



GREAT GRAY
TRUST COMPANY

GREAT GRAY COLLECTIVE INVESTMENT TRUST
FUNDS SUB-ADVISED BY MML INVESTMENT ADVISERS, LLC
FINANCIAL STATEMENTS
DECEMBER 31, 2023
WITH
INDEPENDENT AUDITOR'S REPORT

Great Gray Collective Investment Trust
Funds Sub-Advised by MML Investment Advisers, LLC

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INDEPENDENT AUDITOR'S REPORT

Great Gray Trust Company, LLC, Trustee for
Great Gray Collective Investment Trust

Opinion

We have audited the financial statements of the MassMutual funds Sub-Advised by MML Investment Advisers, LLC of Great Gray Collective Investment Trust, comprising the funds (the "Funds") on the Fund Index on page 3, which comprise the statements of assets and liabilities, including the schedules of investments, as of December 31, 2023, the related statements of operations and changes in net assets, and the financial highlights for the year then ended, or for the period then ended for inception dates in 2023, and the related notes to the financial statements. These financial statements and financial highlights are hereinafter collectively referred to as financial statements.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of each of the Funds as of December 31, 2023, and the results of its operations, changes in its net assets and its financial highlights for the year then ended, or for the period then ended for inception dates in 2023, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Funds and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about each Fund's ability to continue as a going concern within one year after the date that the financial statements are issued or available to be issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve

collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of each Fund's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about each Fund's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audits, significant audit findings, and certain internal control-related matters that we identified during the audits.

Other Matter

Our audits were conducted for the purpose of forming an opinion on the financial statements of each Fund as a whole. The supplementary information for the year ended December 31, 2023, or for the period then ended for inception dates in 2023, following the schedule of investments, is presented for purposes of additional analysis and is not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audits of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.



Tulsa, Oklahoma
April 29, 2024

.:. MassMutual

Great Gray Collective Investment Trust
Funds Sub-Advised by MML Investment Advisers, LLC

FUND INDEX

FUND NAME

FUND OBJECTIVE

**MassMutual Small Cap Growth Equity
CIT**

The Fund seeks to provide long-term total return in excess of the Russell 2000 Growth Index benchmark by investing in equity securities of small capitalization companies.

MassMutual Total Return Bond CIT

The Fund seeks maximum total return, consistent with preservation of capital and prudent investment management. To implement this objective, the Fund will be invested initially in the MassMutual Total Return Bond Fund Class I.

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Common Stocks - 94.0%</u>			
<u>Communications - 1.7%</u>			
Cargurus, Inc.	22,392	\$ 550,815	\$ 540,991
Criteo S.A. ^	10,064	298,399	254,820
Eventbrite, Inc. Class A	40,307	340,430	336,966
New York Times Co./The Class A	8,942	321,408	438,069
Ziff Davis, Inc.	4,945	410,136	332,255
Total Communications		<u>1,921,188</u>	<u>1,903,101</u>
<u>Consumer Discretionary - 10.4%</u>			
Acushnet Holdings Corporation	4,614	207,400	291,466
AZEK Co., Inc./The	35,975	942,422	1,376,044
Boot Barn Holdings, Inc.	6,438	533,688	494,181
Boyd Gaming Corporation	6,762	397,057	423,369
Carter's, Inc.	3,658	277,102	273,948
Cava Group, Inc.	3,355	82,398	144,198
Century Communities, Inc.	4,013	228,224	365,745
Cinemark Holdings, Inc.	19,992	288,806	281,687
Crocs, Inc.	3,493	314,375	326,281
ePlus, Inc.	2,845	167,239	227,145
European Wax Center, Inc. Class A	11,918	214,117	161,966
Freshpet, Inc.	4,070	235,489	353,113
Meritage Homes Corporation	2,556	414,000	445,255
Papa John's International, Inc.	4,663	362,917	355,460
Patrick Industries, Inc.	2,054	122,984	206,119
Red Rock Resorts, Inc. Class A	12,006	495,508	640,280
Shake Shack, Inc. Class A	3,798	244,740	281,508
Skyline Champion Corporation	12,050	703,173	894,833
Steven Madden Ltd.	10,131	363,527	425,502
Taylor Morrison Home Corporation	8,612	354,785	459,450
Texas Roadhouse, Inc.	3,634	401,393	444,184
TKO Group Holdings, Inc.	4,012	311,853	327,299
Visteon Corporation	2,379	310,855	297,137
Wingstop, Inc.	6,202	947,560	1,591,309
WW International, Inc.	7,860	85,773	68,775
YETI Holdings, Inc.	13,240	509,115	685,567
Total Consumer Discretionary		<u>9,516,500</u>	<u>11,841,821</u>
<u>Consumer Staples - 3.6%</u>			
BellRing Brands, Inc.	11,466	401,914	635,560
Celsius Holdings, Inc.	18,087	622,443	986,103

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

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
Common Stocks - 94.0% (continued)			
Consumer Staples - 3.6% (continued)			
elf Beauty, Inc.	12,596	\$ 797,206	\$ 1,818,107
Ollie's Bargain Outlet Holdings, Inc.	4,537	352,780	344,313
TreeHouse Foods, Inc.	6,906	350,603	286,254
Total Consumer Staples		2,524,946	4,070,337
Energy - 5.6%			
Ameresco, Inc. Class A	7,595	416,632	240,534
Aris Water Solutions, Inc. Class A	11,124	172,025	93,330
Chord Energy Corporation	5,169	719,722	859,243
Gulfport Energy Corporation	2,862	315,359	381,218
Magnolia Oil & Gas Corporation Class A	16,092	360,801	342,599
Matador Resources Co.	7,818	442,106	444,532
Maxeon Solar Technologies Ltd.	9,020	159,991	64,673
Northern Oil and Gas, Inc.	11,856	466,744	439,502
Seadrill Ltd.	14,127	617,437	667,925
Shoals Technologies Group, Inc. Class A	43,898	881,123	682,175
Sitio Royalties Corporation Class A	14,948	354,370	351,427
TechnipFMC PLC	22,500	401,828	453,150
Viper Energy, Inc.	29,982	875,322	940,835
Weatherford International PLC	4,953	376,867	484,552
Total Energy		6,560,327	6,445,695
Financials - 9.2%			
Air Lease Corporation	11,062	426,510	463,940
Ameris Bancorp	8,462	363,058	448,909
Assured Guaranty Ltd.	6,196	354,737	463,647
Cadence Bank	27,400	691,342	810,766
Cohen & Steers, Inc.	1,503	110,220	113,822
Essent Group Ltd.	4,703	227,448	248,036
Evercore, Inc. Class A	4,523	576,402	773,659
First Interstate BancSystem, Inc. Class A	14,045	475,885	431,884
GATX Corporation	2,708	273,036	325,556
Hamilton Lane, Inc. Class A	10,269	736,677	1,164,915
Hancock Whitney Corporation	9,123	346,900	443,287
Kemper Corporation	7,111	351,129	346,092
Kinsale Capital Group, Inc.	1,816	556,193	608,197
MGIC Investment Corporation	13,403	189,044	258,544
Mr Cooper Group, Inc.	3,268	206,116	212,812
National Bank Holdings Corporation Class A	11,656	444,914	433,487

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Great Gray Collective Investment Trust

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MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Common Stocks - 94.0% (continued)</u>			
<u>Financials - 9.2% (continued)</u>			
PJT Partners, Inc. Class A	6,969	\$ 527,846	\$ 709,932
PRA Group, Inc.	16,495	450,690	432,169
Seacoast Banking Corporation of Florida	15,540	437,646	442,268
Selective Insurance Group, Inc.	3,451	301,880	343,305
SiriusPoint Ltd.	30,898	321,286	358,417
StepStone Group, Inc. Class A	11,208	295,139	356,751
UMB Financial Corporation	4,190	314,510	350,074
Total Financials		8,978,608	10,540,469
Health Care - 16.7%			
10X Genomics, Inc. Class A	3,738	179,647	209,178
Acadia Healthcare Co., Inc.	17,917	1,359,341	1,393,226
Akero Therapeutics, Inc.	6,930	191,679	161,815
Amicus Therapeutics, Inc.	21,931	226,512	311,201
Apellis Pharmaceuticals, Inc.	5,846	275,348	349,942
Ascendis Pharma A/S [^]	765	73,084	96,352
Axonics, Inc.	9,910	609,267	616,699
Blueprint Medicines Corporation	4,076	282,212	375,970
Celldex Therapeutics, Inc.	6,088	174,149	241,450
Crinetics Pharmaceuticals, Inc.	11,311	258,614	402,445
Cytokinetics, Inc.	11,165	513,873	932,166
Encompass Health Corporation	7,661	469,746	511,142
Glaukos Corporation	11,263	669,253	895,296
Globus Medical, Inc. Class A	5,083	316,967	270,873
Haemonetics Corporation	13,733	1,057,952	1,174,309
Halozyme Therapeutics, Inc.	5,356	263,062	197,958
HealthEquity, Inc.	8,200	568,177	543,660
Immatics N.V.	25,633	259,446	269,915
Immunocore Holdings PLC [^]	2,860	157,721	195,395
ImmunoGen, Inc.	4,885	65,671	144,840
Inari Medical, Inc.	5,702	409,686	370,174
Inspire Medical Systems, Inc.	1,967	410,370	400,147
Integer Holdings Corporation	1,176	109,572	116,518
Intellia Therapeutics, Inc.	3,288	140,141	100,251
Intra-Cellular Therapies, Inc.	10,569	559,227	756,952
Karuna Therapeutics, Inc.	814	164,088	257,639
Kymera Therapeutics, Inc.	7,881	162,306	200,650
Lantheus Holdings, Inc.	4,303	343,236	266,786
Medpace Holdings, Inc.	3,201	720,340	981,203

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

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Common Stocks - 94.0% (continued)</u>			
<u>Health Care - 16.7% (continued)</u>			
Merit Medical Systems, Inc.	4,632	\$ 369,376	\$ 351,847
Merus N.V.	4,139	84,432	113,823
Morphic Holding, Inc.	4,792	198,526	138,393
Myriad Genetics, Inc.	16,590	317,890	317,533
PROCEPT BioRobotics Corporation	15,068	541,891	631,500
Progyny, Inc.	6,712	256,011	249,552
Prothena Corporation PLC	2,064	108,526	75,006
PTC Therapeutics, Inc.	3,968	149,150	109,358
RadNet, Inc.	8,165	254,812	283,897
Repligen Corporation	1,388	248,449	249,562
Revance Therapeutics, Inc.	3,794	70,628	33,349
REVOLUTION Medicines, Inc.	11,093	240,260	318,147
Rocket Pharmaceuticals, Inc.	17,833	308,157	534,455
Shockwave Medical, Inc.	2,677	605,996	510,129
Structure Therapeutics, Inc.^	5,283	226,648	215,335
Surgery Partners, Inc.	25,572	822,159	818,048
Syndax Pharmaceuticals, Inc.	8,664	187,039	187,229
TransMedics Group, Inc.	2,443	175,332	192,826
Ultragenyx Pharmaceutical, Inc.	2,552	121,297	122,037
Vaxcyte, Inc.	4,540	189,721	285,112
Veracyte, Inc.	10,268	205,827	282,473
Verona Pharma PLC^	8,643	182,401	171,823
Xenon Pharmaceuticals, Inc.	3,551	134,389	163,559
Total Health Care		16,989,604	19,099,145
<u>Industrials - 19.7%</u>			
AAON, Inc.	6,254	398,639	461,983
AAR Corporation	3,208	216,767	200,179
Acuity Brands, Inc.	1,367	230,368	280,003
Albany International Corporation Class A	2,838	245,127	278,748
Applied Industrial Technologies, Inc.	7,992	1,024,862	1,380,138
Badger Meter, Inc.	2,434	323,309	375,737
Cactus, Inc. Class A	10,011	461,974	454,499
Casella Waste Systems, Inc. Class A	11,469	896,202	980,141
Clean Harbors, Inc.	5,794	722,498	1,011,111
Comfort Systems USA, Inc.	7,187	937,319	1,478,150
Cross Country Healthcare, Inc.	12,046	328,709	272,721
Curtiss-Wright Corporation	6,416	1,057,203	1,429,421
EMCOR Group, Inc.	2,117	371,467	456,065

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Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Common Stocks - 94.0% (continued)</u>			
<u>Industrials - 19.7% (continued)</u>			
Enpro, Inc.	2,671	\$ 336,417	\$ 418,652
Esab Corporation	5,025	320,057	435,265
FlowsERVE Corporation	10,939	352,475	450,906
Fluor Corporation	32,916	966,881	1,289,320
H&E Equipment Services, Inc.	11,053	514,076	578,293
H&R Block, Inc.	8,770	332,584	424,205
Helios Technologies, Inc.	7,475	404,172	338,991
Herc Holdings, Inc.	2,166	249,029	322,496
Hexcel Corporation	7,889	546,230	581,814
Kennametal, Inc.	9,706	246,866	250,318
Kirby Corporation	5,166	344,547	405,428
Leonardo DRS, Inc.	15,263	209,134	305,870
ManpowerGroup, Inc.	4,385	318,195	348,476
Middleby Corporation/The	2,159	305,373	317,740
Modine Manufacturing Co.	4,963	267,167	296,291
NEXTracker, Inc. Class A	6,443	253,616	301,855
Novanta, Inc.	5,542	829,324	933,328
Rush Enterprises, Inc. Class A	19,134	676,691	962,440
RXO, Inc.	15,200	265,126	353,552
Ryder System, Inc.	3,195	331,533	367,617
Saia, Inc.	2,108	541,080	923,768
Sovos Brands, Inc.	11,357	173,707	250,195
TopBuild Corporation	1,699	445,873	635,868
TriNet Group, Inc.	6,353	515,032	755,562
Vertiv Holdings Co. Class A	6,468	152,918	310,658
Zurn Elkay Water Solutions Corporation	29,134	752,389	856,831
Total Industrials		17,864,936	22,474,635
<u>Materials - 4.3%</u>			
ATI, Inc.	12,522	477,573	569,375
Boise Cascade Co.	3,230	323,218	417,833
Cabot Corporation	14,374	982,557	1,200,229
Carpenter Technology Corporation	7,485	512,266	529,938
Eagle Materials, Inc.	1,954	352,942	396,349
Element Solutions, Inc.	9,880	229,271	228,623
Graphic Packaging Holding Co.	15,405	332,548	379,733
Livent Corporation	33,029	734,404	593,862
Methanex Corporation	8,894	373,897	421,220

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Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Common Stocks - 94.0% (continued)</u>			
<u>Materials - 4.3% (continued)</u>			
Trex Co., Inc.	2,750	\$ 200,505	\$ 227,673
Total Materials		<u>4,519,181</u>	<u>4,964,835</u>
<u>Real Estate - 0.4%</u>			
McGrath RentCorp	3,402	306,541	406,947
Total Real Estate		<u>306,541</u>	<u>406,947</u>
<u>Technology - 21.9%</u>			
Allegro MicroSystems, Inc.	9,650	341,771	292,106
Altair Engineering, Inc. Class A	7,320	505,972	615,978
Braze, Inc. Class A	10,465	472,610	556,005
Calix, Inc.	19,196	901,656	838,673
Celestica, Inc.	13,032	336,118	381,577
Cirrus Logic, Inc.	2,196	161,214	182,685
Clearwater Analytics Holdings, Inc. Class A	13,172	212,902	263,835
Crane NXT Co.	3,600	193,533	204,732
Credo Technology Group Holding Ltd.	11,723	219,768	228,247
CyberArk Software Ltd.	4,807	739,035	1,052,973
DoubleVerify Holdings, Inc.	37,474	1,093,378	1,378,294
Duolingo, Inc.	6,311	799,246	1,431,650
Endava PLC [^]	7,593	485,440	591,115
Evolent Health, Inc. Class A	16,104	449,472	531,915
ExlService Holdings, Inc.	19,531	630,092	602,531
Five9, Inc.	5,539	422,490	435,864
Flywire Corporation	14,120	435,747	326,878
FormFactor, Inc.	8,385	260,735	349,738
Freshworks, Inc. Class A	9,257	225,456	217,447
Gitlab, Inc. Class A	16,482	805,587	1,037,707
Global-e Online Ltd.	7,993	330,429	316,763
Guidewire Software, Inc.	5,055	467,787	551,197
Informatica, Inc. Class A	7,621	210,439	216,360
Intapp, Inc.	4,922	186,390	187,134
Jamf Holding Corporation	38,096	961,300	688,014
JFrog Ltd.	9,626	300,768	333,156
Lattice Semiconductor Corporation	6,646	405,358	458,508
MACOM Technology Solutions Holdings, Inc.	6,814	477,260	633,361
Manhattan Associates, Inc.	1,549	218,843	333,531
MKS Instruments, Inc.	2,519	252,048	259,130
Onto Innovation, Inc.	3,431	452,387	524,600

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Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Common Stocks - 94.0% (continued)</u>			
<u>Technology - 21.9% (continued)</u>			
Parsons Corporation	8,219	\$ 486,141	\$ 515,414
Perficient, Inc.	5,278	393,305	347,398
Power Integrations, Inc.	4,122	301,731	338,457
PowerSchool Holdings, Inc. Class A	23,720	455,606	558,843
Privia Health Group, Inc.	12,356	351,540	284,559
Rambus, Inc.	7,976	510,021	544,362
Rapid7, Inc.	5,738	244,223	327,640
Remitly Global, Inc.	6,465	158,265	125,550
RingCentral, Inc. Class A	2,715	96,052	92,174
Silicon Laboratories, Inc.	3,485	375,290	460,961
SiTime Corporation	1,997	246,895	243,794
Sprout Social, Inc. Class A	22,188	1,154,132	1,363,231
SPS Commerce, Inc.	2,427	411,935	470,450
Squarespace, Inc. Class A	9,815	275,460	323,993
Synaptics, Inc.	7,154	777,949	816,128
Universal Display Corporation	978	143,365	187,052
Varonis Systems, Inc.	9,646	373,422	436,771
Verra Mobility Corporation	36,365	595,461	837,486
Viavi Solutions, Inc.	33,999	434,321	342,370
Workiva, Inc.	3,287	336,797	333,729
Total Technology		22,077,142	24,972,066
<u>Utilities - 0.5%</u>			
IDACORP, Inc.	3,258	311,805	320,327
ONE Gas, Inc.	4,256	330,262	271,192
Total Utilities		642,067	591,519
Total Common Stocks		91,901,040	107,310,570
<u>Exchange-Traded Funds - 0.8%</u>			
iShares Russell 2000 ETF	3,435	611,247	689,439
iShares Russell 2000 Growth ETF	895	192,565	225,737
Total Exchange-Traded Funds		803,812	915,176
<u>Real Estate Investment Trusts - 3.9%</u>			
<u>Real Estate - 3.9%</u>			
Douglas Emmett, Inc.	20,222	378,500	293,219
Essential Properties Realty Trust, Inc.	15,053	359,016	384,755
Hannon Armstrong Sustainable Infrastructure Capital, Inc.	25,632	833,643	706,931
National Storage Affiliates Trust	8,599	381,319	356,601

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Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued) December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
<u>Real Estate Investment Trusts - 3.9% (continued)</u>			
Real Estate - 3.9% (continued)			
Phillips Edison & Co., Inc.	21,940	\$ 718,152	\$ 800,371
PotlatchDeltic Corporation	7,817	383,203	383,815
Ryman Hospitality Properties, Inc.	5,402	465,783	594,544
Terreno Realty Corporation	9,053	556,367	567,351
Xenia Hotels & Resorts, Inc.	26,291	389,398	358,083
Total Real Estate		<u>4,465,381</u>	<u>4,445,670</u>
Total Real Estate Investment Trusts		<u>4,465,381</u>	<u>4,445,670</u>
<u>Money Market Trusts - 1.3%</u>			
NT Collective Government Short Term Investment Fund	1,513,160	1,513,160	1,513,160
Total Money Market Trusts		<u>1,513,160</u>	<u>1,513,160</u>
Total Investments - 100.0%		<u>\$ 98,683,393</u>	114,184,576
Other Assets and Liabilities, Net - (0.0)%			(15,772)
Net Assets - 100.0%			<u>\$ 114,168,804</u>

^ American Depositary Receipt

The following is a summary of the fair value of the investments in the Fund based on the inputs used to value them as of December 31, 2023 (see Note 3 in Notes to the Financial Statements):

	Fair Value Measurements				Total
	Level 1	Level 2	Level 3	Investments Measured at Net Asset Value*	
Common Stocks	\$ 107,310,570	\$ -	\$ -	\$ -	\$ 107,310,570
Exchange-Traded Funds	915,176	-	-	-	915,176
Real Estate Investment Trusts	4,445,670	-	-	-	4,445,670
Money Market Trusts	-	-	-	1,513,160	1,513,160
Total	<u>\$ 112,671,416</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,513,160</u>	<u>\$ 114,184,576</u>

*Certain investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient have not been categorized in the fair value hierarchy. The fair value amounts presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the Statement of Assets and Liabilities.

Concentration of Ownership: As of December 31, 2023, the Fund had three unitholders holding 10% or more of the outstanding units of the Fund, and aggregated to 88.6% of the Fund's total units outstanding.

Great Gray Collective Investment Trust
Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Schedule of Investments (continued)
December 31, 2023

Supplementary Information: Total investment purchases, sales proceeds, and realized loss for the year ended December 31, 2023, were:

	Purchases at Cost	Sales Proceeds	Realized Loss
Equity	\$ 88,214,218	\$ 60,731,682	\$ (247,174)
Money Market	64,091,131	64,769,735	-
Total	<u>\$ 152,305,349</u>	<u>\$ 125,501,417</u>	<u>\$ (247,174)</u>

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Statement of Assets and Liabilities December 31, 2023

Assets	
Investments in securities, at fair value (cost \$98,683,393)	\$ 114,184,576
Cash and cash equivalents	1,593
Receivable for investment securities sold	244,720
Receivable for fund units sold	145,746
Dividends receivable	70,659
Foreign tax reclaim receivable	845
Total assets	<u>114,648,139</u>
Liabilities	
Payable for investment securities purchased	184,453
Accrued trustee and sub-advisor fees	170,035
Payable for fund units redeemed	122,207
Accrued professional services and other operating expenses	2,640
Total liabilities	<u>479,335</u>
Net Assets	<u>\$ 114,168,804</u>

Statement of Operations For the year ended December 31, 2023

Investment Income (Loss)	
Income	
Dividends (net of withholding taxes of \$573)	\$ 929,824
Total income	<u>929,824</u>
Expenses	
Trustee and sub-advisor fees	641,376
Professional services and other operating expenses	4,466
Total expenses	<u>645,842</u>
Net investment income	<u>283,982</u>
Realized and Unrealized Gain / Loss	
Net realized gain (loss) on:	
Investments	<u>(247,174)</u>
Net realized loss	<u>(247,174)</u>
Change in net unrealized gain / loss on:	
Investments	<u>17,121,605</u>
Change in net unrealized gain / loss	<u>17,121,605</u>
Net realized and unrealized gain / loss	<u>16,874,431</u>
Increase in net assets from operations	<u>\$ 17,158,413</u>

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

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Statement of Changes in Net Assets For the year ended December 31, 2023

Increase (Decrease) in Net Assets

Operations

Net investment income	\$	283,982
Net realized loss		(247,174)
Change in net unrealized gain / loss		17,121,605
Increase in net assets from operations		17,158,413

Unit transactions

Proceeds from units issued		
Class R3		16,855,840
Class R4		4,101,352
Founders		11,473,110
Class CT [^]		13,424,473
Total proceeds from units issued		45,854,775

Value of units redeemed

Class R3		(6,496,284)
Class R4		(3,260,688)
Founders		(8,224,353)
Class CT [^]		(1,167,477)
Total value of units redeemed		(19,148,802)

Increase in net assets resulting from unit transactions		26,705,973
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Increase in net assets		43,864,386
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Net assets, beginning of year		70,304,418
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Net assets, end of year	\$	114,168,804
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[^] Class CT funded on 10/10/2023.

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Small Cap Growth Equity CIT

Financial Highlights For the year ended December 31, 2023

Per Unit Operating Performance	Class R3	Class R4	Founders	Class CT
Net asset value, beginning of year or at inception	\$ 6.91	\$ 6.92	\$ 6.92	\$ 7.22
Investment operations:				
Net investment income ⁽¹⁾	0.02	0.02	0.03	0.01
Net realized and unrealized gain / loss ⁽¹⁾	1.19	1.18	1.18	0.90
Total from investment operations	1.21	1.20	1.21	0.91
Net asset value, end of year	\$ 8.12	\$ 8.12	\$ 8.13	\$ 8.13
Total Return	17.51%	17.34%	17.49%	12.60% [^]
Supplemental Data				
Ratio to average net assets:				
Expenses	0.76%	0.72%	0.66%	0.70% [#]
Net investment income	0.24%	0.29%	0.35%	0.68% [#]
Unit Activity				
Units, beginning of year	1,786,719	2,654,701	5,720,800	-
Issued	2,448,626	563,039	1,568,514	1,914,237
Redeemed	(888,288)	(441,654)	(1,122,008)	(152,911)
Units, end of year	3,347,057	2,776,086	6,167,306	1,761,326

⁽¹⁾ Based on average units outstanding.

[^] Not annualized for periods less than one year. Class CT funded on 10/10/2023.

[#] Annualized except audit expense.

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Total Return Bond CIT

Schedule of Investments December 31, 2023

	Principal Amount or Shares	Cost	Fair Value
Mutual Funds - 100.0%			
MassMutual Total Return Bond Fund Class I	10,620,829	\$ 90,734,041	\$ 90,383,255
Total Mutual Funds		90,734,041	90,383,255
Total Investments - 100.0%		\$ 90,734,041	90,383,255
Other Assets and Liabilities, Net - 0.0%			12,741
Net Assets - 100.0%			\$ 90,395,996

The following is a summary of the fair value of the investments in the Fund based on the inputs used to value them as of December 31, 2023 (see Note 3 in Notes to the Financial Statements):

	Fair Value Measurements			
	Level 1	Level 2	Level 3	Total
Mutual Funds	\$ 90,383,255	\$ -	\$ -	\$ 90,383,255
Total	\$ 90,383,255	\$ -	\$ -	\$ 90,383,255

Concentration of Ownership: As of December 31, 2023, the Fund had three unitholders holding 10% or more of the outstanding units of the Fund, and aggregated to 93.6% of the Fund's total units outstanding.

Supplementary Information: Total investment purchases, sales proceeds, and realized loss for the period ended December 31, 2023, were:

	Purchases at Cost	Sales Proceeds	Realized Loss
Equity	\$ 109,430,583	\$ 18,396,296	\$ (300,246)

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Total Return Bond CIT

Statement of Assets and Liabilities December 31, 2023

Assets	
Investments in securities, at fair value (cost \$90,734,041)	\$ 90,383,255
Receivable for expense reimbursement	73,062
Receivable for fund units sold	38,473
Receivable for investment securities sold	10,636
Total assets	<u>90,505,426</u>
Liabilities	
Accrued trustee and sub-advisor fees	58,050
Payable for fund units redeemed	49,109
Accrued professional services and other operating expenses	2,271
Total liabilities	<u>109,430</u>
Net Assets	<u>\$ 90,395,996</u>

Statement of Operations For the period from March 20, 2023 (date of inception) to December 31, 2023

Investment Income (Loss)	
Income	
Interest	\$ 3,408,075
Total income	<u>3,408,075</u>
Expenses	
Trustee and sub-advisor fees	125,134
Professional services and other operating expenses	2,271
Expense reimbursement from sub-advisor	(127,405)
Total expenses	<u>-</u>
Net investment income	<u>3,408,075</u>
Realized and Unrealized Gain / Loss	
Net realized gain (loss) on:	
Investments	(300,246)
Net realized loss	<u>(300,246)</u>
Change in net unrealized gain / loss on:	
Investments	(350,786)
Change in net unrealized gain / loss	<u>(350,786)</u>
Net realized and unrealized gain / loss	<u>(651,032)</u>
Contribution from sub-advisor for acquired fund fees and expenses	<u>29,836</u>
Increase in net assets from operations	<u>\$ 2,786,879</u>

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

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Total Return Bond CIT

Statement of Changes in Net Assets For the period from March 20, 2023 (date of inception) to December 31, 2023

Increase (Decrease) in Net Assets

Operations

Net investment income	\$	3,408,075
Net realized loss		(300,246)
Change in net unrealized gain / loss		(350,786)
Contribution from sub-advisor for acquired fund fees and expenses		29,836
Increase in net assets from operations		<u>2,786,879</u>

Unit transactions

Proceeds from units issued		
Class F [^]		33,654,486
Class S [^]		76,290,579
Total proceeds from units issued		<u>109,945,065</u>

Value of units redeemed		
Class F [^]		(14,560,934)
Class S [^]		(7,775,014)
Total value of units redeemed		<u>(22,335,948)</u>
Increase in net assets resulting from unit transactions		<u>87,609,117</u>
Increase in net assets		<u>90,395,996</u>
Net assets, beginning of period		-
Net assets, end of period	\$	<u><u>90,395,996</u></u>

[^] Class F and Class S were funded on 4/27/2023 and 3/20/2023, respectively.

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

MassMutual Total Return Bond CIT

Financial Highlights

For the period from March 20, 2023 (date of inception) to December 31, 2023

Per Unit Operating Performance	Class F	Class S
Net asset value, beginning of period	\$ 10.06	\$ 10.00
Investment operations:		
Net investment income ⁽¹⁾	0.34	0.64
Net realized and unrealized gain / loss ⁽¹⁾	(0.10)	(0.34)
Contribution from sub-advisor for acquired fund fees and expenses	0.00 ⁽²⁾	0.00 ⁽²⁾
Total from investment operations	0.24	0.30
Net asset value, end of period	\$ 10.30	\$ 10.30
Total Return	2.39%[^]	3.00%[^]
Supplemental Data		
Ratio to average net assets:		
Gross expenses (excluding reimbursement)	0.27% [#]	0.27% [#]
Net expenses	0.00% [#]	0.00% [#]
Net investment income	5.04% [#]	8.30% [#]
Unit Activity		
Units, beginning of period	-	-
Issued	3,346,138	7,690,846
Redeemed	(1,463,178)	(796,908)
Units, end of period	1,882,960	6,893,938

⁽¹⁾ Based on average units outstanding.

⁽²⁾ Amount is less than \$0.005 per unit.

[^] Not annualized for periods less than one year. Class F and Class S were funded on 4/27/2023 and 3/20/2023, respectively.

[#] Annualized except audit expense.

Great Gray Collective Investment Trust
Funds Sub-Advised by MML Investment Advisers, LLC

Notes to the Financial Statements

December 31, 2023

Note 1 – Organization

Great Gray Collective Investment Trust (the "Trust") is intended to constitute an exempt trust under Section 501(a) of the Internal Revenue Code of 1986, as amended (the "Code"), and a group trust within the meaning of Rev. Rul. 81-100, as amended. The Trust is exempt from registration under the Investment Company Act of 1940, as amended, and the Securities Act of 1933, as amended. Great Gray Trust Company, LLC (the "Trustee") serves as the Trustee of the Trust.

The Trustee is responsible for maintaining and administering the Trust and its various funds (the "Funds" – see Fund Index) and also serves as the investment manager (the "Investment Manager") to the Funds. Northern Trust Company provides custody, transfer agency, and accounting services for the Funds.

On December 19, 2022, Madison Dearborn Partners, LLC ("MDP"), a registered investment adviser and leading private equity firm based in Chicago, announced an agreement with Wilmington Trust, N.A. ("WTNA"), under which investment funds controlled by MDP would acquire WTNA's Collective Investment Trust business. On April 28, 2023, the agreement was finalized and Great Gray Trust Company, LLC became the successor trustee to WTNA's CIT business. On that date, the Trust name was changed from Wilmington Trust Collective Investment Trust to Great Gray Collective Investment Trust. The Trustee is ultimately controlled by MDP. MDP and its controlled subsidiaries are the general partner to the investment funds that own substantially all of the Trustee through intermediate holding companies.

The purpose of the Trust is to allow collective investments by plan sponsors of retirement plans which qualify for exemption from federal income taxation pursuant to Section 501(a) of the Code, by reason of qualifying under Section 401(a) of the Code; tax-exempt governmental plans under Section 414(d) or Section 818(a)(6) of the Code; eligible deferred compensation plans under Section 457(b) of the Code established by a government employer; group trusts or separate accounts consisting solely of assets of the foregoing; and other investors eligible for participation in the Trust. The Trust consists of separate funds with differing investment objectives, which are available for investment by participating plans. An eligible plan may join the Trust, subject to the Trustee's acceptance, and become a participating plan by executing participation documents specified by the Trustee. Not all funds within the Trust are presented herein. The Trustee has claimed an exclusion from the definition of commodity pool operator ("CPO") under the Commodity Exchange Act and the rules of the Commodity Futures Trading Commission ("CFTC") with respect to the Funds, and is therefore not subject to CFTC registration or regulation as a CPO with respect to the Funds.

The Trustee has engaged MML Investment Advisers, LLC (the "Sub-Advisor") to provide investment advice and recommendations with respect to investment of the Funds' assets. The Trustee maintains ultimate fiduciary authority over the management of and investments made in each Fund. The Sub-Advisor is engaged pursuant to a sub-advisor agreement.

Note 2 – Significant Accounting Policies

The accompanying financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). The Funds are investment companies and follow the accounting and reporting guidance in Financial Accounting Standards Board Accounting Standards Codification Topic No. 946.

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

Notes to the Financial Statements (continued)

December 31, 2023

Net Asset Value ("NAV") – Units of each fee class of each Fund are valued each day on which the New York Stock Exchange ("NYSE") is open for trading in accordance with the valuation procedures established by the Trustee. The NAV per unit is calculated as of the close of trading on the NYSE (generally, 4:00 p.m. U.S. Eastern time). The NAV per unit is computed by dividing the total fair value of the assets of each Fund, less its liabilities, by the total number of units outstanding at the time of such computation. Investment income earned is reinvested in each Fund and included in the determination of unit values.

Fund Unit Transactions – The Funds sell new units and repurchase outstanding units on a daily basis. Unit purchases and redemptions are transacted at the NAV per fee class of the Funds determined as of the close of business each day. A summary of the Fund unit activity for each Fund is included with its Financial Highlights.

The Funds require a plan sponsor to provide advance written notice of five business days for plan sponsor directed withdrawals which will exceed \$1 million of the assets invested in each Fund.

Investment Valuation – Investments are valued at their current fair value determined as follows:

Money Market Trusts – Investments in money market trusts are valued using the net asset value per share (or its equivalent) as a practical expedient.

Mutual Funds – Investments in open-end mutual funds are valued at the daily closing net asset value of the respective fund.

Securities – Securities, other than bonds, listed on a securities exchange, market or automated quotation system for which quotations are readily available are valued at the closing price on the primary exchange or market on which they are traded on the day of valuation or, if there is no such reported sale on the valuation date, at the most recent bid quotation on the principal exchange. If a market price is not readily available or if such price is deemed unreliable, it will be valued at fair value in accordance with valuation procedures established by the Trustee. The Trustee's determination of fair value involves consideration of a number of subjective factors, and therefore, no single standard for determining fair value will apply.

When the valuation methods described above are not reflective of fair value, investments are valued at fair value following procedures and/or guidelines determined by or under the direction of the valuation committee established by the Trustee. In light of the judgment involved in fair value decisions, there can be no assurance that a fair value assigned to a particular investment is accurate.

Cash and Cash Equivalents – The Funds consider all highly liquid instruments with original maturities of three months or less at the acquisition date to be cash equivalents.

Investment Transactions and Investment Income – The Funds record security transactions on a trade date basis. Dividend income is recorded on the ex-dividend date. Net realized gains and losses on investments are determined by the first-in, first-out method. Interest income and expenses are recorded daily on the accrual basis.

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

Notes to the Financial Statements (continued)

December 31, 2023

Fee Classes and Allocations – The Funds may offer multiple fee classes. Not all fee classes are available for investment by all plans. Each class is allocated expenses on the basis of expense loads assigned to that class. Income, expenses (other than expenses attributable to a specific class), and realized and unrealized gains or losses on investments are allocated to each fee class based on the units outstanding for the fee class in proportion to the total outstanding units.

Use of Estimates – The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Guarantees and Indemnifications – Under the Funds' organizational documents, each trustee, officer, employee and agent of the Trust is indemnified, to the extent permitted by law, against certain liabilities that may arise in the performance of their duties to the Funds.

Additionally, in the normal course of business, the Funds enter into contracts that contain a variety of indemnification clauses. The Funds' maximum exposure under these arrangements is unknown as this would involve future claims that may be made against the Funds that have not yet occurred. However, the Funds have not had prior claims or losses pursuant to these contracts and the Trustee believes the risk of loss to be remote.

Income Tax Status – The Trust has received a determination from the Internal Revenue Service that the Trust is exempt from federal income taxation under Section 501(a) of the Code. Accordingly, no federal income tax provision is required.

Subsequent Events – The Trustee has evaluated the effect of subsequent events on the Funds' financial statements through April 29, 2024, which is the date the financial statements were available to be issued, and has determined that there are no material subsequent events that would require disclosure or adjustment in the Funds' financial statements through this date.

Note 3 – Fair Value Measurements

Fair value is defined as the price a fund would receive to sell an asset or pay to transfer a liability in an orderly transaction between market participants at the measurement date.

Various inputs are used in determining the fair value of the Funds' investments. The Trustee has performed an analysis of the significance and character of these inputs to the fair value determination. These inputs are summarized in the three broad levels listed below:

- Level 1 – Quoted prices in active markets for identical investments.
- Level 2 – Other significant observable inputs (including quoted prices for similar investments, interest rates, credit risk, and others).
- Level 3 – Significant unobservable inputs (including the Trustee's own assumptions in determining the fair value of investments).

Great Gray Collective Investment Trust

Funds Sub-Advised by MML Investment Advisers, LLC

Notes to the Financial Statements (continued)

December 31, 2023

The inputs or methodologies used for valuing investments are not necessarily an indication of the risk associated with investing in those investments. The aggregate fair value of the investments in each Fund, by input level used as of December 31, 2023, is included following each Fund's Schedule of Investments.

Note 4 – Fees and Expenses

Trustee and Sub-Advisor Fees

Annualized asset-based fees are based upon the net assets as determined at the end of each preceding business day as set forth in the table below (in basis points). Except as otherwise noted, all asset-based fees are paid from the assets of the Funds.

Fee Class	Trustee Fee	Sub-Advisor Fee
MassMutual Small Cap Growth Equity CIT		
Class R3	6	70
Class R4	6	66
Founders	6	60
Class CT	6	66
MassMutual Total Return Bond CIT		
Class F	6	21
Class S	6	21

Trustee Fee – The Trustee receives an annualized fee for trustee and administrative services provided to each Fund. Trustee fees are based upon the average daily value of each Fund and are accrued daily, paid quarterly in arrears and charged against the assets invested in each Fund.

Sub-Advisor Fee – The Sub-Advisor is compensated for its investment advisory services provided to each Fund. These annualized fees are based upon the average daily value of each Fund and are accrued daily, paid quarterly in arrears and charged against the assets invested in each Fund.

Operating Expenses – In addition to the fees described above, each Fund bears expenses related to its operations, including, but not limited to, audit, custody, tax and legal services. Expenses incurred in connection with the investment and reinvestment of Fund assets, including, without limitation, brokerage commission and other expenses, are also charged against each Fund.

When assets of each Fund are invested in other investment vehicles, such as other Collective Funds or Exchange-Traded Funds, those investment vehicles will incur fees and expenses, which will be reflected in the operating results and value of each Fund's investment in such investment vehicle, and are separate and distinct from the fees and expenses of each Fund described above. For the MassMutual Total Return Bond CIT, the Sub-Advisor has

Great Gray Collective Investment Trust
Funds Sub-Advised by MML Investment Advisers, LLC

Notes to the Financial Statements (continued)

December 31, 2023

agreed to reimburse the total expenses of the MassMutual Total Return Bond Fund Class I, the underlying fund. This reimbursement is accrued daily and received quarterly in arrears. Such reimbursement for the period ended December 31, 2023, is included in the Statement of Operations as contributions from Sub-Advisor for acquired fund fees and expenses.

Note 5 – Related Party Transactions

The Trustee is a Nevada-chartered non-depository trust company that provides trust and custodial services for tax-advantaged retirement plans as well as trust and investment services to business pension and retirement plans. The Trustee is responsible for managing the Trust's investment and business affairs.

Note 6 – Risks Associated with Investing in the Funds

In the normal course of business, the Funds trade financial instruments and enter into financial transactions where risk of potential loss exists due to changes in the fair value of the investments.

The following are the principal risks of the Funds and are described in the Additional Fund Information and Principal Risk Definitions (www.greatgray.com/principalriskdefinitions):

Bank Loans, Cash Drag, Convertible Securities, Credit and Counterparty, Currency, Derivatives, Distressed Investments, Dollar Rolls, Emerging Markets, Equity Securities, Fixed Income Securities, Foreign Securities, Forwards, Growth Investing, Hedging Strategies, High Portfolio Turnover, High-Yield Securities, Industry and Sector Investing, Inflation/Deflation, Interest Rate, Leverage, Management, Market/Market Volatility, Maturity/Duration, Mid-Cap, Mortgage-Backed and Asset-Backed Securities, Multi-Manager, Preferred Stocks, Quantitative Investing, Reinvestment, Repurchase Agreements, Restricted/Illiquid Securities, Small Cap, Sovereign Debt, U.S. Government Obligations, Underlying Fund/Fund of Funds, Valuation Time, Variable-Rate Securities.