Institutional U.S. Government Money Market Fund	20,701,770	20,701,770
T. Rowe Price Dynamic Global Bond Fund, Class I	2,250,081	19,170,694
T. Rowe Price Institutional Floating Rate Fund	974,042	8,941,706
T. Rowe Price Institutional High Yield Fund	2,258,973	16,626,038
		<u>254,024,532</u>
TOTAL MUTUAL FUNDS		
(Cost \$617,149,598)		<u>521,503,429</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$617,149,598)		<u>521,503,429</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$617,149,598) (b)		521,503,429
Other Assets/(Liabilities) — (0.0)%		<u>(210,883)</u>
NET ASSETS — 100.0%		<u>\$ 521,292,546</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2025 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 58.3%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	10,071,742	\$ 95,177,962
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	12,205,070	129,739,890
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	1,450,543	15,796,409
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	4,189,967	46,047,739
MM S&P 500 Index Fund, Class I (a)	2,336,909	30,379,823
		<u>317,141,823</u>
Fixed Income Funds — 41.7%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	10,919,948	89,980,374
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	2,163,352	15,381,429
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	4,245,170	38,333,887
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	3,491,171	18,573,028
State Street Institutional U.S. Government Money Market Fund	24,162,480	24,162,480
T. Rowe Price Dynamic Global Bond Fund, Class I	2,089,046	17,798,674
T. Rowe Price Institutional Floating Rate Fund	875,509	8,037,173
T. Rowe Price Institutional High Yield Fund	1,959,485	14,421,810
		<u>226,688,855</u>
TOTAL MUTUAL FUNDS		
(Cost \$647,686,170)		<u>543,830,678</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$647,686,170)		<u>543,830,678</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$647,686,170) (b)		543,830,678
Other Assets/(Liabilities) — (0.0)%		<u>(201,689)</u>
NET ASSETS — 100.0%		<u>\$ 543,628,989</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2030 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 69.3%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	26,990,972	\$ 255,064,689
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	32,731,698	347,937,955
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	3,884,146	42,298,345
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	11,403,369	125,323,029
MM S&P 500 Index Fund, Class I	6,182,671	80,374,728
		<u>850,998,746</u>
Fixed Income Funds — 30.7%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	20,121,787	165,803,528
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	3,230,229	22,966,929
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	2,773,101	25,041,105
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	7,943,866	42,261,369
State Street Institutional U.S. Government Money Market Fund	53,241,436	53,241,436
T. Rowe Price Dynamic Global Bond Fund, Class I	3,755,768	31,999,141
T. Rowe Price Institutional Floating Rate Fund	1,432,892	13,153,947
T. Rowe Price Institutional High Yield Fund	3,087,247	22,722,137
		<u>377,189,592</u>
TOTAL MUTUAL FUNDS		
(Cost \$1,421,983,351)		<u>1,228,188,338</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$1,421,983,351)		<u>1,228,188,338</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$1,421,983,351) (b)		1,228,188,338
Other Assets/(Liabilities) — (0.0)%		<u>(586,461)</u>
NET ASSETS — 100.0%		<u>\$ 1,227,601,877</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2035 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 80.3%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	16,903,666	\$ 159,739,648
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	20,272,879	215,500,704
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	2,405,836	26,199,552
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	7,024,038	77,194,183
MM S&P 500 Index Fund, Class I (a)	4,010,841	52,140,938
		<u>530,775,025</u>
Fixed Income Funds — 19.7%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	6,980,208	57,516,916
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	901,672	6,410,891
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	5,938	53,617
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	3,351,052	17,827,595
State Street Institutional U.S. Government Money Market Fund	26,730,975	26,730,975
T. Rowe Price Dynamic Global Bond Fund, Class I	1,305,601	11,123,722
T. Rowe Price Institutional Floating Rate Fund	413,921	3,799,795
T. Rowe Price Institutional High Yield Fund	914,052	6,727,423
		<u>130,190,934</u>
TOTAL MUTUAL FUNDS		
(Cost \$772,649,953)		<u>660,965,959</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$772,649,953)		<u>660,965,959</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$772,649,953) (b)		660,965,959
Other Assets/(Liabilities) — (0.0)%		<u>(283,804)</u>
NET ASSETS — 100.0%		<u>\$ 660,682,155</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2040 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 89.5%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	31,512,044	\$ 297,788,814
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	37,715,438	400,915,103
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	4,485,169	48,843,495
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	13,127,927	144,275,913
MM S&P 500 Index Fund, Class I (a)	7,648,085	99,425,110
		<u>991,248,435</u>
Fixed Income Funds — 10.6%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	5,452,220	44,926,296
MassMutual Select T. Rowe Price Emerging Markets Bond Fund, Class I (a)	364,274	2,589,990
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	26,617	240,351
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	3,117,352	16,584,315
State Street Institutional U.S. Government Money Market Fund	38,536,538	38,536,538
T. Rowe Price Dynamic Global Bond Fund, Class I	966,641	8,235,778
T. Rowe Price Institutional Floating Rate Fund	165,044	1,515,108
T. Rowe Price Institutional High Yield Fund	646,517	4,758,362
		<u>117,386,738</u>
TOTAL MUTUAL FUNDS		
(Cost \$1,279,708,914)		<u>1,108,635,173</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$1,279,708,914)		<u>1,108,635,173</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$1,279,708,914) (b)		1,108,635,173
Other Assets/(Liabilities) — (0.1)%		<u>(558,176)</u>
NET ASSETS — 100.0%		<u>\$ 1,108,076,997</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2045 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 94.5%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	15,788,631	\$ 149,202,564
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	18,726,964	199,067,626
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	2,228,455	24,267,872
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	6,557,882	72,071,125
MM S&P 500 Index Fund, Class I (a)	3,969,522	51,603,789
		<u>496,212,976</u>
Fixed Income Funds — 5.5%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	1,004,638	8,278,217
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	7,470	67,454
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	667,986	3,553,686
State Street Institutional U.S. Government Money Market Fund	15,972,983	15,972,983
T. Rowe Price Dynamic Global Bond Fund, Class I	154,708	1,318,112
		<u>29,190,452</u>
TOTAL MUTUAL FUNDS		
(Cost \$614,718,614)		<u>525,403,428</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$614,718,614)		<u>525,403,428</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$614,718,614) (b)		525,403,428
Other Assets/(Liabilities) — (0.0)%		<u>(227,096)</u>
NET ASSETS — 100.0%		<u>\$ 525,176,332</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2050 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.1%		
Equity Funds — 96.1%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	23,411,269	\$ 221,236,493
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	27,815,811	295,682,073
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	3,292,345	35,853,641
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	9,689,133	106,483,569
MM S&P 500 Index Fund, Class I (a)	5,875,963	76,387,513
		<u>735,643,289</u>
Fixed Income Funds — 4.0%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	636,561	5,245,263
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	11,669	105,372
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	381,616	2,030,197
State Street Institutional U.S. Government Money Market Fund	22,363,438	22,363,438
T. Rowe Price Dynamic Global Bond Fund, Class I	107,121	912,672
		<u>30,656,942</u>
TOTAL MUTUAL FUNDS		
(Cost \$889,224,150)		<u>766,300,231</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$889,224,150)		<u>766,300,231</u>
TOTAL INVESTMENTS — 100.1%		
(Cost \$889,224,150) (b)		766,300,231
Other Assets/(Liabilities) — (0.1)%		<u>(386,396)</u>
NET ASSETS — 100.0%		<u>\$ 765,913,835</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2055 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 96.5%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	10,025,113	\$ 94,737,321
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	11,966,895	127,208,099
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	1,421,393	15,478,970
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	4,181,855	45,958,583
MM S&P 500 Index Fund, Class I (a)	2,574,138	33,463,794
		<u>316,846,767</u>
Fixed Income Funds — 3.5%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	267,371	2,203,133
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	2,508	22,648
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	166,093	883,615
State Street Institutional U.S. Government Money Market Fund	8,133,843	8,133,843
T. Rowe Price Dynamic Global Bond Fund, Class I	47,610	405,641
		<u>11,648,880</u>
TOTAL MUTUAL FUNDS		
(Cost \$386,903,045)		<u>328,495,647</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$386,903,045)		<u>328,495,647</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$386,903,045) (b)		328,495,647
Other Assets/(Liabilities) — (0.0)%		<u>(134,292)</u>
NET ASSETS — 100.0%		<u>\$ 328,361,355</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

MassMutual Select T. Rowe Price Retirement 2060 Fund — Portfolio of Investments**December 31, 2022 (Unaudited)**

	Number of Shares	Value
MUTUAL FUNDS — 100.0%		
Equity Funds — 96.5%		
MassMutual Select T. Rowe Price International Equity Fund, Class I (a)	4,653,316	\$ 43,973,838
MassMutual Select T. Rowe Price Large Cap Blend Fund, Class I (a)	5,542,585	58,917,681
MassMutual Select T. Rowe Price Real Assets Fund, Class I (a)	661,243	7,200,938
MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund, Class I (a)	1,939,394	21,313,937
MM S&P 500 Index Fund, Class I (a)	1,189,206	15,459,673
		<u>146,866,067</u>
Fixed Income Funds — 3.5%		
MassMutual Select T. Rowe Price Bond Asset Fund, Class I (a)	120,342	991,619
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund, Class I (a)	1,207	10,898
MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund, Class I (a)	76,344	406,151
State Street Institutional U.S. Government Money Market Fund	3,835,806	3,835,806
T. Rowe Price Dynamic Global Bond Fund, Class I	20,865	177,769
		<u>5,422,243</u>
TOTAL MUTUAL FUNDS		
(Cost \$183,326,673)		<u>152,288,310</u>
TOTAL LONG-TERM INVESTMENTS		
(Cost \$183,326,673)		<u>152,288,310</u>
TOTAL INVESTMENTS — 100.0%		
(Cost \$183,326,673) (b)		152,288,310
Other Assets/(Liabilities) — (0.0)%		<u>(50,388)</u>
NET ASSETS — 100.0%		<u>\$ 152,237,922</u>

Notes to Portfolio of Investments

Percentages are stated as a percent of net assets.

(a) Affiliated issuer.

(b) See Note 3 for aggregate cost for federal tax purposes.

Notes to Portfolio of Investments (Unaudited)

1. The Funds

MassMutual Select Funds (the “Trust”) is registered under the Investment Company Act of 1940, as amended, as an open-end management investment company. The Trust is organized under the laws of the Commonwealth of Massachusetts as a Massachusetts business trust pursuant to an Agreement and Declaration of Trust dated May 28, 1993, as amended and restated as of November 21, 2011, as it may be further amended from time to time. As of December 31, 2022, the Trust consists of the following series (each individually referred to as a “Fund” or collectively as the “Funds”):

MassMutual Total Return Bond Fund (“Total Return Bond Fund”)
MassMutual Strategic Bond Fund (“Strategic Bond Fund”)
MassMutual Diversified Value Fund (“Diversified Value Fund”)
MassMutual Fundamental Value Fund (“Fundamental Value Fund”)
MM S&P 500® Index Fund (“S&P 500 Index Fund”)
MassMutual Equity Opportunities Fund (“Equity Opportunities Fund”)
MassMutual Fundamental Growth Fund (“Fundamental Growth Fund”)
MassMutual Blue Chip Growth Fund (“Blue Chip Growth Fund”)
MassMutual Growth Opportunities Fund (“Growth Opportunities Fund”)
MassMutual Mid Cap Value Fund (“Mid Cap Value Fund”)
MassMutual Small Cap Value Equity Fund (“Small Cap Value Equity Fund”)
MassMutual Small Company Value Fund (“Small Company Value Fund”)
MassMutual Mid Cap Growth Fund (“Mid Cap Growth Fund”)
MassMutual Small Cap Growth Equity Fund (“Small Cap Growth Equity Fund”)
MassMutual Overseas Fund (“Overseas Fund”)
MassMutual Select T. Rowe Price International Equity Fund (“MM Select T. Rowe Price International Equity Fund”)
MassMutual 20/80 Allocation Fund (“20/80 Allocation Fund”)
MassMutual 40/60 Allocation Fund (“40/60 Allocation Fund”)
MassMutual 60/40 Allocation Fund (“60/40 Allocation Fund”)
MassMutual 80/20 Allocation Fund (“80/20 Allocation Fund”)
MassMutual RetireSMARTSM by JPMorgan In Retirement Fund (“MM RetireSMART by JPMorgan In Retirement Fund”)
MassMutual RetireSMARTSM by JPMorgan 2020 Fund (“MM RetireSMART by JPMorgan 2020 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2025 Fund (“MM RetireSMART by JPMorgan 2025 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2030 Fund (“MM RetireSMART by JPMorgan 2030 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2035 Fund (“MM RetireSMART by JPMorgan 2035 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2040 Fund (“MM RetireSMART by JPMorgan 2040 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2045 Fund (“MM RetireSMART by JPMorgan 2045 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2050 Fund (“MM RetireSMART by JPMorgan 2050 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2055 Fund (“MM RetireSMART by JPMorgan 2055 Fund”)
MassMutual RetireSMARTSM by JPMorgan 2060 Fund (“MM RetireSMART by JPMorgan 2060 Fund”)
MM Equity Asset Fund (“Equity Asset Fund”)
MassMutual Select T. Rowe Price Bond Asset Fund (“MM Select T. Rowe Price Bond Asset Fund”)
MassMutual Select T. Rowe Price Emerging Markets Bond Fund (“MM Select T. Rowe Price Emerging Markets Bond Fund”)
MassMutual Select T. Rowe Price Large Cap Blend Fund (“MM Select T. Rowe Price Large Cap Blend Fund”)
MassMutual Select T. Rowe Price Limited Duration Inflation Focused Bond Fund (“MM Select T. Rowe Price Limited Duration Inflation Focused Bond Fund”)
MassMutual Select T. Rowe Price Real Assets Fund (“MM Select T. Rowe Price Real Assets Fund”)

Notes to Portfolio of Investments (Unaudited) (Continued)

MassMutual Select T. Rowe Price Small and Mid Cap Blend Fund (“MM Select T. Rowe Price Small and Mid Cap Blend Fund”)

MassMutual Select T. Rowe Price U.S. Treasury Long-Term Index Fund (“MM Select T. Rowe Price U.S. Treasury Long-Term Index Fund”)

MassMutual Select T. Rowe Price Retirement Balanced Fund (“MM Select T. Rowe Price Retirement Balanced Fund”)

MassMutual Select T. Rowe Price Retirement 2005 Fund (“MM Select T. Rowe Price Retirement 2005 Fund”)

MassMutual Select T. Rowe Price Retirement 2010 Fund (“MM Select T. Rowe Price Retirement 2010 Fund”)

MassMutual Select T. Rowe Price Retirement 2015 Fund (“MM Select T. Rowe Price Retirement 2015 Fund”)

MassMutual Select T. Rowe Price Retirement 2020 Fund (“MM Select T. Rowe Price Retirement 2020 Fund”)

MassMutual Select T. Rowe Price Retirement 2025 Fund (“MM Select T. Rowe Price Retirement 2025 Fund”)

MassMutual Select T. Rowe Price Retirement 2030 Fund (“MM Select T. Rowe Price Retirement 2030 Fund”)

MassMutual Select T. Rowe Price Retirement 2035 Fund (“MM Select T. Rowe Price Retirement 2035 Fund”)

MassMutual Select T. Rowe Price Retirement 2040 Fund (“MM Select T. Rowe Price Retirement 2040 Fund”)

MassMutual Select T. Rowe Price Retirement 2045 Fund (“MM Select T. Rowe Price Retirement 2045 Fund”)

MassMutual Select T. Rowe Price Retirement 2050 Fund (“MM Select T. Rowe Price Retirement 2050 Fund”)

MassMutual Select T. Rowe Price Retirement 2055 Fund (“MM Select T. Rowe Price Retirement 2055 Fund”)

MassMutual Select T. Rowe Price Retirement 2060 Fund (“MM Select T. Rowe Price Retirement 2060 Fund”)

The 20/80 Allocation Fund, 40/60 Allocation Fund, 60/40 Allocation Fund, and 80/20 Allocation Fund (the “MM Target Allocation Funds”) invest their investable assets in shares of MassMutual Funds advised by MML Investment Advisers, LLC (“MML Advisers”) and non-affiliated mutual funds (together, the “MM Target Allocation Underlying Funds”).

The MM RetireSMART by JPMorgan In Retirement Fund, MM RetireSMART by JPMorgan 2020 Fund, MM RetireSMART by JPMorgan 2025 Fund, MM RetireSMART by JPMorgan 2030 Fund, MM RetireSMART by JPMorgan 2035 Fund, MM RetireSMART by JPMorgan 2040 Fund, MM RetireSMART by JPMorgan 2045 Fund, MM RetireSMART by JPMorgan 2050 Fund, MM RetireSMART by JPMorgan 2055 Fund, and MM RetireSMART by JPMorgan 2060 Fund (the “MM RetireSMART by JPMorgan Funds”) invest their investable assets in shares of MassMutual Funds, J.P. Morgan Funds advised by J.P. Morgan Investment Management Inc. (“J.P. Morgan”) or its affiliates, and non-affiliated mutual funds (together, the “MM RetireSMART by JPMorgan Underlying Funds”).

Notes to Portfolio of Investments (Unaudited) (Continued)

The MM Select T. Rowe Price Retirement Balanced Fund, MM Select T. Rowe Price Retirement 2005 Fund, MM Select T. Rowe Price Retirement 2010 Fund, MM Select T. Rowe Price Retirement 2015 Fund, MM Select T. Rowe Price Retirement 2020 Fund, MM Select T. Rowe Price Retirement 2025 Fund, MM Select T. Rowe Price Retirement 2030 Fund, MM Select T. Rowe Price Retirement 2035 Fund, MM Select T. Rowe Price Retirement 2040 Fund, MM Select T. Rowe Price Retirement 2045 Fund, MM Select T. Rowe Price Retirement 2050 Fund, MM Select T. Rowe Price Retirement 2055 Fund, and MM Select T. Rowe Price Retirement 2060 Fund (the “MM Select T. Rowe Price Retirement Funds”) invest their investable assets primarily in shares of MassMutual Funds and T. Rowe Price Funds (together, the “MM Select T. Rowe Price Underlying Funds”). The MM Target Allocation Underlying Funds, MM RetireSMART by JPMorgan Underlying Funds, and MM Select T. Rowe Price Underlying Funds are hereinafter collectively referred to as the (“Underlying Funds”).

2. Significant Accounting Policies

Each Fund is an investment company and accordingly follows the investment company accounting and reporting guidance of the Financial Accounting Standards Board (“FASB”) Accounting Standards Codification Topic 946, Financial Services – Investment Companies.

Investment Valuation

The net asset value of each Fund’s shares is determined once daily as of the close of regular trading on the New York Stock Exchange (“NYSE”), on each day the NYSE is open for trading (a “business day”). The NYSE normally closes at 4:00 p.m. Eastern Time, but may close earlier on some days. If the NYSE is scheduled to close early, the business day will be considered to end as of the time of the NYSE’s scheduled close. A Fund will not treat an intraday disruption in NYSE trading or other event that causes an unscheduled closing of the NYSE as a close of business of the NYSE for these purposes; instead, MML Advisers will determine the fair value of a Fund’s securities in accordance with MML Advisers’ fair valuation policy and procedures. On holidays and other days when the NYSE is closed, each Fund’s net asset value generally is not calculated and the Funds do not anticipate accepting buy or sell orders. However, the value of each Fund’s assets may still be affected on such days to the extent that a Fund or an Underlying Fund holds foreign securities that trade on days that foreign securities markets are open.

The net asset value of each of the MM Target Allocation Funds, MM RetireSMART by JPMorgan Funds, and MM Select T. Rowe Price Retirement Funds is based upon the net asset value(s) of its corresponding Underlying Funds. Shares of the Underlying Funds are valued at their closing net asset values as reported on each business day.

The Prospectuses and Statements of Additional Information (“SAIs”) for the Underlying Funds explain the valuation methods for the Underlying Funds, including the circumstances under which the Underlying Funds may use fair value pricing and the effects of doing so. Such Prospectuses and SAIs are available on the Securities and Exchange Commission’s (“SEC”) EDGAR database on its website at <http://www.sec.gov>.

Notes to Portfolio of Investments (Unaudited) (Continued)

Equity securities and derivative contracts that are actively traded on a national securities exchange or contract market are valued on the basis of information furnished by a pricing service, which provides the last reported sale price, or, in the case of futures contracts, the settlement price, for securities or derivatives listed on the exchange or contract market or the official closing price on the NASDAQ National Market System (“NASDAQ System”), or in the case of over-the-counter (“OTC”) securities for which an official closing price is unavailable or not reported on the NASDAQ System, the last reported bid price. Portfolio securities traded on more than one national securities exchange are valued at the last price at the close of the exchange representing the principal market for such securities. Debt securities are valued on the basis of valuations furnished by a pricing service, which generally determines valuations taking into account factors such as institutional-size trading in similar securities, yield, quality, coupon rate, maturity, type of issue, trading characteristics, and other market data. Shares of other open-end mutual funds are valued at their closing net asset values as reported on each business day.

Investments for which market quotations are readily available are marked to market daily based on those quotations. Market quotations may be provided by third-party vendors or market makers, and may be determined on the basis of a variety of factors, such as broker quotations, financial modeling, and other market data, such as market indexes and yield curves, counterparty information, and foreign exchange rates. U.S. Government and agency securities may be valued on the basis of market quotations or using a model that may incorporate market observable data such as reported sales of similar securities, broker quotes, yields, bids, offers, quoted market prices, and reference data. The fair values of OTC derivative contracts, including forward, swap, and option contracts related to interest rates, foreign currencies, credit standing of reference entities, equity prices, or commodity prices, may be based on market quotations or may be modeled using a series of techniques, including simulation models, depending on the contract and the terms of the transaction. The fair values of asset-backed securities and mortgage-backed securities are estimated based on models that consider the estimated cash flows of each debt tranche of the issuer, established benchmark yield, and estimated tranche-specific spread to the benchmark yield based on the unique attributes of the tranche, including, but not limited to, prepayment speed assumptions and attributes of the collateral.

The Board of Trustees (“Trustees”) have designated MML Advisers as the Funds’ “valuation designee,” responsible for determining the fair value, in good faith, of securities and other instruments held by the Funds for which market quotations are not readily available or for which such market quotations or values are considered by MML Advisers or a subadviser to be unreliable (including, for example, certain foreign securities, thinly-traded securities, certain restricted securities, certain initial public offerings, or securities whose values may have been affected by a significant event). It is possible that a significant amount of a Fund’s assets will be subject to fair valuation in accordance with MML Advisers’ fair valuation policy and procedures. The fair value determined for an investment by MML Advisers may differ from recent market prices for the investment and may be significantly different from the value realized upon the sale of such investment.

The Funds and certain Underlying Funds may invest in securities that are traded principally in foreign markets and that trade on weekends and other days when the Funds do not price their shares. As a result, the values of the Funds’ portfolio securities may change on days when the prices of the Funds’ shares are not calculated. The prices of the Funds’ shares will reflect any such changes when the prices of the Funds’ shares are next calculated, which is the next business day. The Funds may use fair value pricing more frequently for securities primarily traded in foreign markets because, among other things, most foreign markets close well before the Funds value their securities. The earlier close of these foreign markets gives rise to the possibility that significant events, including broad market moves, may have occurred in the interim. The Funds’ investments may be priced based on fair values provided by a third-party vendor, based on certain factors and methodologies applied by such vendor, in the event that there is movement in the U.S. market, between the close of the foreign market and the time the Funds calculate their net asset values. All assets and liabilities expressed in foreign currencies are converted into U.S. dollars at the mean between the buying and selling rates of such currencies against the U.S. dollar at the end of each business day.

Notes to Portfolio of Investments (Unaudited) (Continued)

Investments in equity or debt issued by privately held companies or funds (“Private Company” or collectively, the “Private Companies”) and any other investments fair valued using significant unobservable inputs may be fair valued using one or a combination of, but not limited to, the following inputs:

Market approach: (i) recent market transactions, including subsequent rounds of financing, in the underlying investment or comparable issuers; (ii) recapitalizations and other transactions across the capital structure; and (iii) market multiples of comparable issuers.

Income approach: (i) future cash flows discounted to present value and adjusted as appropriate for liquidity, credit, and/or market risks; (ii) quoted prices for similar investments or assets in active markets; and (iii) other risk factors, such as interest rates, yield curves, volatilities, prepayment speeds, loss severities, credit risks, recovery rates, liquidation amounts, and/or default rates.

Cost approach: (i) audited or unaudited financial statements, investor communications, and financial or operational metrics issued by the Private Company; (ii) changes in the valuation of relevant indexes or publicly traded companies comparable to the Private Company; (iii) relevant news and other public sources; and (iv) known secondary market transactions in the Private Company’s interests and merger or acquisition activity in companies comparable to the Private Company.

Investments in series of preferred stock issued by Private Companies are typically valued utilizing the Market approach in determining the enterprise value of the company. Such investments often contain rights and preferences that differ from other series of preferred and common stock of the same issuer. Valuation techniques such as the current value method (“CVM”), an option pricing model (“OPM”), a probability weighted expected return model (“PWERM”), or a hybrid of those techniques are used in allocating enterprise value of the company, as deemed appropriate under the circumstances. The CVM allocates value among the various parts of a company’s capital structure assuming that the value of convertible preferred stock is represented by the most favorable claim the preferred stockholders have on the enterprise value as of the valuation date. The use of OPM and PWERM techniques involve a determination of the exit scenarios of the investment in order to appropriately allocate the enterprise value of the company among the various parts of its capital structure.

The Private Companies are not subject to the public company disclosure, timing, and reporting standards as other investments held by a Fund. Typically, the most recently available information for a Private Company is as of a date that is earlier than the date a Fund is calculating its net asset value. This factor may result in a difference between the value of the investment and the price a Fund could receive upon the sale of the investment.

Notes to Portfolio of Investments (Unaudited) (Continued)

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A three-tier hierarchy is utilized to maximize the use of observable market data inputs and minimize the use of unobservable inputs and to establish classification of fair value measurements for disclosure purposes. Inputs refer broadly to the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk, for example, the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and/or the risk inherent in the inputs to the valuation technique. Inputs may be observable or unobservable. Observable inputs are inputs that reflect the assumptions market participants would use in pricing the asset or liability and are developed based on market data obtained from sources independent of the reporting entity. Unobservable inputs are inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset or liability and are developed based on the best information available in the circumstances. The three-tier hierarchy of inputs is summarized in the three broad Levels listed below. The inputs or methodology used for valuing investments are not necessarily an indication of the risk associated with investing in those investments and the determination of the significance of a particular input to the fair value measurement in its entirety requires judgment and consideration of factors specific to each security.

Level 1 – quoted prices (unadjusted) in active markets for identical investments that the Funds can access at the measurement date

Level 2 – other significant observable inputs (including quoted prices for similar investments, interest rates, prepayment speeds, credit risk, etc.)

Level 3 – significant unobservable inputs, to the extent observable inputs are not available (including the Funds' own assumptions in determining the fair value of investments)

The availability of observable inputs can vary from security to security and is affected by a wide variety of factors, including, for example, the type of security, whether the security is new and not yet established in the marketplace, the liquidity of markets, and other characteristics particular to the security. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised in determining fair value is greatest for instruments categorized in Level 3.

Changes in valuation techniques may result in transfers in or out of an investment's assigned Level within the hierarchy. In addition, in periods of market dislocation, the observability of prices and inputs may be reduced for many instruments. This condition, as well as changes related to liquidity of investments, could cause a security to be reclassified between Levels.

In certain cases, the inputs used to measure fair value may fall into different Levels of the fair value hierarchy. In such cases, for disclosure purposes, the Level in the fair value hierarchy within which the fair value measurement falls is determined based on the lowest Level input that is significant to the overall fair value measurement.

The Fundamental Value Fund, Fundamental Growth Fund, Growth Opportunities Fund, and Small Cap Growth Equity Fund characterized all long-term investments at Level 1, and all short-term investments at Level 2, as of December 31, 2022. The MM Target Allocation Funds, MM RetireSMART by JPMorgan Funds, and the MM Select T. Rowe Price Retirement Funds characterized all investments at Level 1, as of December 31, 2022. For each Fund noted in the preceding sentences, the level classification by major category of investments is the same as the category presentation in the Portfolio of Investments.

The following is the aggregate value by input level, as of December 31, 2022, for the remaining Funds' investments:

Notes to Portfolio of Investments (Unaudited) (Continued)

Total Return Bond Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 376,965	\$ —	\$ —	\$ 376,965
Bank Loans (Less Unfunded Loan Commitments)	—	15,366,529	—	15,366,529
Corporate Debt	—	215,292,054	— ⁺	215,292,054
Municipal Obligations	—	2,198,369	—	2,198,369
Non-U.S. Government Agency Obligations	—	122,192,549	—	122,192,549
Sovereign Debt Obligations	—	7,571,120	—	7,571,120
U.S. Government Agency Obligations and Instrumentalities	—	284,072,982	—	284,072,982
U.S. Treasury Obligations	—	195,530,343	—	195,530,343
Rights	—	—	— ⁺	—
Mutual Funds	37,216,875	—	—	37,216,875
Short-Term Investments	—	99,746,890	—	99,746,890
Unfunded Loan Commitments**	\$ —	\$ (233)	\$ —	\$ (233)
Total Investments	<u>\$ 37,593,840</u>	<u>\$ 941,970,603</u>	<u>\$ —</u>	<u>\$ 979,564,443</u>
Asset Derivatives				
Forward Contracts	\$ —	\$ 4,880	\$ —	\$ 4,880
Futures Contracts	163,540	—	—	163,540
Swap Agreements	—	1,769,110	—	1,769,110
Total	<u>\$ 163,540</u>	<u>\$ 1,773,990</u>	<u>\$ —</u>	<u>\$ 1,937,530</u>
Liability Derivatives				
Forward Contracts	\$ —	\$ (92,893)	\$ —	\$ (92,893)
Futures Contracts	(29,150)	—	—	(29,150)
Swap Agreements	—	(5,688,111)	—	(5,688,111)
Total	<u>\$ (29,150)</u>	<u>\$ (5,781,004)</u>	<u>\$ —</u>	<u>\$ (5,810,154)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Strategic Bond Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Bank Loans (Less Unfunded Loan Commitments)	\$ —	\$ 11,469,437	\$ —	\$ 11,469,437
Corporate Debt	—	135,883,083	—	135,883,083
Municipal Obligations	—	50,558	—	50,558
Non-U.S. Government Agency Obligations	—	35,524,310	—	35,524,310
Sovereign Debt Obligations	—	17,085,265	—	17,085,265
U.S. Government Agency Obligations and Instrumentalities	—	122,602,917	—	122,602,917
U.S. Treasury Obligations	—	113,415,005	—	113,415,005
Purchased Options	100,563	—	—	100,563
Mutual Funds	9,365,725	—	—	9,365,725
Short-Term Investments	—	17,535,645	—	17,535,645
Unfunded Loan Commitments**	—	(5,921)	—	(5,921)
Total Investments	\$ 9,466,288	\$453,560,299	\$ —	\$463,026,587
Asset Derivatives				
Forward Contracts	\$ —	\$ 966,715	\$ —	\$ 966,715
Futures Contracts	1,268,433	—	—	1,268,433
Swap Agreements	—	4,601,372	—	4,601,372
Total	\$ 1,268,433	\$ 5,568,087	\$ —	\$ 6,836,520
Liability Derivatives				
Forward Contracts	\$ —	\$ (161,405)	\$ —	\$ (161,405)
Futures Contracts	(1,554,558)	—	—	(1,554,558)
Swap Agreements	—	(392,230)	—	(392,230)
Written Options	(194,038)	—	—	(194,038)
Total	\$ (1,748,596)	\$ (553,635)	\$ —	\$ (2,302,231)

Notes to Portfolio of Investments (Unaudited) (Continued)

Diversified Value Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 293,644,044	\$ 5,200,743*	\$ —	\$ 298,844,787
Preferred Stock	434,494	2,909,483*	—	3,343,977
Mutual Funds	2,496,744	—	—	2,496,744
Short-Term Investments	105	3,018,921	—	3,019,026
Total Investments	<u>\$ 296,575,387</u>	<u>\$ 11,129,147</u>	<u>\$ —</u>	<u>\$ 307,704,534</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

S&P 500 Index Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 2,305,897,257	\$ —	\$ —	\$ 2,305,897,257
Short-Term Investments	—	22,404,562	—	22,404,562
Total Investments	<u>\$ 2,305,897,257</u>	<u>\$ 22,404,562</u>	<u>\$ —</u>	<u>\$ 2,328,301,819</u>
Liability Derivatives				
Futures Contracts	<u>\$ (464,372)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (464,372)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Equity Opportunities Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 601,739,858	\$ 8,238,800*	\$ —	\$ 609,978,658
Preferred Stock	736,176	4,639,885*	—	5,376,061
Short-Term Investments	159	14,949,988	—	14,950,147
Total Investments	<u>\$ 602,476,193</u>	<u>\$ 27,828,673</u>	<u>\$ —</u>	<u>\$ 630,304,866</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Blue Chip Growth Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 2,321,035,569	\$ 9,003,355*	\$ 3,035,132	\$ 2,333,074,056
Preferred Stock	—	—	3,370,186	3,370,186
Corporate Debt	—	1,731,520	—	1,731,520
Short-Term Investments	102	22,109,521	—	22,109,623
Total Investments	<u>\$ 2,321,035,671</u>	<u>\$ 32,844,396</u>	<u>\$ 6,405,318</u>	<u>\$ 2,360,285,385</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Mid Cap Value Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 103,419,477	\$ 3,199,569*	\$ —	\$ 106,619,046
Preferred Stock	—	397,287*	—	397,287
Mutual Funds	462,969	—	—	462,969
Short-Term Investments	—	2,617,871	—	2,617,871
Total Investments	<u>\$ 103,882,446</u>	<u>\$ 6,214,727</u>	<u>\$ —</u>	<u>\$ 110,097,173</u>
Asset Derivatives				
Forward Contracts	<u>\$ —</u>	<u>\$ 2,290</u>	<u>\$ —</u>	<u>\$ 2,290</u>
Liability Derivatives				
Forward Contracts	<u>\$ —</u>	<u>\$ (16,417)</u>	<u>\$ —</u>	<u>\$ (16,417)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Small Cap Value Equity Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 50,083,400	\$ 495,358*	\$ —	\$ 50,578,758
Mutual Funds	452,296	—	—	452,296
Short-Term Investments	—	1,532,239	—	1,532,239
Total Investments	<u>\$ 50,535,696</u>	<u>\$ 2,027,597</u>	<u>\$ —</u>	<u>\$ 52,563,293</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Small Company Value Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 210,208,547	\$ 412,754*	\$ —	\$ 210,621,301
Mutual Funds	509,390	—	—	509,390
Short-Term Investments	—	2,535,191	—	2,535,191
Total Investments	<u>\$ 210,717,937</u>	<u>\$ 2,947,945</u>	<u>\$ —</u>	<u>\$ 213,665,882</u>
Asset Derivatives				
Forward Contracts	<u>\$ —</u>	<u>\$ 1,828</u>	<u>\$ —</u>	<u>\$ 1,828</u>
Liability Derivatives				
Forward Contracts	<u>\$ —</u>	<u>\$ (15)</u>	<u>\$ —</u>	<u>\$ (15)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Mid Cap Growth Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 5,085,073,640	\$ —	\$ 22,843,851	\$ 5,107,917,491
Preferred Stock	—	—	25,353,794	25,353,794
Mutual Funds	11,026,456	—	—	11,026,456
Short-Term Investments	211,333,493	67,540,273	—	278,873,766
Total Investments	<u>\$ 5,307,433,589</u>	<u>\$ 67,540,273</u>	<u>\$ 48,197,645</u>	<u>\$ 5,423,171,507</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Overseas Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock*				
Australia	\$ —	\$ 1,197,904	\$ —	\$ 1,197,904
Belgium	—	4,983,385	—	4,983,385
Canada	15,121,552	—	—	15,121,552
Cayman Islands	1,512,730	8,164,657	—	9,677,387
Denmark	—	12,028,157	—	12,028,157
France	—	80,778,690	—	80,778,690
Germany	—	71,627,255	—	71,627,255
Hong Kong	—	7,163,256	—	7,163,256
India	—	7,315,446	—	7,315,446
Ireland	5,983,865	4,219,889	—	10,203,754
Israel	4,142,338	—	—	4,142,338
Italy	—	12,088,433	—	12,088,433
Japan	—	43,848,754	—	43,848,754
Mexico	411,991	—	—	411,991
Netherlands	—	25,919,041	—	25,919,041
Portugal	—	2,419,721	—	2,419,721
Republic of Korea	—	2,920,822	—	2,920,822
Singapore	—	4,116,449	—	4,116,449
Spain	—	4,243,183	—	4,243,183
Sweden	—	4,999,973	—	4,999,973
Switzerland	—	58,553,305	—	58,553,305
Taiwan	3,261,247	—	—	3,261,247
United Kingdom	2,050,119	56,416,233	—	58,466,352
United States	2,174,469	—	—	2,174,469
Preferred Stock*				
Republic of Korea	—	2,112,487	—	2,112,487
Mutual Funds	386,416	—	—	386,416
Short-Term Investments	—	2,964,141	—	2,964,141
Total Investments	<u>\$ 35,044,727</u>	<u>\$ 418,081,181</u>	<u>\$ —</u>	<u>\$ 453,125,908</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price International Equity Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock*				
Australia	\$ 2,011,198	\$ 36,708,302	\$ —	\$ 38,719,500
Austria	—	6,730,757	—	6,730,757
Belgium	—	4,174,073	—	4,174,073
Bermuda	611,962	3,802,961	—	4,414,923
Brazil	—	19,227,071	—	19,227,071
Canada	60,523,099	—	—	60,523,099
Cayman Islands	23,814,116	58,002,542	—	81,816,658
Chile	3,510,608	—	—	3,510,608
China	—	49,281,461	—	49,281,461
Cyprus	—	—	—+	—
Denmark	—	5,822,035	—	5,822,035
Finland	—	13,164,359	—	13,164,359
France	—	115,495,027	—	115,495,027
Germany	—	81,220,485	—	81,220,485
Hong Kong	—	26,457,922	—	26,457,922
Hungary	—	4,735,162	—	4,735,162
India	2,278,158	65,298,762	—	67,576,920
Indonesia	—	10,368,884	—	10,368,884
Ireland	—	8,303,045	—	8,303,045
Italy	1,096,408	24,017,207	—	25,113,615
Japan	—	201,635,767	—	201,635,767
Luxembourg	—	4,910,544	—	4,910,544
Malaysia	—	3,666,231	—	3,666,231
Mexico	12,097,467	—	—	12,097,467
Netherlands	8,012,337	77,003,522	—+	85,015,859
Norway	—	13,942,035	—	13,942,035
Philippines	—	4,355,157	—	4,355,157
Poland	—	3,790,959	—	3,790,959
Portugal	—	8,412,470	—	8,412,470
Republic of Korea	2,013,701	50,072,746	—	52,086,447
Russia	—	—	—+	—
Saudi Arabia	—	8,887,317	—	8,887,317
Singapore	—	18,821,529	—	18,821,529
South Africa	—	10,021,601	—	10,021,601
Spain	—	12,429,426	—	12,429,426
Sweden	741,629	21,038,331	—	21,779,960
Switzerland	—	98,349,865	—	98,349,865
Taiwan	—	42,496,819	—	42,496,819
Thailand	7,123,149	3,094,862	—	10,218,011
United Arab Emirates	—	2,219,930	—	2,219,930
United Kingdom	35,035,910	128,779,949	—	163,815,859
United States	16,149,307	2,135,272	211,339	18,495,918
Preferred Stock*				
Germany	—	10,125,118	—	10,125,118
United States	—	—	12,691	12,691
Mutual Funds	2,310,919	—	—	2,310,919
Rights	1,808	—	95,761	97,569
Short-Term Investments	10,433,385	1,120,919	—	11,554,304
Total Investments	<u>\$ 187,765,161</u>	<u>\$ 1,260,120,424</u>	<u>\$ 319,791</u>	<u>\$ 1,448,205,376</u>
Liability Derivatives				
Written Options	<u>\$ —</u>	<u>\$ (11,905)</u>	<u>\$ —</u>	<u>\$ (11,905)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

Equity Asset Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 315,724,558	\$ 3,020*	\$ —	\$ 315,727,578
Rights	—	—	— ⁺	—
Mutual Funds	107,700	—	—	107,700
Short-Term Investments	—	5,309,630	—	5,309,630
Total Investments	<u>\$ 315,832,258</u>	<u>\$ 5,312,650</u>	<u>\$ —</u>	<u>\$ 321,144,908</u>
Liability Derivatives				
Futures Contracts	<u>\$ (117,077)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (117,077)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price Bond Asset Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Bank Loans (Less Unfunded Loan Commitments)	\$ —	\$ 4,795,043	\$ —	\$ 4,795,043
Corporate Debt	—	144,870,107	—	144,870,107
Municipal Obligations	—	305,474	—	305,474
Non-U.S. Government Agency Obligations	—	47,242,528	—	47,242,528
Sovereign Debt Obligations	—	101,723,013	—	101,723,013
U.S. Government Agency Obligations and Instrumentalities	—	116,733,898	—	116,733,898
U.S. Treasury Obligations	—	118,915,357	—	118,915,357
Purchased Options	—	92,249	—	92,249
Mutual Funds	22,183,340	—	—	22,183,340
Short-Term Investments	11,216,403	22,173,021	—	33,389,424
Unfunded Loan Commitments**	—	(1,552)	—	(1,552)
Total Investments	<u>\$ 33,399,743</u>	<u>\$ 556,849,138</u>	<u>\$ —</u>	<u>\$ 590,248,881</u>
Asset Derivatives				
Forward Contracts	\$ —	\$ 1,384,140	\$ —	\$ 1,384,140
Futures Contracts	366,614	—	—	366,614
Swap Agreements	—	380,429	—	380,429
Total	<u>\$ 366,614</u>	<u>\$ 1,764,569</u>	<u>\$ —</u>	<u>\$ 2,131,183</u>
Liability Derivatives				
Forward Contracts	\$ —	\$ (8,357,885)	\$ —	\$ (8,357,885)
Futures Contracts	(839,721)	—	—	(839,721)
Swap Agreements	—	(2,569,386)	—	(2,569,386)
Total	<u>\$ (839,721)</u>	<u>\$ (10,927,271)</u>	<u>\$ —</u>	<u>\$ (11,766,992)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price Emerging Markets Bond Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Corporate Debt	\$ —	\$ 24,453,010	\$ —	\$ 24,453,010
Sovereign Debt Obligations	—	51,872,214	—	51,872,214
Mutual Funds	1,320,090	—	—	1,320,090
Short-Term Investments	3,042,999	1,276,684	—	4,319,683
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total Investments	\$ 4,363,089	\$ 77,601,908	\$ —	\$ 81,964,997
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Asset Derivatives				
Forward Contracts	\$ —	\$ 3,675	\$ —	\$ 3,675
Futures Contracts	24,696	—	—	24,696
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total	\$ 24,696	\$ 3,675	\$ —	\$ 28,371
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Liability Derivatives				
Forwards Contracts	\$ —	\$ (101,597)	\$ —	\$ (101,597)
Futures Contracts	(97,395)	—	—	(97,395)
	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Total	\$ (97,395)	\$ (101,597)	\$ —	\$ (198,992)
	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price Large Cap Blend Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 1,870,950,701	\$ 12,534,786*	\$ 4,519,421	\$ 1,888,004,908
Preferred Stock	—	9,275,266*	9,511,786	18,787,052
Corporate Debt	—	—	50,373	50,373
Mutual Funds	697,218	—	—	697,218
Short-Term Investments	50,287,049	997,996	—	51,285,045
Total Investments	<u>\$ 1,921,934,968</u>	<u>\$ 22,808,048</u>	<u>\$ 14,081,580</u>	<u>\$ 1,958,824,596</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price Limited Duration Inflation Focused Bond Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Corporate Debt	\$ —	\$ 501,034	\$ —	\$ 501,034
Municipal Obligations	—	798,719	—	798,719
Non-U.S. Government Agency Obligations	—	8,310,535	—	8,310,535
U.S. Government Agency Obligations and Instrumentalities	—	2,071,624	—	2,071,624
U.S. Treasury Obligations	—	173,757,653	—	173,757,653
Mutual Funds	17,976,450	—	—	17,976,450
Short-Term Investments	9,008	690,381	—	699,389
Total Investments	<u>\$ 17,985,458</u>	<u>\$ 186,129,946</u>	<u>\$ —</u>	<u>\$ 204,115,404</u>
Asset Derivatives				
Futures Contracts	\$ 126,196	\$ —	\$ —	\$ 126,196
Swap Agreements	—	2,461,214	—	2,461,214
Total	<u>\$ 126,196</u>	<u>\$ 2,461,214</u>	<u>\$ —</u>	<u>\$ 2,587,410</u>
Liability Derivatives				
Futures Contracts	\$ (37,285)	\$ —	\$ —	\$ (37,285)
Swap Agreements	—	(111,258)	—	(111,258)
Total	<u>\$ (37,285)</u>	<u>\$ (111,258)</u>	<u>\$ —</u>	<u>\$ (148,543)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price Real Assets Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock*				
Australia	\$ —	\$ 23,167,492	\$ —	\$ 23,167,492
Belgium	—	588,878	—	588,878
Bermuda	—	780,099	—	780,099
Brazil	—	468,472	—	468,472
Canada	17,060,187	—	—	17,060,187
Cayman Islands	—	1,078,595	—	1,078,595
Denmark	—	988,789	—	988,789
Finland	—	3,168,042	—	3,168,042
France	—	5,385,160	—	5,385,160
Hong Kong	—	752,654	—	752,654
Ireland	1,984,479	—	—	1,984,479
Japan	—	5,981,286	—	5,981,286
Kazakhstan	—	1,285,767	—	1,285,767
Luxembourg	632,468	495,566	—	1,128,034
Mexico	437,901	—	—	437,901
Netherlands	347,009	491,904	—	838,913
Norway	—	4,074,316	—	4,074,316
Portugal	—	948,704	—	948,704
Republic of Korea	—	1,788,936	—	1,788,936
Russia	—	—	— ⁺	—
Singapore	—	1,282,098	—	1,282,098
South Africa	—	306,412	—	306,412
Spain	—	579,129	—	579,129
Sweden	—	7,521,025	—	7,521,025
United Kingdom	662,088	14,840,555	—	15,502,643
United States	117,527,276	—	—	117,527,276
Preferred Stock				
United States	913,259	—	1,312,643	2,225,902
Mutual Funds	12,255,204	—	—	12,255,204
Short-Term Investments	6,947,754	6,506,396	—	13,454,150
Total Investments	<u>\$ 158,767,625</u>	<u>\$ 82,480,275</u>	<u>\$ 1,312,643</u>	<u>\$ 242,560,543</u>
Asset Derivatives				
Forward Contracts	\$ —	\$ 84,463	\$ —	\$ 84,463
Futures Contracts	443,473	—	—	443,473
Total	<u>\$ 443,473</u>	<u>\$ 84,463</u>	<u>\$ —</u>	<u>\$ 527,936</u>
Liability Derivatives				
Forward Contracts	\$ —	\$ (13,883)	\$ —	\$ (13,883)
Futures Contracts	(121,390)	—	—	(121,390)
Swap Agreements	—	(2,412)	—	(2,412)
Total	<u>\$ (121,390)</u>	<u>\$ (16,295)</u>	<u>\$ —</u>	<u>\$ (137,685)</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price Small and Mid Cap Blend Fund

Asset Investments	Level 1	Level 2	Level 3	Total
Common Stock	\$ 647,452,455	\$ 16,055,859*	\$ 1,668,381	\$ 665,176,695
Preferred Stock	—	772,720*	13,075,357	13,848,077
Rights	—	—	28,892	28,892
Warrants	14,255	6,812	7,487	28,554
Mutual Funds	3,755,790	—	—	3,755,790
Short-Term Investments	27,319,435	991,000	—	28,310,435
Total Investments	<u>\$ 678,541,935</u>	<u>\$ 17,826,391</u>	<u>\$ 14,780,117</u>	<u>\$ 711,148,443</u>

Notes to Portfolio of Investments (Unaudited) (Continued)

MM Select T. Rowe Price U.S. Treasury Long-Term Index Fund

Asset Investments	Level 1	Level 2	Level 3	Total
U.S. Government Agency Obligations and Instrumentalities	\$ —	\$ 2,796,139	\$ —	\$ 2,796,139
U.S. Treasury Obligations	—	128,532,667	—	128,532,667
Mutual Funds	5,137,150	—	—	5,137,150
Short-Term Investments	65	102,017	—	102,082
Total Investments	<u>\$ 5,137,215</u>	<u>\$131,430,823</u>	<u>\$ —</u>	<u>\$136,568,038</u>
Asset Derivatives				
Futures Contracts	<u>\$ 21,006</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 21,006</u>

* Includes foreign equity securities whose values were adjusted to reflect market trading of comparable securities or other correlated instruments after the close of trading in their respective foreign markets, as applicable.

** Unfunded loan commitments are valued at the unrealized appreciation/(depreciation) on the commitment.

+ Represents a security at \$0 value as of December 31, 2022.

Notes to Portfolio of Investments (Unaudited) (Continued)

Derivative Instruments

Derivatives are financial instruments whose values are based on the values of one or more underlying indicators, such as a security, asset, currency, interest rate, or index. Derivative transactions can create investment leverage and may be highly volatile. Losses from derivatives can be substantially greater than the derivatives' original cost and can sometimes be unlimited. A Fund may not be able to close out a derivative transaction at a favorable time or price.

Please refer to the Funds' most recent Annual/Semiannual reports and Prospectus(es) and Statement(s) of Additional Information which can be found on the SEC's EDGAR database on its website at <http://www.sec.gov> for more information regarding the derivatives and other investments held by the Fund(s).

Securities Lending

Each Fund, other than the MM Target Allocation Funds, MM RetireSMART by JPMorgan Funds, and MM Select T. Rowe Price Retirement Funds may lend its securities; however, lending cannot exceed 33% of the total assets of the Fund taken at current value. The Funds' securities lending activities are governed by a Securities Lending Agency Agreement ("Lending Agreement") between each Fund and the lending agent ("Agent"). The Lending Agreement authorizes the Agent to lend portfolio securities held by a Fund to approved borrowers (each, a "Borrower").

Each Fund expects that in connection with any securities on loan, the loan will be secured continuously by collateral consisting of cash (U.S. currency) and/or securities (U.S. Treasury and Agency obligations) adjusted daily to have value at least equal to the current market value of the securities loaned. The market value of the loaned securities is determined at the close of business of a Fund and any additional collateral is delivered to the Fund the next business day. The Funds bear the risk of loss with respect to the investment of cash collateral. As with other extensions of credit, the Funds may bear the risk of delay in recovery of the loaned securities or even loss of rights in the collateral should the Borrower of the securities fail financially. Pursuant to the Lending Agreement, the Agent has provided indemnification to the Funds in the event of default by a Borrower with respect to a loan. The Funds receive compensation for lending their securities in the form of a securities loan fee paid by the Borrower, as well as a share of the income earned on investment of the cash collateral received for the loaned securities. At December 31, 2022, the Funds' collateral was equal to or greater than 100% of the market value of securities on loan and all of the Funds' cash collateral was invested in the State Street Navigator Securities Lending Government Money Market Portfolio.

Notes to Portfolio of Investments (Unaudited) (Continued)

Subject to the terms of the Lending Agreement and the agreement between the Agent and the applicable Borrower (“Borrowing Agreement”), security loans can be terminated by the Agent, the Fund, or the Borrower and the related securities must be returned within the earlier of the customary settlement period for such securities or the period of time specified in the Borrowing Agreement.

Accounting for Investment Transactions

Investment transactions are accounted for on the trade date. Realized gains and losses on sales of investments and unrealized appreciation and depreciation of investments are computed by the specific identification cost method. Proceeds received from litigation, if any, are included in realized gains on investment transactions for any investments that are no longer held in the portfolio and as a reduction in cost for investments that continue to be held in the portfolio. Interest income, adjusted for amortization of discounts and premiums on debt securities, is earned from the settlement date and is recorded on the accrual basis. Dividend income is recorded on the ex-dividend date. Withholding taxes on foreign interest, dividends, and capital gains have been provided for in accordance with the applicable country's tax rules and rates. Foreign dividend income is recorded on the ex-dividend date or as soon as practicable after the Fund determines the existence of a dividend declaration after exercising reasonable due diligence. Distributions received on securities that represent a return of capital or capital gains are recorded as a reduction of cost of investments and/or as a realized gain.

Foreign Currency Translation

The books and records of the Funds are maintained in U.S. dollars. The market values of foreign currencies, foreign securities, and other assets and liabilities denominated in foreign currencies are translated into U.S. dollars at the mean of the buying and selling rates of such currencies against the U.S. dollar at the end of each business day. Purchases and sales of foreign securities and income and expense items are translated at the rates of exchange prevailing on the respective dates of such transactions. The Funds do not isolate that portion of the results of operations arising from changes in the exchange rates from that portion arising from changes in the market prices of securities. Net realized foreign currency gains and losses resulting from changes in exchange rates include foreign currency gains and losses between trade date and settlement date on investment securities transactions, foreign currency transactions, and the difference between the amounts of dividends or interest recorded on the books of the Funds and the amount actually received.

Foreign Securities

The MM Select T. Rowe Price Real Assets Fund invests a significant amount of its assets in foreign securities and each of the Overseas Fund, MM Select T. Rowe Price International Equity Fund, and MM Select T. Rowe Price Emerging Markets Bond Fund invests substantially all of its assets in foreign securities. The other Funds and certain Underlying Funds may also invest in foreign securities. Foreign securities, including American Depositary Receipts, are subject to additional risks compared to securities of U.S. issuers, including international trade, currency, political, regulatory, public health, and diplomatic risks. In addition, fluctuations in currency exchange rates may favorably or unfavorably affect the values of foreign securities and the price of a Fund's shares. Emerging markets securities are subject to greater risks than securities issued in developed foreign markets, including less liquidity, less stringent investor protection and disclosure standards, less reliable settlement practices, greater price volatility, higher relative rates of inflation, greater political, economic, and social instability, greater custody and operational risks, greater risk of new or inconsistent government treatment of or restrictions on issuers and instruments, and greater volatility in currency exchange rates, and are more susceptible to environmental problems.

Notes to Portfolio of Investments (Unaudited) (Continued)

Federal Income Tax

It is each Fund's intent to continue to comply with the provisions of Subchapter M of the Internal Revenue Code of 1986, as amended, applicable to a regulated investment company. Under such provisions, the Funds would not be subject to federal income taxes on their ordinary income and net realized capital gains to the extent they are distributed or deemed to have been distributed to their shareholders. Therefore, the Funds have not made any provision for federal income tax.

Dividends and Distributions to Shareholders

Dividends from net investment income and distributions of any net realized capital gains of each Fund are declared and paid annually and at other times as may be required to satisfy tax or regulatory requirements.

Distributions to shareholders are recorded on the ex-dividend date. Income and capital gain distributions are determined in accordance with income tax regulations, which may differ from generally accepted accounting principles. As a result, net investment income and net realized capital gains on investment transactions for a reporting period may differ significantly from distributions during such period.

3. Federal Income Tax Information

At December 31, 2022, the aggregate cost of investments and the unrealized appreciation/(depreciation) in the value of all investments owned by the Fund(s), as computed on a federal income tax basis, were as follows:

	Federal Income Tax Cost	Tax Basis Unrealized Appreciation	Tax Basis Unrealized (Depreciation)	Net Unrealized Appreciation/ (Depreciation)
Total Return Bond Fund	\$ 1,042,011,269	\$ 1,576,282	\$ (64,023,108)	\$ (62,446,826)
Strategic Bond Fund	508,906,616	1,779,399	(47,659,428)	(45,880,029)
Diversified Value Fund	265,061,222	51,541,104	(8,897,792)	42,643,312
Fundamental Value Fund	395,365,774	96,517,024	(17,543,743)	78,973,281
S&P 500 Index Fund	1,431,083,667	993,577,308	(96,359,156)	897,218,152
Equity Opportunities Fund	541,671,459	110,502,346	(21,868,939)	88,633,407
Fundamental Growth Fund	30,350,057	1,713,461	(4,265,519)	(2,552,058)
Blue Chip Growth Fund	1,963,380,800	651,023,347	(254,118,762)	396,904,585
Growth Opportunities Fund	270,317,565	31,808,315	(60,700,997)	(28,892,682)
Mid Cap Value Fund	112,906,200	6,311,731	(9,120,758)	(2,809,027)
Small Cap Value Equity Fund	47,139,881	9,584,432	(4,161,020)	5,423,412
Small Company Value Fund	223,305,482	16,227,277	(25,866,877)	(9,639,600)
Mid Cap Growth Fund	4,844,071,954	963,905,001	(384,805,448)	579,099,553
Small Cap Growth Equity Fund	684,720,459	53,671,573	(55,470,715)	(1,799,142)
Overseas Fund	432,101,934	60,750,161	(39,726,187)	21,023,974
MM Select T. Rowe Price International Equity Fund	1,462,448,864	144,137,956	(158,381,444)	(14,243,488)
20/80 Allocation Fund	194,478,878	416,539	(28,487,897)	(28,071,358)
40/60 Allocation Fund	208,256,636	819,109	(33,310,238)	(32,491,129)
60/40 Allocation Fund	195,139,028	588,258	(30,588,785)	(30,000,527)
80/20 Allocation Fund	143,676,046	1,289,697	(22,915,129)	(21,625,432)
MM RetireSMART by JPMorgan In Retirement Fund	98,110,178	104,729	(13,808,324)	(13,703,595)
MM RetireSMART by JPMorgan 2020 Fund	192,843,390	189,595	(27,616,106)	(27,426,511)
MM RetireSMART by JPMorgan 2025 Fund	173,988,825	282,719	(27,312,829)	(27,030,110)
MM RetireSMART by JPMorgan 2030 Fund	392,425,728	680,582	(62,257,649)	(61,577,067)
MM RetireSMART by JPMorgan 2035 Fund	176,722,262	420,917	(28,935,107)	(28,514,190)
MM RetireSMART by JPMorgan 2040 Fund	292,929,399	779,227	(49,396,273)	(48,617,046)
MM RetireSMART by JPMorgan 2045 Fund	129,834,336	419,964	(22,295,925)	(21,875,961)
MM RetireSMART by JPMorgan 2050 Fund	208,654,342	600,075	(35,740,905)	(35,140,830)
MM RetireSMART by JPMorgan 2055 Fund	69,089,364	190,618	(11,780,377)	(11,589,759)
MM RetireSMART by JPMorgan 2060 Fund	21,718,170	50,650	(3,397,399)	(3,346,749)
Equity Asset Fund	287,797,052	51,242,036	(17,894,180)	33,347,856
MM Select T. Rowe Price Bond Asset Fund	643,946,521	4,181,535	(57,879,175)	(53,697,640)
MM Select T. Rowe Price Emerging Markets Bond Fund	99,210,131	252,826	(17,497,960)	(17,245,134)

MM Select T. Rowe Price Large Cap Blend Fund	2,006,822,813	98,516,356	(146,514,573)	(47,998,217)
MM Select T. Rowe Price Limited Duration Inflation Focused Bond Fund	213,559,646	1,516,506	(10,960,748)	(9,444,242)
MM Select T. Rowe Price Real Assets Fund	248,292,563	17,213,802	(22,945,822)	(5,732,020)
MM Select T. Rowe Price Small and Mid Cap Blend Fund	685,371,463	97,763,180	(71,986,200)	25,776,980
MM Select T. Rowe Price U.S. Treasury Long-Term Index Fund	179,431,567	69,429	(42,932,958)	(42,863,529)
MM Select T. Rowe Price Retirement Balanced Fund	195,710,617	—	(31,730,813)	(31,730,813)
MM Select T. Rowe Price Retirement 2005 Fund	29,807,096	—	(5,171,738)	(5,171,738)
MM Select T. Rowe Price Retirement 2010 Fund	124,000,819	—	(21,066,547)	(21,066,547)
MM Select T. Rowe Price Retirement 2015 Fund	136,054,771	—	(22,078,021)	(22,078,021)
MM Select T. Rowe Price Retirement 2020 Fund	617,149,598	—	(95,646,169)	(95,646,169)
MM Select T. Rowe Price Retirement 2025 Fund	647,686,170	—	(103,855,492)	(103,855,492)
MM Select T. Rowe Price Retirement 2030 Fund	1,421,983,351	—	(193,795,013)	(193,795,013)
MM Select T. Rowe Price Retirement 2035 Fund	772,649,953	—	(111,683,994)	(111,683,994)
MM Select T. Rowe Price Retirement 2040 Fund	1,279,708,914	8,002	(171,081,743)	(171,073,741)
MM Select T. Rowe Price Retirement 2045 Fund	614,718,614	—	(89,315,186)	(89,315,186)
MM Select T. Rowe Price Retirement 2050 Fund	889,224,150	—	(122,923,919)	(122,923,919)
MM Select T. Rowe Price Retirement 2055 Fund	386,903,045	—	(58,407,398)	(58,407,398)
MM Select T. Rowe Price Retirement 2060 Fund	183,326,673	—	(31,038,363)	(31,038,363)

Notes to Portfolio of Investments (Unaudited) (Continued)

4. New Accounting Pronouncements

In June 2022, FASB issued Accounting Standards Update 2022-03 — Fair Value Measurement (Topic 820) — Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions (“ASU 2022-03”). ASU 2022-03 clarifies the guidance in Topic 820 to indicate that a contractual sale restriction should not be considered in the fair value of an equity security subject to such a restriction, and requires entities with investments in equity securities subject to contractual sale restrictions to disclose certain qualitative and quantitative information about such securities. ASU 2022-03 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2023, and allows for early adoption. ASU 2022-03 will only be applicable to an equity security in which the contractual arrangement that restricts its sale is executed or modified on or after the adoption date. Management is currently evaluating the impact of applying this update.

5. Coronavirus (COVID-19) Pandemic

The global pandemic outbreak of the novel coronavirus known as COVID-19 and efforts to contain its spread have produced, and will likely continue to produce, substantial market volatility, severe market dislocations and liquidity constraints in many markets, exchange trading suspensions and closures, higher default rates, and global business disruption, and they may result in future significant adverse effects, such as declines in global financial markets and a substantial economic downturn or recession throughout the world. Such factors may have a significant adverse effect on a Fund’s performance and have the potential to impair the ability of a Fund’s investment adviser, subadviser, or other service providers to serve the Fund and could lead to disruptions that negatively impact the Fund.

6. Russia-Ukraine War

In February 2022, Russia commenced a large-scale military attack on Ukraine. The outbreak of hostilities between the two countries could result in more widespread conflict and could have a severe adverse effect on the regional and the global financial markets and economies. One or more of the Funds hold positions in securities or other instruments that are economically tied to Russia. Investments in Russia are subject to political, economic, legal, market, and currency risks, as well as the risks related to the economic sanctions on Russia, Russian individuals, and Russian corporate and banking entities imposed by the United States and/or other countries. Such sanctions — which affect companies in many sectors, including energy, financial services, and defense, among others — could adversely affect the global energy and financial markets and, thus, could affect the value of a Fund’s or an Underlying Fund’s investments, even beyond any direct exposure the Fund or the Underlying Fund may have to Russian issuers or the adjoining geographic regions. Such sanctions may also result in a decline in the value and liquidity of Russian securities and a weakening of the ruble, and will impair a Fund’s or an Underlying Fund’s ability to buy, sell, receive, or deliver Russian securities. In addition, certain transactions have been or may be prohibited and/or existing investments have or may become illiquid (e.g., because transacting in certain existing investments is prohibited), which could cause a Fund or an Underlying Fund to sell other portfolio holdings at a disadvantageous time or price in order to meet shareholder redemptions.