



LIFE, ACCIDENT AND HEALTH COMPANIES/FRATERNAL BENEFIT SOCIETIES - ASSOCIATION EDITION

QUARTERLY STATEMENT

AS OF JUNE 30, 2024

OF THE CONDITION AND AFFAIRS OF THE

Massachusetts Mutual Life Insurance Company

NAIC Group Code 0435 0435 NAIC Company Code 65935 Employer's ID Number 04-1590850
(Current) (Prior)

Organized under the Laws of Massachusetts, State of Domicile or Port of Entry MA

Country of Domicile United States of America

Licensed as business type: Life, Accident and Health [X] Fraternal Benefit Societies []

Incorporated/Organized 05/15/1851 Commenced Business 08/01/1851

Statutory Home Office 1295 State Street, Springfield, MA, US 01111
(Street and Number) (City or Town, State, Country and Zip Code)

Main Administrative Office 1295 State Street
(Street and Number)
Springfield, MA, US 01111 413-788-8411
(City or Town, State, Country and Zip Code) (Area Code) (Telephone Number)

Mail Address 1295 State Street, Springfield, MA, US 01111
(Street and Number or P.O. Box) (City or Town, State, Country and Zip Code)

Primary Location of Books and Records 1295 State Street
(Street and Number)
Springfield, MA, US 01111 413-788-8411
(City or Town, State, Country and Zip Code) (Area Code) (Telephone Number)

Internet Website Address www.massmutual.com

Statutory Statement Contact Trevor Wade Gordon, 617-695-4321
(Name) (Area Code) (Telephone Number)
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OFFICERS

President and Chief Executive Officer Roger William Crandall Treasurer Julieta Giselle Sinisgalli
Secretary Akintokunbo Akinbajo Appointed Actuary Vy Quoc Ho

OTHER

Elizabeth Ward Chicares, Chief Financial Officer Eric William Partlan, Chief Investment Officer Geoffrey James Craddock, Chief Risk Officer
Susan Marie Cicco, Chief of Staff to the Chairman & CEO, HR & Employee Experience Michael James O'Connor, General Counsel Sears Andrew Merritt, Head of Technology & Experience
Dominic Lusean Blue, Head of Third-Party Distribution and New Markets Paul Anthony LaPiana, Head of Brand, Product and Affiliated Distribution Peter John Rugel, Head of Operations

DIRECTORS OR TRUSTEES

Roger William Crandall - Chairman Kathleen Ann Corbet James Henry DeGraffenreidt, Jr.
Isabella Davidov Goren Jeffrey Marc Leiden - Lead Director Laura Jeanne Sen
William Taylor Spitz Howard Todd Stitzer Michelle Kwok Lee
Bernard Anthony Harris, Jr.

State of Massachusetts SS:
County of Hampden

The officers of this reporting entity being duly sworn, each depose and say that they are the described officers of said reporting entity, and that on the reporting period stated above, all of the herein described assets were the absolute property of the said reporting entity, free and clear from any liens or claims thereon, except as herein stated, and that this statement, together with related exhibits, schedules and explanations therein contained, annexed or referred to, is a full and true statement of all the assets and liabilities and of the condition and affairs of the said reporting entity as of the reporting period stated above, and of its income and deductions therefrom for the period ended, and have been completed in accordance with the NAIC Annual Statement Instructions and Accounting Practices and Procedures manual except to the extent that: (1) state law may differ; or, (2) that state rules or regulations require differences in reporting not related to accounting practices and procedures, according to the best of their information, knowledge and belief, respectively. Furthermore, the scope of this attestation by the described officers also includes the related corresponding electronic filing with the NAIC, when required, that is an exact copy (except for formatting differences due to electronic filing) of the enclosed statement. The electronic filing may be requested by various regulators in lieu of or in addition to the enclosed statement.

Roger William Crandall
President and Chief Executive Officer

Akintokunbo Akinbajo
Secretary

Julieta Giselle Sinisgalli
Treasurer

Subscribed and sworn to before me this _____ day of _____

- a. Is this an original filing? Yes [X] No []
b. If no,
1. State the amendment number.....
2. Date filed
3. Number of pages attached.....

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

ASSETS

	Current Statement Date			4 December 31 Prior Year Net Admitted Assets
	1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	
1. Bonds	157,908,671,991		157,908,671,991	144,433,159,667
2. Stocks:				
2.1 Preferred stocks	548,436,507		548,436,507	446,025,402
2.2 Common stocks	28,160,671,984		28,160,671,984	27,118,688,202
3. Mortgage loans on real estate:				
3.1 First liens	24,284,086,221		24,284,086,221	24,020,648,754
3.2 Other than first liens.....				
4. Real estate:				
4.1 Properties occupied by the company (less \$ encumbrances)	343,708,224		343,708,224	351,331,874
4.2 Properties held for the production of income (less \$283,585,000 encumbrances)	(30,222,570)		(30,222,570)	(23,858,115)
4.3 Properties held for sale (less \$ encumbrances)	1,954,867		1,954,867	1,954,867
5. Cash (\$687,314,914), cash equivalents (\$2,773,050,825) and short-term investments (\$1,348,205,810)	4,808,571,549		4,808,571,549	11,134,092,248
6. Contract loans (including \$ premium notes)	16,666,346,520	136,235	16,666,210,285	15,897,270,556
7. Derivatives	22,876,929,946		22,876,929,946	20,739,767,594
8. Other invested assets	14,045,422,821	66,948,339	13,978,474,482	12,907,368,797
9. Receivables for securities	3,227,333,492		3,227,333,492	2,400,967,375
10. Securities lending reinvested collateral assets				
11. Aggregate write-ins for invested assets				
12. Subtotals, cash and invested assets (Lines 1 to 11)	272,841,911,550	67,084,574	272,774,826,976	259,427,417,222
13. Title plants less \$ charged off (for Title insurers only)				
14. Investment income due and accrued	4,716,380,668	11,754,452	4,704,626,216	5,236,485,893
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection	170,840,083		170,840,083	204,175,733
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ earned but unbilled premiums)	1,085,169,470		1,085,169,470	1,140,428,115
15.3 Accrued retrospective premiums (\$) and contracts subject to redetermination (\$)				
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers	92,856,212	4,125,162	88,731,050	92,038,010
16.2 Funds held by or deposited with reinsured companies				
16.3 Other amounts receivable under reinsurance contracts	36,192,770		36,192,770	52,250,187
17. Amounts receivable relating to uninsured plans				
18.1 Current federal and foreign income tax recoverable and interest thereon	224,781,485		224,781,485	280,008,382
18.2 Net deferred tax asset	2,064,157,182	63,901,126	2,000,256,056	1,659,507,058
19. Guaranty funds receivable or on deposit	6,851,892		6,851,892	6,955,326
20. Electronic data processing equipment and software	253,291,540	245,603,189	7,688,351	9,897,105
21. Furniture and equipment, including health care delivery assets (\$)	35,016,063	35,016,063		
22. Net adjustment in assets and liabilities due to foreign exchange rates				
23. Receivables from parent, subsidiaries and affiliates	149,996,759		149,996,759	132,270,480
24. Health care (\$) and other amounts receivable				
25. Aggregate write-ins for other than invested assets	5,502,930,630	1,165,722,646	4,337,207,984	4,032,031,189
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	287,180,376,305	1,593,207,213	285,587,169,093	272,273,464,700
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts	50,765,171,573		50,765,171,573	52,592,632,278
28. Total (Lines 26 and 27)	337,945,547,878	1,593,207,213	336,352,340,665	324,866,096,978
DETAILS OF WRITE-INS				
1101.				
1102.				
1103.				
1198. Summary of remaining write-ins for Line 11 from overflow page				
1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)				
2501. Corporate owned life insurance	2,936,353,486		2,936,353,486	2,828,205,253
2502. Admitted disallowed interest maintenance reserve	1,284,508,080		1,284,508,080	1,111,554,018
2503. Fully refundable deposits, prepayments and miscellaneous assets	91,070,274	32,396,341	58,673,933	19,265,947
2598. Summary of remaining write-ins for Line 25 from overflow page	1,190,998,790	1,133,326,305	57,672,485	73,005,971
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	5,502,930,630	1,165,722,646	4,337,207,984	4,032,031,189

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

LIABILITIES, SURPLUS AND OTHER FUNDS

	1 Current Statement Date	2 December 31 Prior Year
1. Aggregate reserve for life contracts \$ 169,179,768,261 less \$ included in Line 6.3 (including \$ 154,071,016 Modco Reserve)	169,179,768,261	163,889,051,584
2. Aggregate reserve for accident and health contracts (including \$ Modco Reserve)	3,397,549,138	3,360,552,794
3. Liability for deposit-type contracts (including \$ Modco Reserve).....	20,218,096,594	19,645,255,949
4. Contract claims:		
4.1 Life	540,597,586	633,182,086
4.2 Accident and health	26,014,134	33,564,125
5. Policyholders' dividends/refunds to members \$ 9,515,474 and coupons \$ due and unpaid	9,515,474	9,254,468
6. Provision for policyholders' dividends, refunds to members and coupons payable in following calendar year - estimated amounts:		
6.1 Policyholders' dividends and refunds to members apportioned for payment (including \$ Modco)	2,202,590,212	2,141,066,555
6.2 Policyholders' dividends and refunds to members not yet apportioned (including \$ Modco)		
6.3 Coupons and similar benefits (including \$ Modco)		
7. Amount provisionally held for deferred dividend policies not included in Line 6		
8. Premiums and annuity considerations for life and accident and health contracts received in advance less \$ discount; including \$ 9,291,135 accident and health premiums	47,059,086	38,215,715
9. Contract liabilities not included elsewhere:		
9.1 Surrender values on canceled contracts		
9.2 Provision for experience rating refunds, including the liability of \$ accident and health experience rating refunds of which \$ is for medical loss ratio rebate per the Public Health Service Act	11,315,569	9,106,171
9.3 Other amounts payable on reinsurance, including \$ (18,028,646) assumed and \$ (172,932,404) ceded	(190,961,049)	(103,090,801)
9.4 Interest Maintenance Reserve		
10. Commissions to agents due or accrued-life and annuity contracts \$ 23,176,013 , accident and health \$ 89,513 and deposit-type contract funds \$	23,265,526	9,625,510
11. Commissions and expense allowances payable on reinsurance assumed	3,156,426	3,320,775
12. General expenses due or accrued	876,312,256	1,048,795,743
13. Transfers to Separate Accounts due or accrued (net) (including \$ (56,733,355) accrued for expense allowances recognized in reserves, net of reinsured allowances)	(72,453,168)	(65,765,348)
14. Taxes, licenses and fees due or accrued, excluding federal income taxes	81,506,119	84,906,665
15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses)		
15.2 Net deferred tax liability		
16. Unearned investment income	268,036,465	135,905,616
17. Amounts withheld or retained by reporting entity as agent or trustee	9,003,355	12,835,742
18. Amounts held for agents' account, including \$ agents' credit balances	437,492,387	426,661,742
19. Remittances and items not allocated	2,076,965,592	1,705,616,370
20. Net adjustment in assets and liabilities due to foreign exchange rates		
21. Liability for benefits for employees and agents if not included above	254,356,309	246,654,418
22. Borrowed money \$ 991,852,962 and interest thereon \$ 6,867,046	998,720,008	49,925,247
23. Dividends to stockholders declared and unpaid		
24. Miscellaneous liabilities:		
24.01 Asset valuation reserve	6,541,427,179	5,989,190,148
24.02 Reinsurance in unauthorized and certified (\$) companies	115,821	27,834
24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers	2,183,284,188	2,529,465,283
24.04 Payable to parent, subsidiaries and affiliates	50,099,024	50,720,306
24.05 Drafts outstanding		
24.06 Liability for amounts held under uninsured plans		
24.07 Funds held under coinsurance	23,293,364,857	19,990,769,251
24.08 Derivatives	15,920,138,843	13,734,130,858
24.09 Payable for securities	842,075,918	117,816,919
24.10 Payable for securities lending		
24.11 Capital notes \$ and interest thereon \$		
25. Aggregate write-ins for liabilities	8,041,511,813	7,807,955,363
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25)	257,269,923,923	243,534,717,089
27. From Separate Accounts Statement	50,625,836,908	52,454,718,896
28. Total liabilities (Lines 26 and 27)	307,895,760,830	295,989,435,985
29. Common capital stock		
30. Preferred capital stock		
31. Aggregate write-ins for other than special surplus funds		
32. Surplus notes	4,826,926,140	4,876,802,621
33. Gross paid in and contributed surplus		
34. Aggregate write-ins for special surplus funds	1,287,758,080	1,114,804,018
35. Unassigned funds (surplus)	22,341,895,614	22,885,054,353
36. Less treasury stock, at cost:		
36.1 shares common (value included in Line 29 \$)		
36.2 shares preferred (value included in Line 30 \$)		
37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ 139,334,665 in Separate Accounts Statement)	28,456,579,835	28,876,660,992
38. Totals of Lines 29, 30 and 37	28,456,579,835	28,876,660,992
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	336,352,340,665	324,866,096,978
DETAILS OF WRITE-INS		
2501. Repurchase agreements	3,446,926,268	3,227,108,863
2502. Derivative accrued interest	2,669,487,695	2,386,752,991
2503. Derivative collateral	1,765,600,785	2,072,571,263
2598. Summary of remaining write-ins for Line 25 from overflow page	159,497,066	121,522,246
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	8,041,511,813	7,807,955,363
3101.		
3102.		
3103.		
3198. Summary of remaining write-ins for Line 31 from overflow page		
3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)		
3401. Admitted disallowed interest maintenance reserve	1,284,508,080	1,111,554,018
3402. Designated surplus for group annuities	2,500,000	2,500,000
3403. Designated surplus for separate account business	750,000	750,000
3498. Summary of remaining write-ins for Line 34 from overflow page		
3499. Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)	1,287,758,080	1,114,804,018

SUMMARY OF OPERATIONS

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
1. Premiums and annuity considerations for life and accident and health contracts	9,918,086,689	10,930,262,939	25,461,467,176
2. Considerations for supplementary contracts with life contingencies	13,840,668	10,156,954	28,424,802
3. Net investment income	5,384,416,827	4,862,813,846	11,091,015,806
4. Amortization of Interest Maintenance Reserve (IMR)	(55,325,712)	(27,776,827)	(50,968,196)
5. Separate Accounts net gain from operations excluding unrealized gains or losses	352,722	1,106,022	3,015,196
6. Commissions and expense allowances on reinsurance ceded	292,191,727	222,245,722	488,791,083
7. Reserve adjustments on reinsurance ceded	4,200,824	(5,016,266)	(13,490,977)
8. Miscellaneous Income:			
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	117,838,751	119,167,348	220,739,651
8.2 Charges and fees for deposit-type contracts			
8.3 Aggregate write-ins for miscellaneous income	189,406,534	151,863,783	331,833,055
9. Totals (Lines 1 to 8.3)	15,865,009,029	16,264,823,521	37,560,827,597
10. Death benefits	1,279,053,522	1,364,868,363	2,526,241,831
11. Matured endowments (excluding guaranteed annual pure endowments)	5,010,995	4,279,221	8,982,646
12. Annuity benefits	1,508,283,080	1,298,136,548	2,695,482,871
13. Disability benefits and benefits under accident and health contracts	187,866,446	183,254,175	371,189,947
14. Coupons, guaranteed annual pure endowments and similar benefits			
15. Surrender benefits and withdrawals for life contracts	4,583,964,510	7,225,870,607	11,142,698,595
16. Group conversions			
17. Interest and adjustments on contract or deposit-type contract funds	374,462,425	262,216,873	569,644,551
18. Payments on supplementary contracts with life contingencies	12,668,878	18,109,386	25,575,546
19. Increase in aggregate reserves for life and accident and health contracts	5,308,464,713	3,362,146,862	13,871,643,209
20. Totals (Lines 10 to 19)	13,259,774,570	13,718,882,036	31,211,459,196
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	660,150,904	622,941,377	1,374,686,112
22. Commissions and expense allowances on reinsurance assumed	23,319,846	24,562,719	48,294,050
23. General insurance expenses and fraternal expenses	1,165,909,138	1,101,930,262	2,360,845,734
24. Insurance taxes, licenses and fees, excluding federal income taxes	170,939,319	178,991,977	329,009,616
25. Increase in loading on deferred and uncollected premiums	(31,757,582)	(22,963,562)	29,347,609
26. Net transfers to or (from) Separate Accounts net of reinsurance	(1,105,211,377)	(743,470,237)	(1,598,760,115)
27. Aggregate write-ins for deductions	373,582,680	520,265,525	1,094,400,862
28. Totals (Lines 20 to 27)	14,516,707,497	15,401,140,097	34,849,283,063
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	1,348,301,532	863,683,424	2,711,544,533
30. Dividends to policyholders and refunds to members	1,012,435,701	921,185,612	2,131,090,746
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	335,865,831	(57,502,188)	580,453,788
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	131,610,965	133,930,533	115,966,921
33. Net gain from operations after dividends to policyholders, refunds to members and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32)	204,254,866	(191,432,720)	464,486,867
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ (12,266,090) (excluding taxes of \$ (34,353,992) transferred to the IMR)	(273,220,791)	(443,205,699)	(489,729,328)
35. Net income (Line 33 plus Line 34)	(68,965,925)	(634,638,419)	(25,242,461)
CAPITAL AND SURPLUS ACCOUNT			
36. Capital and surplus, December 31, prior year	28,876,660,992	27,941,058,515	27,941,058,515
37. Net income (Line 35)	(68,965,925)	(634,638,419)	(25,242,461)
38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (45,962,227)	388,871,421	(534,988,832)	8,465,308
39. Change in net unrealized foreign exchange capital gain (loss)	(125,674,067)	207,514,263	375,952,061
40. Change in net deferred income tax	243,415,828	263,415,736	462,403,744
41. Change in nonadmitted assets	10,316,727	(239,285,162)	364,943,115
42. Change in liability for reinsurance in unauthorized and certified companies	(87,987)	(130,111)	82,068
43. Change in reserve on account of change in valuation basis, (increase) or decrease			
44. Change in asset valuation reserve	(552,237,031)	(6,167,544)	(314,845,291)
45. Change in treasury stock			
46. Surplus (contributed to) withdrawn from Separate Accounts during period			
47. Other changes in surplus in Separate Accounts Statement	1,068,562	288,058	4,600,052
48. Change in surplus notes	(49,876,481)	(25,000,000)	(149,159,227)
49. Cumulative effect of changes in accounting principles			
50. Capital changes:			
50.1 Paid in			
50.2 Transferred from surplus (Stock Dividend)			
50.3 Transferred to surplus			
51. Surplus adjustment:			
51.1 Paid in			
51.2 Transferred to capital (Stock Dividend)			
51.3 Transferred from capital			
51.4 Change in surplus as a result of reinsurance			
52. Dividends to stockholders			
53. Aggregate write-ins for gains and losses in surplus	(266,912,205)	(49,100,218)	208,403,108
54. Net change in capital and surplus for the year (Lines 37 through 53)	(420,081,158)	(1,018,092,228)	935,602,477
55. Capital and surplus, as of statement date (Lines 36 + 54)	28,456,579,835	26,922,966,287	28,876,660,992
DETAILS OF WRITE-INS			
08.301. Change in corporate owned life insurance asset	110,623,864	98,677,738	216,660,794
08.302. Experience refunds on reinsurance contracts	54,011,512	38,814,687	86,980,575
08.303. Management and administrative fees	44,718,535	47,972,931	59,835,188
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	(19,947,378)	(33,601,573)	(31,643,502)
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	189,406,534	151,863,783	331,833,055
2701. Ceded income on funds withheld	485,376,735	503,145,875	985,400,386
2702. Change in liability for employee/agent benefit plans	39,390,928	48,693,625	88,714,201
2703. Reinsurance ceded adjustment	(144,922,754)	(340,465)	44,856,953
2798. Summary of remaining write-ins for Line 27 from overflow page	(6,262,229)	(31,233,510)	(24,570,678)
2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	373,582,680	520,265,525	1,094,400,862
5301. Deferred gain on reinsurance ceded	(144,922,754)	(340,465)	44,856,953
5302. Other changes in surplus	(125,007,478)	(48,759,753)	170,832,314
5303. Change in minimum pension liability	3,018,027		(7,286,158)
5398. Summary of remaining write-ins for Line 53 from overflow page			
5399. Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(266,912,205)	(49,100,218)	208,403,108

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

CASH FLOW

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
Cash from Operations			
1. Premiums collected net of reinsurance	10,156,343,500	11,110,285,492	25,363,484,358
2. Net investment income	6,045,638,038	5,685,487,510	12,269,139,053
3. Miscellaneous income	574,830,224	468,898,415	1,054,601,777
4. Total (Lines 1 to 3)	16,776,811,762	17,264,671,417	38,687,225,188
5. Benefit and loss related payments	7,890,439,873	10,311,976,823	17,076,611,316
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(1,098,523,557)	(745,410,443)	(1,610,775,196)
7. Commissions, expenses paid and aggregate write-ins for deductions	2,540,350,583	2,528,755,443	5,208,228,387
8. Dividends paid to policyholders	956,794,266	860,296,080	1,907,965,269
9. Federal and foreign income taxes paid (recovered) net of \$ 24,702,786 tax on capital gains (losses)	(6,588,530)	(190,272,361)	(57,654,551)
10. Total (Lines 5 through 9)	10,282,472,635	12,765,345,542	22,524,375,225
11. Net cash from operations (Line 4 minus Line 10)	6,494,339,127	4,499,325,875	16,162,849,963
Cash from Investments			
12. Proceeds from investments sold, matured or repaid:			
12.1 Bonds	18,365,030,271	10,774,629,764	23,801,327,958
12.2 Stocks	204,143,288	48,506,733	395,298,083
12.3 Mortgage loans	1,200,821,035	1,448,891,169	3,621,286,255
12.4 Real estate	(915,000)		4,988,624
12.5 Other invested assets	443,102,138	623,371,459	1,830,189,125
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	(30,222,247)	(192,672,623)	(388,147,108)
12.7 Miscellaneous proceeds	(1,072,432,113)	(445,173,771)	(344,426,899)
12.8 Total investment proceeds (Lines 12.1 to 12.7)	19,109,527,372	12,257,552,731	28,920,516,038
13. Cost of investments acquired (long-term only):			
13.1 Bonds	32,142,470,965	14,308,672,539	32,278,452,167
13.2 Stocks	602,693,212	273,095,603	572,212,803
13.3 Mortgage loans	1,821,685,877	1,050,363,621	2,895,795,779
13.4 Real estate	608,863	2,997,090	8,066,745
13.5 Other invested assets	1,491,902,462	1,552,570,898	2,988,354,735
13.6 Miscellaneous applications	(848,008,433)	(435,131,571)	(154,474,332)
13.7 Total investments acquired (Lines 13.1 to 13.6)	35,211,352,946	16,752,568,180	38,588,407,897
14. Net increase (or decrease) in contract loans and premium notes	770,173,784	(2,047,205,111)	(1,157,907,322)
15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	(16,871,999,358)	(2,447,810,338)	(8,509,984,537)
Cash from Financing and Miscellaneous Sources			
16. Cash provided (applied):			
16.1 Surplus notes, capital notes	(50,000,000)	(25,000,000)	(150,000,000)
16.2 Capital and paid in surplus, less treasury stock			
16.3 Borrowed funds	947,734,506	(199,281,878)	(199,308,011)
16.4 Net deposits on deposit-type contracts and other insurance liabilities	397,765,015	735,013,570	1,237,555,120
16.5 Dividends to stockholders			
16.6 Other cash provided (applied)	2,756,640,011	(2,539,921,639)	(2,975,083,742)
17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	4,052,139,532	(2,029,189,947)	(2,086,836,633)
RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS			
18. Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17)	(6,325,520,699)	22,325,590	5,566,028,793
19. Cash, cash equivalents and short-term investments:			
19.1 Beginning of year	11,134,092,248	5,568,063,455	5,568,063,455
19.2 End of period (Line 18 plus Line 19.1)	4,808,571,549	5,590,389,045	11,134,092,248

Note: Supplemental disclosures of cash flow information for non-cash transactions:

20.0001. Stock conversions	4,098,336,433	167,785,455	202,079,934
20.0002. Bond conversions and refinancing	379,557,531	199,846,455	1,460,001,947
20.0003. Transfer of mortgage loans to partnerships and limited liability companies	135,000,035		51,000
20.0004. Change in market value of corporate owned life insurance asset	110,997,876	99,017,375	217,357,562
20.0005. Transfer of mortgage loans to bonds	84,700,730	2,801,548	132,143,002
20.0006. Transfer of partnerships and limited liability companies to partnerships and limited liability companies	76,268,461		277,380,541
20.0007. Transfer of mortgage loans to mortgage loans	17,018,141		
20.0008. Net investment income payment-in-kind bonds	15,683,351	7,279,854	14,051,555
20.0009. Transfer of partnerships and limited liability companies to stock	88,108		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

Note: Supplemental disclosures of cash flow information for non-cash transactions:

20.0010. Short-term investments transferred to bonds	44,704		
20.0011. Bonds transferred to partnerships and limited liability companies		121,797,363	121,797,363
20.0012. Transfer of partnerships and limited liability companies to bonds			99,952,756
20.0013. Transfer of mortgage loans to short-term investments			59,966,220
20.0014. Transfer of stocks to partnerships and limited liability companies			37,671,997
20.0015. Accrued discount on mortgage loans			9,652,778
20.0016. Transfer of partnerships and limited liability companies to stocks			2,569,232

EXHIBIT 1**DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS**

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
1. Individual life	4,799,403,848	4,738,030,099	10,603,566,024
2. Group life	105,803,539	136,985,513	227,192,193
3. Individual annuities	6,341,213,959	5,585,878,812	15,537,144,158
4. Group annuities	3,808,096,811	3,501,947,217	7,049,547,820
5. Accident & health	390,074,458	385,405,342	777,260,267
6. Fraternal			
7. Other lines of business			
8. Subtotal (Lines 1 through 7)	15,444,592,615	14,348,246,984	34,194,710,461
9. Deposit-type contracts	3,675,267,237	3,458,835,781	5,547,846,885
10. Total (Lines 8 and 9)	19,119,859,852	17,807,082,765	39,742,557,346

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NOTES TO FINANCIAL STATEMENTS

Note 1 – Summary of Significant Accounting Policies and Going Concern

a. Accounting practices:

The accompanying financial statements of Massachusetts Mutual Life Insurance Company (the Company) have been prepared in conformity with the Statutory Accounting Practices (SAP) of the National Association of Insurance Commissioners (NAIC) and the accounting practices prescribed or permitted by the Commonwealth of Massachusetts Division of Insurance (the Division).

A reconciliation of the Company's net income and capital and surplus between NAIC SAP and practices prescribed and permitted by the State of Connecticut is shown below:

	SSAP #	F/S Page	F/S Line #	2024	2023
NET INCOME					
(1) State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$ (68,965,925)	\$ (25,242,461)
(2) State prescribed practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(3) State permitted practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$ <u>(68,965,925)</u>	\$ <u>(25,242,461)</u>
SURPLUS					
(5) State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$ 28,456,579,835	\$ 28,876,660,992
(6) State prescribed practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(7) State permitted practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(8) NAIC SAP (5-6-7=8)	XXX	XXX	XXX	\$ <u>28,456,579,835</u>	\$ <u>28,876,660,992</u>

b. Use of estimates in the preparation of the financial statements - No change

c. Accounting policy:

(1) No change

(2) Bonds are generally valued at amortized cost using the constant yield interest method with the exception of NAIC Category 6 bonds, which are in or near default, and certain residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), which are rated by outside modelers, which are carried at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bond transactions are recorded on a trade date basis, except for private placement bonds, which are recorded on the funding date.

The fair value of bonds is based on quoted market prices when available. If quoted market prices are not available, values provided by other third-party organizations are used. If values provided by other third-party organizations are unavailable, fair value is estimated using internal models by discounting expected future cash flows using observable current market rates applicable to yield, credit quality and maturity of the investment or using quoted market values for comparable investments. Internal inputs used in the determination of fair value include estimated prepayment speeds, default rates, discount rates and collateral values, among others. Structure characteristics and cash flow priority are also considered. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants.

(3-5) No change

(6) For loan-backed and structured securities, such as asset-backed securities, mortgage-backed securities, including RMBS and CMBS, and structured securities, including collateralized debt obligations, amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies.

Certain fixed income securities with the highest ratings from a rating agency follow the retrospective method of accounting. Under the retrospective method, the recalculated effective yield equates the present value of the actual and anticipated cash flows, including new prepayment assumptions, to the original cost of the investment. Prepayment assumptions are based on borrower constraints and economic incentives such as the original term, age and coupon of the loan as affected by the interest rate environment. The current carrying value is then increased or decreased to the amount that would have resulted had the revised yield been applied since inception, and investment income is correspondingly decreased or increased.

All other fixed income securities, such as floating rate bonds and interest only securities, including those that have been impaired, follow the prospective method of accounting. Under the prospective method, the recalculated future effective yield equates the carrying value of the investment to the present value of the anticipated future cash flows.

(7-14) No change

d. Going concern:

There is not substantial doubt regarding the Company's ability to continue as a going concern.

NOTES TO FINANCIAL STATEMENTS

Note 2 – Accounting Changes and Corrections of Errors

- a. For the six months ended June 30, 2024, corrections of prior years' errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		
	Prior Years' Net Income	Current Year Surplus	Asset or Liability Balances
Investment income due and accrued	\$ (85,393,938)	\$ (85,393,938)	\$ (85,393,938)
Other Liabilities	(18,605,934)	(18,605,934)	(18,605,934)
Bonds	(18,514,677)	(18,514,677)	(18,514,677)
Common stocks	(789,348)	(789,348)	(789,348)
Cash, cash equivalents and short-term investments	15,639,645	15,639,645	15,639,645
Policyholders' reserves	(15,206,010)	(15,206,010)	(15,206,010)
Partnerships and limited liability companies	(2,803,108)	(2,803,108)	(2,803,108)
Mortgage loans	316,572	316,572	316,572
Total	<u>\$ (125,673,370)</u>	<u>\$ (125,673,370)</u>	

Of the \$125,673,370 decrease to surplus for prior years' errors, \$125,673,370 was recorded as prior period adjustments, net of taxes.

- For the six months ended June 30, 2023, corrections of prior years' errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		
	Prior Years' Net Income	Current Year Surplus	Asset or Liability Balances
Other Liabilities	\$ (43,445,251)	\$ (43,445,251)	\$ 43,445,251
Policyholders' reserves	(127,766,700)	(127,766,700)	127,766,700
Derivative assets	-	(124,676,448)	(124,676,448)
Investment income due and accrued	124,676,448	124,676,448	124,676,448
Derivative liabilities	-	41,513,416	(41,513,416)
Total	<u>\$ (46,535,503)</u>	<u>\$ (129,698,535)</u>	

Of the \$129,698,535 decrease to surplus for prior years' errors, \$46,535,503 was recorded as prior period adjustments and \$83,163,032 was recorded as a change in net realized capital gains (losses), net of taxes.

- b. Adoption of new accounting standards

In August 2023, the NAIC adopted INT 23-01T — Disallowed IMR ("INT 23-01T"). INT 23-01T provides optional, limited-term guidance for the assessment of disallowed IMR for up to 10% of adjusted general account capital and surplus. An insurer's capital and surplus must first be adjusted to exclude certain "soft assets" including net positive goodwill, electronic data processing equipment and operating system software, net deferred tax assets and admitted disallowed IMR. An insurer will only be able to admit the negative IMR if the insurer's risk-based capital is over 300% authorized control level after adjusting to remove the assets described above.

As adopted, negative IMR may be admitted first in the insurer's general account and then, if all disallowed IMR in the general account is admitted and the percentage limit is not reached, to the separate account proportionately between insulated and noninsulated accounts. If the insurer can demonstrate historical practice in which acquired gains from derivatives were also reversed to IMR (as liabilities) and amortized, there is no exclusion for derivatives losses. INT 23-01T was adopted by the Company as of September 30, 2023 and will be effective through December 31, 2025. To the extent the Company's IMR balance is a net negative, the effects of INT 23-01T will be reflected in the Company's financial position, results of operations, and financial statement disclosures. The Company has adopted this guidance and the adoption resulted in an admitted disallowed IMR of \$926,910,218 for the Company as of September 30, 2023.

In March 2023, the NAIC adopted modifications to SSAP No. 34 – Investment Income Due and Accrued, effective December 31, 2023. The modifications require additional disclosures and data capture related to gross, non-admitted and admitted amounts for interest income due and accrued, deferred interest, and paid-in-kind (PIK) interest. In August 2023, the NAIC adopted revisions to further clarify the PIK interest disclosure in SSAP No. 34, effective December 31, 2023. The revisions clarify that decreasing amounts to principal balances are first applied to any PIK interest included in the principal balance. The original principal would not be reduced until the PIK interest had been fully eliminated from the balance. The revisions also provide a practical expedient for determining the PIK interest in the cumulative balance by subtracting the original principal/ par value from the current principal/ par value, with the resulting PIK interest not to go less than zero. The modifications did not have a material effect on the Company's financial statements.

In December 2023, the NAIC adopted revisions, effective January 1, 2024, to avoid allocating realized gains or losses from bond sales to IMR when sold before a rating downgrade. Revisions were also made to avoid allocating realized gains or losses from mortgage loan sales when there is a credit loss allowance, but payments are not 90 days past due. Revisions were also made to update guidance on changes in credit ratings used to allocate credit or interest rate related gains or losses, requiring identification of realized losses from acute credit events to be allocated to AVR. The modifications did not have a material effect on the Company's impact of PIK in relation to the financial statements.

In March 2024, the NAIC adopted revisions to the requirements of audit and admissibility in SSAP No. 97 – Investments in Subsidiary, Controlled and Affiliated Entities, effective March 16, 2024, to better align with the guidance on the look-through methodology. The revisions allow for admitting audited investments in entities owned by unaudited downstream noninsurance holding company SCA entity. The modifications did not have a material effect on the Company's financial statements.

In August 2023, the NAIC adopted revisions to clarify and incorporate a new bond definition within disclosures SSAP No. 26 – Bonds, SSAP No. 43 – Asset-Backed Securities, and other related SSAPs, which will become effective January 1, 2025. The revisions were issued in connection with its principle-based bond definition project, "the Bond Project".

The Bond Project began in October 2020 through the development of a principle-based bond definition to be used for all securities in determining whether they qualify for reporting on the statutory annual statement Schedule D. Within the new bond definition, bonds are classified as an "issuer credit obligation" or an "asset-backed security."

NOTES TO FINANCIAL STATEMENTS

An “issuer credit obligation” is defined as a bond where repayment is supported by the general creditworthiness of an operating entity, and an “asset-backed security” is defined as a bond issued by an entity created for the primary purpose of raising capital through debt backed by financial assets. The revisions to SSAP No. 26 reflect the principle-based bond definition, and SSAP No. 43 provides accounting and reporting guidance for investments that qualify as asset-backed securities under the new bond definition. Upon adoption, investments that do not qualify as bonds will not be permitted to be reported as bonds on Schedule D, Part 1 thereafter as there will be no grandfathering for existing investments that do not qualify under the revised SSAPs. The Company is currently assessing the impacts of the adopted SSAP No. 26, SSAP No. 43 and other related SSAPs in relation to the financial statements.

In March 2024, the NAIC adopted revisions to SSAP No. 21R - Other Admitted Assets, effective January 1, 2025, clarifying that residuals follow the effective yield approach with a cap and providing an election for the cost recovery method. The modifications are not expected to have a material effect on the Company’s financial statements.

Effective January 1, 2025, revisions will be made to short-term investments, which include excluding additional investment types from being reported as cash equivalents or short-term investments regardless of maturity date of the investment at the date of acquisition. Investments will be eliminated from being reported as cash equivalents or short-term investments unless they would qualify under SSAP No. 26R—Bonds as an issuer credit obligation. Such investments will then only qualify as a cash equivalent or short-term investment if they have a maturity date within 3-months (cash equivalents) or 12-months (short-term) from the date of acquisition or meet the specifics requirements for money market mutual funds or cash pooling arrangement.

The NAIC adopted revisions to various SSAPs at the Spring National Meeting for investments in tax credits and acquired tax credits in response to the comments received, as well as updated annual statement reporting categories for tax credit investment risk-based capital. These revisions are in addition to the previous ones, which include broad criteria to scope in various tax credit programs, including solar programs and state specific programs. Proportional amortization will be the measurement approach as with existing LIHTC, which means recording amortization of the investment in the partnership through net investment income and use of the tax credits in the appropriate tax line. The adopted revisions will be effective on January 1, 2025. The Company is assessing the potential impact on the Company’s financial statements.

Note 3 – Business Combinations and Goodwill - No change

Note 4 – Discontinued Operations - No change

Note 5 – Investments

a. Mortgage loans, including mezzanine real estate loans

- (5) Investment in impaired loans with or without allowance for credit losses and impaired loans subject to a participant or co-lender mortgage loan agreement for which the reporting entity is restricted from unilaterally foreclosing on the mortgage loan:

	Residential			Commercial		Mezzanine	Total
	Farm	Insured	All Other	Insured	All Other		
a. 2024							
1. With allowance for credit losses	\$ - \$	-	-	-	-	-	-
2. No allowance for credit losses	-	-	-	-	-	-	-
3. Total (1+2)	-	-	-	-	517,705,707	-	517,705,707
4. Subject to a participant or co-lender mortgage loan agreement for which the reporting entity is restricted from unilaterally foreclosing on the mortgage loan	-	-	-	-	-	-	-
b. 2023							
1. With allowance for credit losses	\$ - \$	-	-	-	-	-	-
2. No allowance for credit losses	-	-	-	-	-	-	-
3. Total (1+2)	-	-	-	-	-	-	-
4. Subject to a participant or co-lender mortgage loan agreement for which the reporting entity is restricted from unilaterally foreclosing on the mortgage loan	-	-	-	-	-	-	-

NOTES TO FINANCIAL STATEMENTS

- (6) Investment in impaired loans - average recorded investment, interest income recognized, recorded investment on nonaccrual status and amount of interest income recognized using a cash-basis method of accounting:

	Residential			Commercial		Mezzanine	Total
	Farm	Insured	All Other	Insured	All Other		
a. 2024							
1. Average recorded investment	\$ -	\$ -	\$ -	\$ -	\$ 555,930,402	\$ -	\$ 555,930,402
2. Interest income recognized	-	-	-	-	6,724,502	-	6,724,502
3. Recorded investment on nonaccrual status	-	-	-	-	124,483,871	-	124,483,871
4. Amount of interest income recognized using a cash-basis method of accounting	-	-	-	-	-	-	-
b. 2023							
1. Average recorded investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2. Interest income recognized	-	-	-	-	-	-	-
3. Recorded investment on nonaccrual status	-	-	-	-	-	-	-
4. Amount of interest income recognized using a cash-basis method of accounting	-	-	-	-	-	-	-

	June 30, 2024	December 31, 2023
(7) Allowance for credit losses:		
a. Balance at beginning of period	\$ (157,357,251)	\$ -
b. Additions charged to operations	(74,968,622)	(170,932,775)
c. Direct write-downs charged against the allowances	-	789,452
d. Recoveries of amounts previously charged off	-	12,786,072
e. Balance at end of period	<u>\$ (232,325,873)</u>	<u>\$ (157,357,251)</u>

- (8) As of June 30, 2024, the Company did not have any mortgage loans derecognized as a result of foreclosure.

- b. Debt restructuring - No change
c. Reverse mortgages - No change

NOTES TO FINANCIAL STATEMENTS

d. Loan-backed securities:

(1) Prepayment assumptions for loan-backed and structured securities are based on various assumptions and inputs obtained from external industry sources along with internal analysis and actual experience.

(2) The following contains loan-backed and structured securities that recognized other-than-temporary impairments (OTTI) classified on the following bases for recognizing OTTI:

(1) Amortized Cost Basis Before OTTI	(2) OTTI Recognized in Loss		(3) Fair Value 1-(2a+2b)
	(2a) Interest	(2b) Non-interest	

OTTI recognized in the first quarter

a. Intent to sell	\$	-	\$	-	\$	-
b. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		<u>36,924,401</u>	-	<u>2,945,206</u>	<u>33,979,195</u>	
c. Total first quarter	<u>\$</u>	<u>36,924,401</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>33,979,195</u>

OTTI recognized in the second quarter

d. Intent to sell	\$	-	\$	-	\$	-
e. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		<u>54,957,279</u>	-	<u>5,923,757</u>	<u>49,033,522</u>	
f. Total second quarter	<u>\$</u>	<u>54,957,279</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>49,033,522</u>

OTTI recognized in the third quarter

g. Intent to sell	\$	-	\$	-	\$	-
h. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		-	-	-	-	
i. Total third quarter	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>

OTTI recognized in the fourth quarter

j. Intent to sell	\$	-	\$	-	\$	-
k. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		-	-	-	-	
l. Total fourth quarter	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>

m. Annual aggregate total

<u>\$</u>	<u>-</u>	<u>\$</u>	<u>8,868,963</u>
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All impairments were taken due to the present value of cash flows expected to be collected being less than the amortized cost basis.

(3) The following is a CUSIP detail list of impaired structured securities where the present value of cash flows expected to be collected is less than the amortized cost basis.

NOTES TO FINANCIAL STATEMENTS

CUSIP	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value at Time of OTTI	Date of Financial Instrument Where Reported
12624SAE9	\$ 2,480,393	\$ 56,686	\$ (2,423,708)	\$ 56,686	\$ 241,500	March 31, 2024
040104RV5	1,372,644	1,353,068	(19,576)	1,353,068	1,287,522	March 31, 2024
040104TF8	40,362	39,469	(893)	39,469	32,106	March 31, 2024
040104TG6	408,732	408,732	-	408,732	415,551	March 31, 2024
04012XAC9	124,521	124,515	(6)	124,515	106,576	March 31, 2024
12479DAC2	1,571,594	1,571,482	(112)	1,571,482	1,282,896	March 31, 2024
1248MGAJ3	39,783	39,439	(344)	39,439	33,515	March 31, 2024
17311YAC7	1,170,871	1,116,200	(54,672)	1,116,200	1,101,339	March 31, 2024
30247DAD3	510,622	505,931	(4,691)	505,931	473,455	March 31, 2024
35729RAE6	3,439,174	3,413,826	(25,349)	3,413,826	3,125,685	March 31, 2024
46629NAC7	31,443	31,252	(191)	31,252	25,667	March 31, 2024
46630KAA4	144,821	144,182	(639)	144,182	141,222	March 31, 2024
617463AA2	8,108	7,554	(554)	7,554	6,470	March 31, 2024
61749BAB9	58,393	58,386	(7)	58,386	62,224	March 31, 2024
61750FAE0	377,655	367,352	(10,303)	367,352	338,847	March 31, 2024
61750MAB1	3,228	2,932	(296)	2,932	2,831	March 31, 2024
617526AE8	161,089	160,981	(108)	160,981	184,441	March 31, 2024
61757MAB4	2,216,577	2,159,573	(57,003)	2,159,573	1,598,436	March 31, 2024
86359DXD4	149,656	142,761	(6,896)	142,761	149,311	March 31, 2024
93934XAB9	117,534	116,301	(1,233)	116,301	115,601	March 31, 2024
05535DAN4	508,829	467,091	(41,737)	467,091	482,546	March 31, 2024
07387AFX8	46,064	46,059	(5)	46,059	48,686	March 31, 2024
12667GKG7	41,516	40,855	(661)	40,855	41,704	March 31, 2024
12669E6K7	203,472	170,046	(33,427)	170,046	211,716	March 31, 2024
17025RAA3	216,726	186,092	(30,634)	186,092	236,121	March 31, 2024
18974BAA7	125,342	120,261	(5,081)	120,261	120,791	March 31, 2024
18974BAN9	63,192	59,615	(3,577)	59,615	63,277	March 31, 2024
22540VG71	33,573	33,122	(450)	33,122	33,174	March 31, 2024
22943HAD8	3,148,442	3,060,640	(87,802)	3,060,640	1,848,458	March 31, 2024
23321P6A1	1,123,431	1,114,640	(8,791)	1,114,640	1,207,067	March 31, 2024
251513AQ0	38,189	38,155	(35)	38,155	36,248	March 31, 2024
32053LAA0	17,947	17,219	(728)	17,219	15,858	March 31, 2024
45254TRX4	54,912	53,392	(1,520)	53,392	52,178	March 31, 2024
466247XE8	516,447	508,389	(8,059)	508,389	461,123	March 31, 2024
589929X29	311,818	309,770	(2,049)	309,770	315,074	March 31, 2024
61915RBZ8	160,029	160,028	(1)	160,028	139,745	March 31, 2024
65535VRK6	438,977	425,951	(13,026)	425,951	439,052	March 31, 2024
761118RJ9	72,483	70,209	(2,274)	70,209	59,726	March 31, 2024
86358HHX0	148,713	94,224	(54,489)	94,224	73,108	March 31, 2024
92978EAA2	73,009	73,005	(5)	73,005	69,366	March 31, 2024
23332UCM4	18,388	18,314	(74)	18,314	17,838	March 31, 2024
86360UAF3	894,861	894,830	(31)	894,830	697,974	March 31, 2024
92922FWU8	342,798	338,495	(4,303)	338,495	331,458	March 31, 2024
05949CCB0	27,131	27,127	(5)	27,127	28,180	March 31, 2024
12669GTE1	4,186	3,956	(230)	3,956	3,825	March 31, 2024
32051DCJ9	26,983	26,968	(15)	26,968	26,248	March 31, 2024
362341VU0	1,271,263	1,269,383	(1,881)	1,269,383	1,176,122	March 31, 2024
576433NH5	286,355	253,071	(33,284)	253,071	199,571	March 31, 2024
57645LAA2	9,040,600	9,037,867	(2,733)	9,037,867	10,546,925	March 31, 2024
86359DMC8	3,241,522	3,239,802	(1,720)	3,239,802	3,536,527	March 31, 2024
00256DAB8	2,293,480	1,123,558	(1,169,923)	1,123,558	1,133,931	June 30, 2024
62878HAA9	22,229,665	19,330,143	(2,899,522)	19,330,143	10,631,579	June 30, 2024
46639YAX5	4,840,606	4,356,606	(484,000)	4,356,606	2,182,538	June 30, 2024
040104RV5	1,374,485	1,317,092	(57,393)	1,317,092	1,289,098	June 30, 2024
040104TF8	40,063	38,577	(1,486)	38,577	31,948	June 30, 2024
04012XAC9	125,717	121,053	(4,664)	121,053	109,385	June 30, 2024
12479DAC2	1,568,478	1,507,516	(60,962)	1,507,516	1,260,108	June 30, 2024
1248MGAJ3	39,339	36,493	(2,846)	36,493	31,938	June 30, 2024
17311YAC7	1,130,510	1,068,361	(62,149)	1,068,361	1,058,184	June 30, 2024
24763LFY1	79,137	56,898	(22,239)	56,898	80,148	June 30, 2024
30247DAD3	503,737	488,694	(15,043)	488,694	456,193	June 30, 2024
40431KAE0	1,951,281	1,905,908	(45,373)	1,905,908	1,943,159	June 30, 2024

NOTES TO FINANCIAL STATEMENTS

46629NAC7	31,407	30,431	(976)	30,431	25,499	June 30, 2024
46630KAA4	143,450	141,586	(1,864)	141,586	140,735	June 30, 2024
617463AA2	7,597	7,322	(275)	7,322	6,323	June 30, 2024
61750FAE0	369,653	350,312	(19,340)	350,312	329,593	June 30, 2024
61750MAB1	2,958	2,835	(123)	2,835	2,781	June 30, 2024
61755AAB2	2,454	2,359	(94)	2,359	2,428	June 30, 2024
86359DXD4	142,667	137,350	(5,317)	137,350	145,141	June 30, 2024
86363HAB8	32,111	31,169	(942)	31,169	26,424	June 30, 2024
92926SAB2	392	351	(41)	351	364	June 30, 2024
93934XAB9	115,953	101,026	(14,926)	101,026	112,047	June 30, 2024
05535DAN4	445,322	440,021	(5,302)	440,021	485,938	June 30, 2024
18974BAA7	118,366	118,173	(192)	118,173	118,788	June 30, 2024
22540VG71	32,306	32,221	(85)	32,221	32,311	June 30, 2024
22541NUB3	121,803	119,790	(2,012)	119,790	55,976	June 30, 2024
22943HAD8	3,037,380	2,969,818	(67,562)	2,969,818	1,824,526	June 30, 2024
251510FB4	991,980	977,715	(14,265)	977,715	949,619	June 30, 2024
251513AQ0	38,093	37,966	(127)	37,966	35,832	June 30, 2024
32053LAA0	16,926	16,894	(32)	16,894	15,685	June 30, 2024
45254TRX4	52,515	52,231	(284)	52,231	50,916	June 30, 2024
45660LW96	660,160	653,133	(7,027)	653,133	545,339	June 30, 2024
45660LYW3	681,953	671,658	(10,294)	671,658	610,731	June 30, 2024
75115DAH8	3,134	2,919	(215)	2,919	2,655	June 30, 2024
761118FM5	1,360,921	1,317,414	(43,507)	1,317,414	1,331,404	June 30, 2024
761118RJ9	68,124	66,151	(1,974)	66,151	57,214	June 30, 2024
86358HHX0	135,467	88,953	(46,513)	88,953	71,879	June 30, 2024
86359BLQ2	646,438	619,933	(26,504)	619,933	466,829	June 30, 2024
92925VAM2	129,124	81,086	(48,038)	81,086	122,377	June 30, 2024
45660N5H4	1,036,870	974,290	(62,580)	974,290	1,002,198	June 30, 2024
61915RBB1	1,435,288	1,426,876	(8,411)	1,426,876	1,296,802	June 30, 2024
92922FWU8	335,190	333,498	(1,691)	333,498	328,225	June 30, 2024
17309FAE8	60,256	53,623	(6,633)	53,623	69,177	June 30, 2024
32051DCJ9	24,293	24,274	(19)	24,274	23,660	June 30, 2024
362334CN2	7,052	7,052	-	7,052	6,749	June 30, 2024
362341VU0	1,258,267	1,249,922	(8,345)	1,249,922	1,118,645	June 30, 2024
36298XAB8	4,703,619	4,033,800	(669,819)	4,033,800	4,079,741	June 30, 2024
466247UG6	103,056	101,640	(1,415)	101,640	101,176	June 30, 2024
59024WAB3	106,858	90,598	(16,259)	90,598	112,505	June 30, 2024
86359DME4	321,381	316,230	(5,151)	316,230	314,754	June 30, 2024
Totals	\$ 91,881,680	\$ 83,012,717	\$ (8,868,962)	\$ 83,012,717	\$ 69,476,076	

(4) As of June 30, 2024, the gross unrealized losses and fair values for investments in structured and loan-backed securities for which an OTTI has not been recognized in earnings follow:

a. The aggregate amount of unrealized losses:	
1. Less than 12 months	\$ (304,829,803)
2. 12 months or longer	\$ (10,837,538,355)
b. The aggregate related fair value of securities with unrealized losses:	
1. Less than 12 months	\$ 15,231,440,137
2. 12 months or longer	\$ 69,246,085,109

(5) No change

e. Dollar repurchase agreements and/or securities lending transactions: The Company did not have any dollar repurchase agreements and/or securities lending transactions as of June 30, 2024.

f. Repurchase agreements transactions accounted for as secured borrowing:

(1) The Company has entered into repurchase agreements whereby the Company sells securities and simultaneously agrees to repurchase the same or substantially the same securities. These repurchase agreements are accounted for as collateralized borrowings with the proceeds from the sale of the securities recorded as a liability and the underlying securities continue to be recorded as an investment by the Company. Earnings on these investments are recorded as investment income and the difference between the proceeds and the amount at which the securities will be subsequently reacquired is amortized as interest expense. Repurchase agreements are used as a tool for overall portfolio management to help ensure the Company maintains adequate assets in order to provide yield, spread and duration to support liabilities and other corporate needs.

The Company provides collateral, as dictated by the repurchase agreements, to the counterparty in exchange for a loan. If the fair value of the securities sold becomes less than the loan, the counterparty may require additional collateral.

The carrying value, which is at cost, reported in the Company's liabilities as repurchase agreements approximates the fair value.

NOTES TO FINANCIAL STATEMENTS

(2) Type of Repo Trades Used

	1 FIRST QUARTER	2 SECOND QUARTER	3 THIRD QUARTER	4 FOURTH QUARTER
a. Bilateral (YES/NO)	YES	YES	-	-
b. Tri-Party (YES/NO)	NO	NO	-	-

(3) Original (Flow) & Residual Maturity

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. Open – No Maturity	-	-	-	-
2. Overnight	-	-	-	-
3. 2 Days to 1 Week	-	-	-	-
4. > 1 Week to 1 Month	\$ -	\$ 178,446,691	\$ -	\$ -
5. > 1 Month to 3 Months	\$ 2,382,988,153	\$ 2,710,746,039	\$ -	\$ -
6. > 3 Months to 1 Year	\$ 2,325,343,052	\$ 2,712,188,652	\$ -	\$ -
7. > 1 Year	-	-	-	-

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
b. Ending Balance				
1. Open – No Maturity	-	-	-	-
2. Overnight	-	-	-	-
3. 2 Days to 1 Week	-	-	-	-
4. > 1 Week to 1 Month	\$ -	\$ 178,446,691	\$ -	\$ -
5. > 1 Month to 3 Months	\$ 1,140,986,312	\$ 2,537,435,882	\$ -	\$ -
6. > 3 Months to 1 Year	\$ 2,325,343,052	\$ 721,723,051	\$ -	\$ -
7. > 1 Year	-	-	-	-

(4) The company did not have any repurchase agreements where securities sold and/or acquired resulted in default as of June 30, 2024.

(5) Securities "Sold" Under Repo – Secured Borrowing

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. BACV	XXX	XXX	-	-
2. Nonadmitted - Subset of BACV	XXX	XXX	-	-
3. Fair Value	\$ 4,472,923,705	\$ 3,531,842,401	\$ -	\$ -

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
b. Ending Balance				
1. BACV	\$ 3,466,329,364	\$ 3,798,934,779	\$ -	\$ -
2. Nonadmitted - Subset of BACV	-	-	-	-
3. Fair Value	\$ 3,466,329,364	\$ 3,448,720,967	\$ -	\$ -

(6) Securities Sold Under Repo – Secured Borrowing by NAIC Designation

ENDING BALANCE

	1 NONE	2 NAIC 1	3 NAIC 2	4 NAIC 3
a. Bonds - BACV	\$ -	\$ 3,798,934,779	\$ -	\$ -
b. Bonds - FV	-	3,448,720,967	-	-
c. LB & SS - BACV	-	-	-	-
d. LB & SS - FV	-	-	-	-
e. Preferred Stock - BACV	-	-	-	-
f. Preferred Stock - FV	-	-	-	-
g. Common Stock	-	-	-	-
h. Mortgage Loans - BACV	-	-	-	-
i. Mortgage Loans - FV	-	-	-	-
j. Real Estate - BACV	-	-	-	-
k. Real Estate - FV	-	-	-	-
l. Derivatives - BACV	-	-	-	-
m. Derivatives - FV	-	-	-	-
n. Other Invested Assets - BACV	-	-	-	-
o. Other Invested Assets - FV	-	-	-	-
p. Total Assets - BACV	-	3,798,934,779	-	-
q. Total Assets - FV	\$ -	\$ 3,448,720,967	\$ -	\$ -

ENDING BALANCE

	5 NAIC 4	6 NAIC 5	7 NAIC 6	8 NON- ADMITTED
a. Bonds - BACV	\$ -	\$ -	\$ -	\$ -
b. Bonds - FV	-	-	-	-
c. LB & SS - BACV	-	-	-	-
d. LB & SS - FV	-	-	-	-
e. Preferred Stock - BACV	-	-	-	-
f. Preferred Stock - FV	-	-	-	-
g. Common Stock	-	-	-	-
h. Mortgage Loans - BACV	-	-	-	-
i. Mortgage Loans - FV	-	-	-	-
j. Real Estate - BACV	-	-	-	-
k. Real Estate - FV	-	-	-	-
l. Derivatives - BACV	-	-	-	-
m. Derivatives - FV	-	-	-	-
n. Other Invested Assets - BACV	-	-	-	-
o. Other Invested Assets - FV	-	-	-	-
p. Total Assets - BACV	-	-	-	-
q. Total Assets - FV	\$ -	\$ -	\$ -	\$ -

p=a+c+e+g+h+j+l+n
q=b+d+f+g+i+k+m+o

NOTES TO FINANCIAL STATEMENTS

(7) Collateral Received - Secured Borrowing

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. Cash	\$ 96,364,243	\$ 3,741,407,591	\$ -	\$ -
2. Securities (FV)	\$ 3,530,096,326	\$ 13,994,825	\$ -	\$ -
b. Ending Balance				
1. Cash	\$ 15,773,000	\$ 3,431,143,624	\$ -	\$ -
2. Securities (FV)	\$ 3,486,745,172	\$ -	\$ -	\$ -

(8) Cash & Non-Cash Collateral Received – Secured Borrowing by NAIC Designation

ENDING BALANCE		1 NONE	2 NAIC 1	3 NAIC 2	4 NAIC 3
a.	Cash	\$ 3,431,143,624	\$ -	\$ -	\$ -
b.	Bonds - FV	-	-	-	-
c.	LB & SS - FV	-	-	-	-
d.	Preferred Stock - FV	-	-	-	-
e.	Common Stock	-	-	-	-
f.	Mortgage Loans - FV	-	-	-	-
g.	Real Estate - FV	-	-	-	-
h.	Derivatives - FV	-	-	-	-
i.	Other Invested Assets - FV	-	-	-	-
j.	Total Collateral Assets - FV (Sum of a through i)	\$ 3,431,143,624	\$ -	\$ -	\$ -

ENDING BALANCE		5 NAIC 4	6 NAIC 5	7 NAIC 6	8 DOES NOT QUALIFY AS ADMITTED
a.	Cash	\$ -	\$ -	\$ -	\$ -
b.	Bonds - FV	-	-	-	-
c.	LB & SS - FV	-	-	-	-
d.	Preferred Stock - FV	-	-	-	-
e.	Common Stock	-	-	-	-
f.	Mortgage Loans - FV	-	-	-	-
g.	Real Estate - FV	-	-	-	-
h.	Derivatives - FV	-	-	-	-
i.	Other Invested Assets - FV	-	-	-	-
j.	Total Collateral Assets - FV (Sum of a through i)	\$ -	\$ -	\$ -	\$ -

(9) Allocation of Aggregate Collateral by Remaining Contractual Maturity

	FAIR VALUE
a. Overnight and Continuous	\$ -
b. 30 Days or Less	\$ 13,726,669
c. 31 to 90 Days	\$ 1,550,988,228
d. > 90 Days	\$ 1,927,000,824

(10) Allocation of Aggregate Collateral Reinvested by Remaining Contractual Maturity

	Amortized Cost	Fair Value
a. 30 Days or Less	\$ -	\$ -
b. 31 to 60 Days	\$ -	\$ -
c. 61 to 90 Days	\$ -	\$ -
d. 91 to 120 Days	\$ -	\$ -
e. 121 to 180 Days	\$ -	\$ -
f. 181 to 365 Days	\$ -	\$ -
g. 1 to 2 Years	\$ -	\$ -
h. 2 to 3 Years	\$ 1,124,726,188	\$ 1,138,878,118
i. > 3 Years	\$ 2,674,208,590	\$ 2,309,842,849

To help manage the mismatch of maturity dates between the security lending transactions and the related reinvestment of the collateral received, the Company invests in highly liquid assets.

(11) Liability to Return Collateral – Secured Borrowing (Total)

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. Cash (Collateral – All)	\$ 96,364,243	\$ 3,741,407,591	\$ -	\$ -
2. Securities Collateral (FV)	\$ 3,530,096,326	\$ 13,994,825	\$ -	\$ -
b. Ending Balance				
1. Cash (Collateral – All)	\$ 15,773,000	\$ 3,431,143,624	\$ -	\$ -
2. Securities Collateral (FV)	\$ 3,486,745,172	\$ -	\$ -	\$ -

- g. Reverse repurchase agreements transactions accounted for as secured borrowing: The Company did not have any reverse repurchase agreements transactions accounted for as secured borrowing as of June 30, 2024.
- h. Repurchase agreements transactions accounted for as a sale: The Company did not have any repurchase agreements transactions accounted for as a sale as of June 30, 2024.
- i. Reverse repurchase agreements transactions accounted for as a sale: The Company did not have any reverse repurchase agreements transactions accounted for as a sale as of June 30, 2024.
- j. Real estate - No change

NOTES TO FINANCIAL STATEMENTS

- k. Low-income housing tax credit - No change
- l. Restricted assets - No change
- m. Working capital finance investments: The Company did not invest in working capital finance investments as of June 30, 2024.
- n. Offsetting and netting of assets and liabilities: The Company reports derivative and repurchase agreement assets and liabilities as gross in the financial statements without offsetting as of June 30, 2024.

o. 5GI Securities:

Investment	Number of 5* Securities		Aggregate BACV		Aggregate Fair Value	
	Current Year	Prior Year	Current Year	Prior Year	Current Year	Prior Year
(1) Bonds - AC	240	245	\$1,254,726,463	\$1,458,100,411	\$1,253,250,759	\$1,430,083,571
(2) LB&SS - AC	-	-	-	-	-	-
(3) Preferred Stock - AC	2	3	514,496	515,696	763,801	9,465,952
(4) Preferred Stock - FV	1	1	28,003	10,833	28,003	10,833
(5) Total (1+2+3+4)	243	249	\$1,255,268,962	\$1,458,626,940	\$1,254,042,563	\$1,439,560,356

AC - Amortized Cost FV - Fair Value

p. Short sales - The Company does not engage in short sale transactions.

q. Prepayment penalty and acceleration fees:

	Six Months Ended June 30, 2024	
	General Account	Separate Account
1. Number of CUSIPS	23	2
2. Aggregate amount of investment income	\$ 11,193,517	\$ 18,952

r. Reporting entity's share of cash pool by asset type - The Company does not have cash in a qualified cash pool.

Note 6 – Joint Ventures, Partnerships and Limited Liability Companies - No change

Note 7 – Investment Income – No change

Note 8 – Derivative Instruments

- a. The Company did not have any deferred derivative premium payments under SSAP No. 86.
- b. The Company did not account for any derivatives under SSAP No. 108.

Note 9 – Income Taxes – No changes.

Note 10 – Information Concerning Parent, Subsidiaries and Affiliates

- a-c. MassMutual Holding LLC (MMHLLC) paid \$784,500,000 in dividends to MassMutual for the six months ended June 30, 2024, \$630,000,000 which were declared in 2023, and paid \$730,000,000 in dividends to MassMutual for the six months ended June 30, 2023, \$450,000,000 which were declared in 2022.

MassMutual contributed capital of \$53,105,245 to MMHLLC for the six months ended June 30, 2023.

d-f. No change

- g. Subsidiaries of MMHLLC are involved in litigation and investigations arising in the ordinary course of their business, which seek compensatory damages, punitive damages and equitable remedies. Although the Company is not aware of any actions or allegations that reasonably could give rise to a material adverse impact to the Company's financial position or liquidity, the outcome of litigation cannot be foreseen with certainty. It is the opinion of management that the ultimate resolution of these matters will not materially impact the Company's financial position or liquidity. However, the outcome of a particular proceeding may be material to the Company's surplus for a particular period depending upon, among other factors, the size of the loss and the level of the Company's changes in surplus for the period.

The Company has no parent.

h-o. No change

Note 11 – Debt

- a. No change.
- b. Federal Home Loan Bank agreements:
- (1) The Company is a member of the Federal Home Loan Bank of Boston (FHLB Boston). Through its membership, the Company has conducted business activity (borrowings) with the FHLB Boston. The Company uses these funding agreements with the FHLB Boston in an investment spread strategy, consistent with its other investment spread operations. MassMutual's borrowing capacity with FHLB Boston is subject to the lower of the limitation on the pledge of collateral for a loan set forth by law or by MassMutual's internal limit. The Company's unused capacity was \$3,889,422,309 as of June 30, 2024.

NOTES TO FINANCIAL STATEMENTS

(2) FHLB Boston capital stock

a. Aggregate totals:

		June 30, 2024		
		1	2	3
		Total	General	Separate
		2+3	Account	Account
1.	Current Year:			
	(a) Membership stock - Class A	\$ -	\$ -	-
	(b) Membership stock - Class B	5,000,000	5,000,000	-
	(c) Activity Stock	84,000,000	84,000,000	-
	(d) Excess Stock	2,670,000	2,670,000	-
	(e) Aggregate Total	<u>\$ 91,670,000</u>	<u>\$ 91,670,000</u>	<u>\$ -</u>
	(f) Actual or Estimated Borrowing Capacity as Determined by the Insurer	\$ 6,000,000,000	\$ 6,000,000,000	\$ -
2.	Prior Year-end:			
	(a) Membership stock - Class A	\$ -	\$ -	-
	(b) Membership stock - Class B	5,000,000	5,000,000	-
	(c) Activity Stock	84,000,000	84,000,000	-
	(d) Excess Stock	2,670,000	2,670,000	-
	(e) Aggregate Total	<u>\$ 91,670,000</u>	<u>\$ 91,670,000</u>	<u>\$ -</u>
	(f) Actual or Estimated Borrowing Capacity as determined by the Insurer	\$ 6,000,000,000	\$ 6,000,000,000	\$ -

b. Membership Stock (Class A and B) Eligible and Not Eligible for Redemption:

		Six Months Ended June 30, 2024					
Membership Stock	1	2	Eligible for Redemption				
			3	4	5	6	
	Current Year Total	Not Eligible for Redemption	Less Than 6 Months	6 Months to Less Than 1 Year	1 to Less Than 3 Years	3 to 5 Years	
1. Class A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2. Class B	5,000,000	5,000,000	-	-	-	-	

NOTES TO FINANCIAL STATEMENTS

(3) Collateral pledged to FHLB:

a. Amount pledged as of June 30, 2024:

1. Current year total general and separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 5,473,374,041	\$ 3,925,340,551	\$ 2,110,577,691

2. Current year general account:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 5,473,374,041	\$ 3,925,340,551	\$ 2,110,577,691

3. Current year separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ -	\$ -	\$ -

4. Prior year-end total general and separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 4,059,897,795	\$ 2,944,246,829	\$ 2,110,775,244

b. Maximum amount pledged for the six months ended June 30, 2024:

1. Current year total general and separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 5,473,374,041	\$ 3,925,340,551	\$ 2,110,577,691

2. Current year general account:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 5,473,374,041	\$ 3,925,340,551	\$ 2,110,577,691

3. Current year separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ -	\$ -	\$ -

4. Prior year-end total general and separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 4,059,897,795	\$ 2,944,246,829	\$ 2,110,775,244

NOTES TO FINANCIAL STATEMENTS

(4) Borrowing from FHLB:

a. Amount:

1. Current year:

	June 30, 2024			
	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	2,110,577,691	2,110,577,691	-	2,110,577,691
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 2,110,577,691</u>	<u>\$ 2,110,577,691</u>	<u>\$ -</u>	<u>\$ 2,110,577,691</u>

2. Prior Year-end:

	December 31, 2023			
	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	2,110,775,244	2,110,775,244	-	2,110,775,244
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 2,110,775,244</u>	<u>\$ 2,110,775,244</u>	<u>\$ -</u>	<u>\$ 2,110,775,244</u>

b. Maximum Amount:

	Six Months Ended June 30, 2024		
	1 Total 2+3	2 General Account	3 Separate Account
1. Debt	\$ -	\$ -	\$ -
2. Funding	2,114,002,744	2,114,002,744	-
3. Other	-	-	-
4. Aggregate	<u>\$ 2,114,002,744</u>	<u>\$ 2,114,002,744</u>	<u>\$ -</u>

c. FHLB - Prepayment Obligations:

Does the company have prepayment obligations under the following arrangements (YES/NO)?

1. Debt	N/A
2. Funding agreements	NO
3. Other	N/A

Note 12 – Retirement Plans, Deferred Compensation, Postemployment Benefits and Compensated Absences and Other Postretirement Benefit Plans

a. Defined Benefit Plan:

(1) The Company sponsors multiple employee benefit plans, providing retirement, life, health and other benefits to employees, certain employees of unconsolidated subsidiaries, agents, general agents and retirees who meet plan eligibility requirements.

(2-3) No change

(4) Components of net periodic benefit cost/(benefit)

	Six Months Ended June 30,					
	2024	2023	2024	2023	2024	2023
	Pension Benefits		Postretirement Benefits		Special or Contractual Benefits per SSAP No 11	
a. Service cost	\$ 49,253,757	\$ 43,246,130	\$ 3,700,000	\$ 3,900,000	\$ -	\$ -
b. Interest cost	61,488,859	62,438,691	7,400,000	7,750,000	-	-
c. Expected return on plan assets	(85,457,364)	(84,271,559)	(50,000)	-	-	-
d. Transition asset or obligation	-	-	-	-	-	-
e. Gains and losses	9,552,478	13,325,949	(3,800,000)	(4,350,000)	-	-
f. Prior service cost or (benefit)	-	-	(2,750,000)	(2,750,000)	-	-
g. Settlement and Curtailment	-	-	-	-	-	-
h. Total net periodic benefit cost/(benefit)	<u>\$ 34,837,730</u>	<u>\$ 34,739,211</u>	<u>\$ 4,500,000</u>	<u>\$ 4,550,000</u>	<u>\$ -</u>	<u>\$ -</u>

(5-21) No change

b-i. No change

NOTES TO FINANCIAL STATEMENTS

Note 13 – Capital and Surplus, Dividend Restrictions and Quasi-Reorganizations

(a-c) No change

d. The Company is a mutual company, and as such does not pay stockholders' dividends.

(e-j) No change

Note 14 – Liabilities, Contingencies and Assessments

a. Contingent commitments - No change

b. Assessments - No change

c. Gain contingencies - No change

d. Claims related to extra contractual obligations - No change

e. Joint and several liabilities - No change

f. All other contingencies:

In the normal course of business, the Company is involved in disputes, litigation and governmental or regulatory inquiries, administrative proceedings, examinations and investigations, both pending and threatened. These matters, if resolved adversely against the Company or settled, may result in monetary damages, fines and penalties or require changes in the Company's business practices. The resolution or settlement of these matters is inherently difficult to predict. Based upon the Company's assessment of these pending matters, the Company does not believe that the amount of any judgment, settlement or other action arising from any pending matter is likely to have a material adverse effect on the statement of financial position. However, an adverse outcome in certain matters could have a material adverse effect on the results of operations for the period in which such matter is resolved, or an accrual is determined to be required, on the financial statement financial position, or on our reputation.

The Company evaluates the need for accruals of loss contingencies for each matter. When a liability for a matter is probable and can be estimated, the Company accrues an estimate of the loss and any related insurance recoveries, if any. An accrual is subject to subsequent adjustment as a result of additional information and other developments. The resolution of matters are inherently difficult to predict, especially in the early stages of matter. Even if a loss is probable, due to many complex factors, such as speed of discovery and the timing of court decisions or rulings, a loss or range of loss may not be reasonably estimated until the later stages of the matter. For matters where a loss is material and it is either probable or reasonably possible then it is disclosed. For matters where a loss may be reasonably possible, but not probable, or is probable but not reasonably estimated, no accrual is established, but the matter, if material, is disclosed.

Note 15 – Leases - No change

Note 16 – Information About Financial Instruments With Off-Balance Sheet Risk and Financial Instruments With Concentrations of Credit Risk - No change

Note 17 – Sale, Transfer and Servicing of Financial Assets and Extinguishments of Liabilities

a. Transfers of receivables reported as sales - No change

b. Transfer and servicing of financial assets:

(1) No change

(2) The Company did not have any servicing assets or liabilities in 2024 or 2023.

(3) No change

(4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2024 or 2023.

(5-7) No change

c. Wash sales:

(1) In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days to enhance the Company's yield on its investment portfolio.

(2) The Company did not sell any securities with the NAIC Designation 3 or below, or unrated, through the six months ended June 30, 2024 that were reacquired within 30 days of the sale date.

Note 18 – Gain or Loss to the Reporting Entity from Uninsured Plans and the Uninsured Portion of Partially Insured Plans - No change

Note 19 – Direct Premium Written/Produced by Managing General Agents/Third Party Administrators - No change

Note 20 – Fair Value Measurements

a. Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The authoritative guidance around fair value establishes a measurement framework that includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs to valuation techniques into three levels. Each level reflects a unique description of the inputs that are significant to the fair value measurements. The levels of the fair value hierarchy are as follows:

Level 1 – Observable inputs in the form of quoted prices for identical instruments in active markets.

Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be derived from observable market data for substantially the full term of the assets or liabilities.

Level 3 – One or more unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using internal models, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

When available, the Company generally uses unadjusted quoted market prices from independent sources to determine the fair value of investments, and classifies such items within Level 1 of the fair value hierarchy. If quoted prices are not available, prices are derived from observable market data for similar assets in an active market or obtained directly from brokers for identical assets traded

NOTES TO FINANCIAL STATEMENTS

in inactive markets. Investments that are priced using these inputs are classified within Level 2 of the fair value hierarchy. When some of the necessary observable inputs are unavailable, fair value is based upon internally developed models. These models use inputs not directly observable or correlated with observable market data. Typical inputs, which are integrated in the Company's internal discounted cash flow models and discounted earnings models include, but are not limited to, issuer spreads derived from internal credit ratings and benchmark yields such as the LIBOR, cash flow estimates and earnings before interest, taxes, depreciation and amortization estimates. Investments that are priced with such unobservable inputs are classified within Level 3 of the fair value hierarchy.

The Company has established and maintains policies and guidelines that govern its valuation methodologies and their consistent application. These policies and guidelines address the use of inputs, price source hierarchies and provide controls around the valuation processes. These controls include appropriate review and analysis of prices against market activity or indicators for reasonableness, approval of price source changes, price overrides, methodology changes and classification of fair value hierarchy levels. The valuation policies and guidelines are reviewed and updated as appropriate.

Annually, the Company reviews the primary pricing vendor to validate that the inputs used in that vendor's pricing process are deemed to be market observable as defined above. While the Company was not provided access to proprietary models of the vendor, the reviews have included on-site walk-throughs of the pricing process, methodologies and control procedures for each asset class and level for which prices are provided. The review also included an examination of the underlying inputs and assumptions for a sample of individual securities across asset classes. In addition, the Company and its pricing vendors have an established challenge process in place for all security valuations, which facilitates identification and resolution of prices that fall outside expected ranges. The Company believes that the prices received from the pricing vendors are representative of prices that would be received to sell the assets at the applicable measurement date (exit prices) and are classified appropriately in the hierarchy.

The fair value of group annuity contracts and other deposits is determined by multiplying the book value of the contract by an average market value adjustment factor. The market value adjustment factor is directly related to the difference between the book value of client liabilities and the present value of installment payments discounted at current market value yields. The market value yield is measured by the Bloomberg Barclays Global-Aggregate Total Return Index, subject to certain adjustments, and the installment period is equivalent to the duration of the Company's invested asset portfolio.

The fair value of individual annuity and supplementary contracts is determined using one of several methods based on the specific contract type. For short-term contracts, generally less than 30 days, the fair value is assumed to be the book value. For contracts with longer durations, guaranteed interest contracts and investment-type contracts, the fair value is determined by calculating the present value of future cash flows discounted at current market interest rates, the risk-free rate or a current pricing yield curve based on pricing assumptions using assets of a comparable corporate bond quality. Annuities receiving dividends are accumulated at the average minimum guaranteed rate and discounted at the risk-free rate. All others are valued using cash flow projections from the Company's asset-liability management analysis.

(1) The following presents the Company's fair value hierarchy for assets and liabilities that are carried at fair value:

	June 30, 2024			Net Asset Value	
	Level 1	Level 2	Level 3	(NAV)	Total
Financial assets:					
Bonds:					
Special revenue	\$ -	\$ 1,231,200	\$ -	\$ -	\$ 1,231,200
Industrial and miscellaneous	717,617,633	108,245,064	281,831,159	-	1,107,693,856
Preferred stocks	5,725,994	-	57,939,851	-	63,665,845
Common stock - subsidiaries and affiliates	248,513,997	-	266,145,634	-	514,659,631
Common stock - unaffiliated	787,842,812	224,594,952	1,002,314,054	-	2,014,751,818
Derivatives:					
Interest rate swaps	-	19,598,253,328	-	-	19,598,253,328
Options	51,006,860	462,713,410	-	-	513,720,270
Currency swaps	-	2,696,786,199	-	-	2,696,786,199
Forward contracts	-	35,629,597	-	-	35,629,597
Credit default swaps	-	389,453	-	-	389,453
Financial futures	6,699,636	-	-	-	6,699,636
Separate account assets	34,192,950,528	14,688,514,556	1,883,706,493	-	50,765,171,577
Total financial assets carried at fair value	\$ 36,010,357,460	\$ 37,816,357,759	\$ 3,491,937,191	\$ -	\$ 77,318,652,410
Financial liabilities:					
Derivatives:					
Interest rate swaps	\$ -	\$ 14,693,920,200	\$ -	\$ -	\$ 14,693,920,200
Options	28,146,280	-	-	-	28,146,280
Currency swaps	-	146,582,869	-	-	146,582,869
Forward contracts	-	46,075,109	-	-	46,075,109
Credit default swaps	-	161,173,958	-	-	161,173,958
Financial futures	3,882,329	-	-	-	3,882,329
Total financial liabilities carried at fair value	\$ 32,028,609	\$ 15,047,752,136	\$ -	\$ -	\$ 15,079,780,745

The Company reviews the fair value hierarchy classifications each reporting period. Changes in the observability of the valuation attributes and the level of market activity may result in a reclassification of certain financial assets or liabilities between fair value hierarchy classifications. Such reclassifications are reported as transfers between levels at the beginning fair value for the reporting period in which the changes occur. For the period ended June 30, 2024, there were derivative transfers between Level 2 and Level 1 for options and futures are priced using quoted marks. The Company does not have any financial instruments that were carried at NAV as a practical expedient.

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

NOTES TO FINANCIAL STATEMENTS

December 31, 2023

	Net Asset Value				Total
	Level 1	Level 2	Level 3	(NAV)	
Financial assets:					
Bonds:					
Special revenue	\$ -	\$ 1,625,000	\$ -	\$ -	\$ 1,625,000
Industrial and miscellaneous	65,619,796	106,530,638	172,798,693	-	344,949,127
Preferred stocks	23,636,537	-	63,220,969	-	86,857,506
Common stock - subsidiaries and affiliates	253,126,070	-	176,712,760	-	429,838,830
Common stock - unaffiliated	665,751,670	172,640	957,222,113	-	1,623,146,423
Derivatives:					
Interest rate swaps	-	17,286,618,451	-	-	17,286,618,451
Options	68,242,170	478,755,608	-	-	546,997,778
Currency swaps	-	2,830,582,548	-	-	2,830,582,548
Forward contracts	-	13,364,595	-	-	13,364,595
Financial futures	56,233,659	-	-	-	56,233,659
Separate account assets	35,001,336,084	15,677,052,707	1,914,243,493	-	52,592,632,284
Total financial assets carried at fair value	\$ 36,133,945,986	\$ 36,394,702,187	\$ 3,284,198,028	\$ -	\$ 75,812,846,201
Financial liabilities:					
Derivatives:					
Interest rate swaps	\$ -	\$ 11,922,119,773	\$ -	\$ -	\$ 11,922,119,773
Options	34,677,920	-	-	-	34,677,920
Currency swaps	-	192,207,043	-	-	192,207,043
Forward contracts	-	301,363,142	-	-	301,363,142
Credit default swaps	-	152,553,361	-	-	152,553,361
Financial futures	28,907,894	-	-	-	28,907,894
Total financial liabilities carried at fair value	\$ 63,585,814	\$ 12,568,243,319	\$ -	\$ -	\$ 12,631,829,133

(2) The following presents changes in the Company's Level 3 financial instruments that are carried at fair value:

	Balance as of	Transfers ⁽¹⁾		Gains (Losses) in	Gains (Losses) in	Purchases	Issuances	Sales	Settlements	Balance as of
	01/01/2024	In	Out	Net Income	Surplus					06/30/2024
Financial assets:										
Bonds:										
Industrial and miscellaneous	\$ 172,798,693	\$ 177,798,350	\$ -	\$ (53,040,262)	\$ (16,345,622)	\$ 1,111,416	\$ 1,214,946	\$ -	\$ (1,706,362)	\$ 281,831,159
Preferred stock	63,220,969	-	(7,476,221)	-	1,696,976	498,127	-	-	-	57,939,851
Common stock - subsidiaries and affiliates	176,712,760	211,493,876	(155,598,031)	62,510	28,567,593	-	4,969,436	(62,510)	-	266,145,634
Common stock - unaffiliated	957,222,112	25,345,725	-	10,922,838	(17,374,292)	30,996,719	21,376,658	(12,171,141)	(14,004,564)	1,002,314,055
Derivatives:										
Separate account assets	1,914,243,493	-	-	6,714,103	-	35,736,403	-	(70,650,108)	(2,337,399)	1,883,706,492
Total financial assets	\$ 3,284,198,027	\$ 414,637,951	\$ (163,074,252)	\$ (35,340,811)	\$ (3,455,345)	\$ 68,342,665	\$ 27,561,040	\$ (82,883,759)	\$ (18,048,325)	\$ 3,491,937,191

⁽¹⁾Level 3 transfers include assets that are consistently carried at fair value but have had a level change, are no longer carried at fair value, or have just begun to be carried at fair value, such as assets with no level changes but a change in the lower of cost or market carrying basis. Industrial and miscellaneous bonds in other transfers are assets that are no longer carried at fair value.

	Balance as of	Transfers ⁽¹⁾		Gains (Losses) in	Gains (Losses) in	Purchases	Issuances	Sales	Settlements	Balance as of
	01/1/2023	In	Out	Net Income	Surplus					12/31/2023
Financial assets:										
Bonds:										
Industrial and miscellaneous	\$ 219,761,776	\$ (56,000,000)	\$ (121,103)	\$ (3,729,207)	\$ (9,956,830)	\$ 36,482,618	\$ 1,347,806.0	\$ (1,819,171)	\$ (13,167,196)	\$ 172,798,693
Preferred Stock	47,089,392	-	2,054,843	-	10,906,421	3,170,313	-	-	-	63,220,969
Common stock - subsidiaries and affiliates	349,974,519	41,989,788	-	7,380,701	(216,078,636)	20,878,489	19,909,460.0	(47,341,561)	-	176,712,760
Common stock - unaffiliated	970,144,486	(2,951,710)	(263,306)	23,691,674	(52,678,881)	60,314,806	25,557,065.0	(28,418,953)	(38,173,069)	957,222,112
Separate account assets	1,693,225,223	-	-	271,216,596	-	133,567,480	-	(181,768,565)	(1,997,241)	1,914,243,493
Total financial assets	\$ 3,280,195,396	\$ (16,961,922)	\$ 1,670,434	\$ 298,559,764	\$ (267,807,926)	\$ 254,413,706	\$ 46,814,331	\$ (259,348,250)	\$ (53,337,506)	\$ 3,284,198,027

⁽¹⁾Level 3 transfers include assets that are consistently carried at fair value but have had a level change, are no longer carried at fair value, or have just begun to be carried at fair value, such as assets with no level changes but a change in the lower of cost or market carrying basis. The common stock unaffiliated assets were transferred from Level 2 to Level 3 due to a change in the observability of pricing inputs.

(3) The Company reviews the fair value hierarchy classifications at each reporting period. Overall, reclassifications between levels occur when there are changes in the observability of inputs and market activity used in the valuation of a financial asset or liability. Such reclassifications are reported as transfers between levels at the beginning fair value for the reporting period in which the changes occur. Given the types of assets classified as Level 1 (primarily equity securities and mutual fund investments), transfers between Level 1 and Level 2 measurement categories are expected to be infrequent. Transfers into and out of Level 3 are summarized in the schedule of changes in Level 3 assets and liabilities.

(4) *Valuation Techniques and Inputs*

The Company determines the fair value of its investments using primarily the market approach or the income approach. The use of quoted prices for identical assets and matrix pricing or other similar techniques are examples of market approaches, while the use of discounted cash flow methodologies is an example of the income approach. The Company attempts to maximize the use of observable inputs and minimize the use of unobservable inputs in selecting whether the market or the income approach is used.

NOTES TO FINANCIAL STATEMENTS

A description of the significant valuation techniques and inputs to the determination of estimated fair value for the more significant asset and liability classes measured at fair value on a recurring basis and categorized within Level 2 and Level 3 of the fair value hierarchy is as follows:

Separate account assets - These assets primarily include bonds (industrial and miscellaneous; U.S. government and agencies) and derivatives. Their fair values are determined as follows:

Bonds (Industrial and miscellaneous) - These securities are principally valued using the market or the income approaches. Level 2 valuations are based primarily on quoted prices in markets that are not active, broker quotes, matrix pricing or other similar techniques that use standard market observable inputs such as benchmark yields, spreads versus benchmark yields, new issuances, issuer ratings, duration, and trades of identical or comparable securities. Privately placed securities are valued using discounted cash flow models using standard market observable inputs, and inputs derived from, or corroborated by, market observable data including market yield curve, duration, call provisions, observable prices and spreads for similar publicly traded or privately traded issuances that incorporate the credit quality and industry sector of the issuer. This level also includes securities priced by independent pricing services that use observable inputs. Valuations based on matrix pricing or other similar techniques that utilize significant unobservable inputs or inputs that cannot be derived principally from, or corroborated by, observable market data, including adjustments for illiquidity, delta spread adjustments or spreads to reflect industry trends or specific credit-related issues are classified as Level 3. In addition, inputs including quoted prices for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2 are classified as Level 3.

Bonds (U.S. government and agencies) - These securities are principally valued using the market approach. Level 2 valuations are based primarily on quoted prices in markets that are not active, or using matrix pricing or other similar techniques using standard market observable inputs such as the benchmark U.S. Treasury yield curve, the spreads versus the U.S. Treasury yield curve for the identical security and comparable securities that are actively traded.

Derivative assets and liabilities - These financial instruments are primarily valued using the market approach. The estimated fair value of derivatives is based primarily on quotations obtained from counterparties and independent sources, such as quoted market values received from brokers. These quotations are compared to internally derived prices and a price challenge is lodged with the counterparties and an independent source when a significant difference cannot be explained by appropriate adjustments to the internal model. When quoted market values are not reliable or available, the value is based upon an internal valuation process using market observable inputs that other market participants would use. Significant inputs to the valuation of derivative financial instruments include overnight index swaps and LIBOR basis curves, interest rate volatility, swap yield curve, currency spot rates, cross currency basis curves and dividend yields. Due to the observability of the significant inputs to these fair value measurements, they are classified as Level 2.

The use of different assumptions or valuation methodologies may have a material impact on the estimated fair value amounts. For the periods presented, there were no significant changes to the Company's valuation techniques.

- (5) Derivative assets and liabilities fair value disclosures on a gross basis are included in paragraph 1 above. Since there are no derivative assets or liabilities classified in Level 3, the reconciliation disclosures required under paragraphs 2 through 4 are not applicable.

- b. The Company provides additional fair value information in Note 21 "Other Items".

NOTES TO FINANCIAL STATEMENTS

c. The following presents a summary of the carrying values and fair values of the Company's financial instruments:

		June 30, 2024					Net	Not
		Aggregate	Admitted				Asset	Practicable
		Fair Value	Assets	Level 1	Level 2	Level 3	Value	(Carrying
							(NAV)	Value)
Financial assets:								
Bonds:								
U. S. government and agencies	\$	4,898,939,272	\$ 5,435,798,725	-	\$ 4,898,939,272	-	\$	-
All other governments		904,254,893	1,080,848,962	799,471	903,455,423	-	-	-
States, territories and possessions		156,274,277	165,661,490	-	156,274,277	-	-	-
Political subdivisions		312,700,725	320,821,411	-	312,700,725	-	-	-
Special revenue		3,758,564,395	3,846,571,928	-	3,722,484,516	36,079,879	-	-
Industrial and miscellaneous		128,008,243,210	136,964,108,247	717,881,633	64,958,499,738	62,331,861,839	-	-
Parent, subsidiaries and affiliates		9,663,998,042	10,094,861,229	-	1,433,574,395	8,230,423,647	-	-
Preferred stocks		567,444,504	548,436,507	147,510,342	37,637,760	382,296,402	-	-
Common stocks - subsidiaries and affiliates ⁽¹⁾								
Common stocks - unaffiliated		514,659,631	514,659,631	248,513,997	-	266,145,634	-	-
Mortgage loans - commercial		2,014,751,818	2,014,751,818	787,842,812	224,594,952	1,002,314,054	-	-
Mortgage loans - residential		17,312,521,374	18,641,416,881	-	-	17,312,521,374	-	-
Cash, cash equivalents and short-term investments		5,391,908,038	5,642,800,242	-	-	5,391,908,038	-	-
		4,808,506,785	4,808,506,785	696,250,150	4,112,256,635	-	-	-
Derivatives:								
Interest rate swaps		13,842,029,916	19,603,205,739	-	13,842,029,916	-	-	-
Options		513,720,270	513,720,270	51,006,860	462,713,410	-	-	-
Currency swaps		2,704,382,275	2,716,772,309	-	2,704,382,275	-	-	-
Forward contracts		36,195,908	35,629,597	-	36,195,908	-	-	-
Credit default swaps		666,634	902,494	-	666,634	-	-	-
Financial futures		6,699,636	6,699,636	6,699,636	-	-	-	-
Separate account assets		50,765,171,573	50,765,171,573	34,192,950,525	14,688,514,556	1,883,706,493	-	-
Financial liabilities:								
Repurchase agreements		3,433,878,478	3,433,878,478	-	3,433,878,478	-	-	-
Debt		998,720,008	998,720,008	-	998,720,008	-	-	-
Guaranteed interest contracts		16,074,548,518	16,811,291,630	-	-	16,074,548,518	-	-
Group annuity contracts and other deposits								
Individual annuity contracts		1,720,199,247	1,882,192,833	-	-	1,720,199,247	-	-
Supplementary contracts		27,741,932,265	27,725,351,066	-	-	27,741,932,265	-	-
Derivatives:		888,237,591	887,431,589	-	-	888,237,591	-	-
Interest rate swaps		15,123,480,395	14,693,920,200	-	15,123,480,395	-	-	-
Options		28,146,280	28,146,280	28,146,280	-	-	-	-
Currency swaps		861,271,452	986,940,965	-	861,271,452	-	-	-
Forward contracts		46,075,109	42,933,392	-	46,075,109	-	-	-
Credit default swaps		161,173,958	-	-	161,173,958	-	-	-
Financial futures		3,882,329	3,882,329	3,882,329	-	-	-	-

⁽¹⁾Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had a statutory carrying value of \$25,631,260,535.

NOTES TO FINANCIAL STATEMENTS

December 31, 2023							Net	Not
	Aggregate	Admitted				Asset	Practicable	
	Fair Value	Assets	Level 1	Level 2	Level 3	Value	(Carrying	
						(NAV)	Value)	
Financial assets:								
Bonds:								
U. S. government and agencies	\$ 4,744,453,337	\$ 5,059,507,417	\$ -	\$ 4,744,441,172	\$ 12,165	\$ -	\$ -	
All other governments	1,092,169,095	1,242,122,978	-	1,062,095,867	30,073,228	-	-	
States, territories and possessions	228,520,706	230,671,453	-	228,520,706	-	-	-	
Political subdivisions	353,206,002	363,337,158	-	353,206,002	-	-	-	
Special revenue	4,974,649,699	4,986,163,198	-	4,937,786,020	36,863,680	-	-	
Industrial and miscellaneous	114,597,913,862	122,721,386,811	65,883,796	50,893,052,527	63,638,977,539	-	-	
Parent, subsidiaries and affiliates	9,410,464,510	9,829,970,652	-	1,406,366,586	8,004,097,924	-	-	
Preferred stocks	469,567,523	446,025,402	96,000,000	-	374,000,000	-	-	
Common stock - subsidiaries and affiliates ⁽¹⁾	429,838,830	429,838,830	253,126,070	-	115,109,209	-	-	
Common stock - unaffiliated	1,623,146,423	1,623,146,423	665,751,670	172,640	957,222,113	-	-	
Mortgage loans - commercial	17,884,805,403	19,299,089,634	-	-	17,884,805,403	-	-	
Mortgage loans - residential	4,449,107,050	4,721,559,120	-	-	4,449,107,050	-	-	
Cash, cash equivalents and short-term investments	11,134,091,819	11,134,091,819	781,842,463	10,352,249,356	-	-	-	
Derivatives:								
Interest rate swaps	12,276,536,038	17,291,673,875	-	12,276,536,038	-	-	-	
Options	546,997,778	546,997,779	68,242,170	478,755,608	-	-	-	
Currency swaps	2,831,026,739	2,830,989,026	-	2,831,026,739	-	-	-	
Forward contracts	13,364,595	13,364,589	-	13,364,595	-	-	-	
Credit default swaps	828,281	508,760	-	828,281	-	-	-	
Financial futures	56,233,659	56,233,659	56,233,659	-	-	-	-	
Separate account assets	52,592,632,278	52,592,632,278	35,002,336,084	15,677,052,707	1,914,243,493	-	-	
Financial liabilities:								
Repurchase agreements	3,218,943,002	3,218,943,002	-	3,218,943,002	-	-	-	
Debt	49,925,247	49,925,247	-	49,925,247	-	-	-	
Guaranteed investment contracts	15,549,879,560	16,206,695,519	-	-	15,549,879,560	-	-	
Group annuity contracts and other deposits	1,841,126,406	2,052,598,709	-	-	1,841,126,406	-	-	
Individual annuity contracts	24,495,226,559	25,861,224,546	-	-	24,495,226,559	-	-	
Supplementary contracts	942,818,733	941,934,595	-	-	942,818,733	-	-	
Derivatives:								
Interest rate swaps	12,289,377,893	11,922,119,773	-	12,289,377,893	-	-	-	
Options	34,677,920	34,677,920	34,677,920	-	-	-	-	
Currency swaps	1,309,337,434	1,294,378,119	-	1,309,337,434	-	-	-	
Forward contracts	303,122,833	301,363,142	-	303,122,833	-	-	-	
Credit default swaps	152,317,303	152,684,010	-	152,317,303	-	-	-	
Financial futures	28,907,894	28,907,894	28,907,894	-	-	-	-	

⁽¹⁾Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had statutory carrying values of \$24,157,532,067.

As of June 30, 2024 and December 31, 2023, the Company had no investments where it was not practicable to estimate fair value.

Note 21 – Other Items

- Unusual or infrequent items - No change
- Troubled debt restructuring - No change
- Other disclosures and unusual items:

Business risks

The Company operates in a business environment subject to various risks and uncertainties. The principal risks include insurance and underwriting risks, investment and interest rate risks, currency exchange risk and credit risk. The combined impact of these risks could have a material, adverse effect on the Company's financial statements or result in operating losses in future periods. The Company employs the use of reinsurance, portfolio diversification, asset/liability management processes and other risk management techniques to mitigate the impact of these risks. This condensed risks and uncertainties disclosure should be read in conjunction with the disclosure in the Company's 2023 Annual Statement.

Insurance and underwriting risks

The Company prices its products based on estimated benefit payments reflecting assumptions with respect to mortality, morbidity, longevity, persistency, interest rates and other factors. If actual policy experience emerges that is significantly and adversely different from assumptions used in product pricing, the effect could be material to the profitability of the Company. For participating whole life products, the Company's dividends to policyholders primarily reflect the difference between actual investment, mortality, expense and persistency experience and the experience embedded in the whole life premiums and guaranteed elements. The Company also reinsures certain life insurance and other long-term care insurance policies to mitigate the impact of its underwriting risk.

NOTES TO FINANCIAL STATEMENTS

Investment and interest rate risks

The fair value, cash flows and earnings of investments can be influenced by a variety of factors including changes in interest rates, credit spreads, equity markets, portfolio asset allocation and general economic conditions. The Company employs a rigorous asset/liability management process to help mitigate the economic impacts of various investment risks, in particular interest rate risk. By effectively matching the market sensitivity of assets with the liabilities they support, the impact of interest rate changes is addressed, on an economic basis, as the change in the value of the asset is offset by a corresponding change in the value of the supported liability. The Company uses derivatives, such as interest rate swaps and swaptions, as well as synthetic assets to reduce interest rate and duration imbalances determined in asset/liability analyses.

The levels of U.S. interest rates are influenced by U.S. monetary policies and by the relative attractiveness of U.S. markets to investors versus other global markets. As interest rates increase, certain debt securities may experience amortization or prepayment speeds that are slower than those assumed at purchase, impacting the expected maturity of these securities and the ability to reinvest the proceeds at the higher yields. Rising interest rates may also result in a decrease in the fair value of the investment portfolio. As interest rates decline, certain debt securities may experience accelerated amortization and prepayment speeds than what was assumed at purchase. During such periods, the Company is at risk of lower net investment income as it may not be able to reinvest the proceeds at comparable yields. Declining interest rates may also increase the fair value of the investment portfolio.

Interest rates also have an impact on the Company's products with guaranteed minimum payouts and on interest credited to account holders. As interest rates decrease, investment spreads may contract as crediting rates approach minimum guarantees, resulting in an increased liability.

In periods of increasing interest rates, policy loans, surrenders and withdrawals may increase as policyholders seek investments with higher perceived returns. This could result in cash outflows requiring the Company to sell invested assets at a time when the prices of those assets are adversely affected by the increase in market interest rates, which could cause the Company to realize investment losses.

Currency exchange risk

The Company has currency risk due to its non-U.S. dollar denominated investments and medium-term notes along with its indirect international operations. The Company mitigates a portion of its currency risk through the use of cross-currency swaps and forward contracts. Cross-currency swaps are used to minimize currency risk for certain non-U.S. dollar assets and liabilities through a pre-specified exchange of interest and principal. Forward contracts are used to hedge movements in exchange rates.

Credit and other market risks

The Company manages its investments to limit credit and other market risks by diversifying its portfolio among various security types and industry sectors as well as purchasing credit default swaps to transfer some of the risk.

Stressed conditions, volatility and disruptions in global capital markets or in particular markets or financial asset classes can have an adverse effect on the Company, in part because the Company has a large investment portfolio and assets supporting the Company's insurance liabilities are sensitive to changing market factors. Global market factors, including interest rates, credit spread, equity prices, real estate markets, foreign currency exchange rates, consumer spending, business investment, government spending, the volatility and strength of the capital markets, deflation and inflation, all affect the business and economic environment and, ultimately, the profitability of the Company's business. Disruptions in one market or asset class can also spread to other markets or asset classes. Upheavals in the financial markets can also affect the Company's business through their effects on general levels of economic activity, employment and customer behavior.

Asset-based fees calculated as a percentage of the separate account assets are a source of revenue to the Company. Gains and losses in the investment markets may result in corresponding increases and decreases in the Company's separate account assets and related revenue.

Political Uncertainties

Political events, domestically or internationally, may directly or indirectly trigger or exacerbate risks related to product offerings, profitability, or any of the risk factors described above. Whether those underlying risk factors are driven by geopolitics or not, the Company's dynamic approach to managing risks enables management to identify risks, internally and externally, develop mitigation plans, and respond to risks in an attempt to proactively reduce the potential impact of each underlying risk factor on the Company.

- d. Business interruption insurance recoveries - No change
- e. State transferrable tax credits - No change
- f. Subprime mortgage related risk exposure:
 - (1) No change
 - (2) No change

NOTES TO FINANCIAL STATEMENTS

(3) Direct exposure through other investments:

Alt-A:	Six Months Ended June 30, 2024			
	Actual Cost	Carrying Value	Fair Value	OTTI
a. Residential mortgage-backed securities	\$ 78,696,300	\$ 98,873,668	\$ 105,013,146	\$ 575,788
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	\$ 5,193,033	\$ 6,455,109	\$ 6,376,526	\$ 18,743
f. Other assets	-	-	-	-
g. Total	<u>\$ 83,889,333</u>	<u>\$ 105,328,777</u>	<u>\$ 111,389,672</u>	<u>\$ 594,531</u>

*The Company's SCA, C.M. Life, has investments in Alt-A and subprime mortgages, as does C.M. Life's SCA, MML Bay State. These investments comprise less than 1% of the Company's invested assets.

Alt-A:	Year Ended December 31, 2023			
	Actual Cost	Carrying Value	Fair Value	OTTI
a. Residential mortgage-backed securities	\$ 124,685,493	\$ 165,493,538	\$ 153,262,325	\$ 2,050,194
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	5,758,531	8,079,500	7,126,314	100,658
f. Other assets	-	-	-	-
g. Total	<u>\$ 130,444,024</u>	<u>\$ 173,573,038</u>	<u>\$ 160,388,639</u>	<u>\$ 2,150,852</u>

*The Company's SCA, C.M. Life, has investments in Alt-A and subprime mortgages, as does C.M. Life's SCA, MML Bay State. These investments comprise less than 1% of the Company's invested assets.

(4) The Company has no underwriting exposure to subprime mortgage risk through Mortgage Guaranty or Financial Guaranty insurance coverage.

g. Retained asset accounts - No change

h. Insurance-linked securities – No change

i. As of June 30, 2024, the Company had \$1,284,508,080 of net negative (disallowed) IMR in aggregate and in the general account.

As of June 30, 2024, the Company had \$1,284,508,080 of negative IMR admitted in the general account.

As of June 30, 2024, the calculated adjusted general capital and surplus was \$24,676,738,775.

As of June 30, 2024, the percentage of adjusted general capital and surplus for which the admitted disallowed IMR represents was 5%.

The following represents allocated gains (losses) to IMR from derivatives:

	June 30, 2024
Unamortized fair value derivative gains	\$ 2,831,554,281
Unamortized fair value derivative losses	(3,878,225,163)
Total unamortized fair value derivative gains (losses) realized to IMR	<u>\$ (1,046,670,882)</u>

When the Company sells bonds and recognizes losses due to interest-rate related factors, and the realized losses are transferred to the IMR, the sales proceeds are generally used for reinvestment as governed by prudent asset liability management (ALM) policies and procedures. Such sales of bonds are intermittently used to meet liquidity needs and managed within the ALM framework.

IMR losses for fixed income related derivatives were in accordance with documented risk management procedures, as well as the Company's derivative use plans, and reflect the same historical treatment of derivative gains reversed to IMR and amortized rather than immediately recognized as realized gain upon termination.

As of the period ended June 30, 2024, the IMR asset admitted under the currently adopted statutory accounting interpretation includes approximately \$134,000,000, net of tax, related to various Funds Withheld (FWH) reinsurance treaties. Included in the FWH assets are reimbursements of capital losses on the invested assets to back the ceded reinsurance liabilities and are recorded as an adjustment to the income statement. Both the IMR and FWH assets are admitted under statutory accounting guidance.

Note 22 – Events Subsequent

Management of the Company has evaluated subsequent events through August 15, 2024, the date the financial statements were available to be issued to state regulators and subsequently on the Company's website. No events have occurred subsequent to the date of the financial statements.

Note 23 – Reinsurance - No change**Note 24 – Retrospectively Rated Contracts and Contracts Subject to Redetermination**

a – d. No change

NOTES TO FINANCIAL STATEMENTS

- e. The Company does not write any accident and health insurance premium that is subject to the Affordable Care Act risk-sharing provisions.

Note 25 – Change in Incurred Losses and Loss Adjustment Expenses

There was no increase to reserves in 2024 for incurred losses and loss adjustment expenses attributable to insured events of prior years, which considered corrections of prior year errors.

Note 26 – Intercompany Pooling Arrangements - No change

Note 27 – Structured Settlements - No change

Note 28 – Health Care Receivables - No change

Note 29 – Participating Policies - No change

Note 30 – Premium Deficiency Reserves

(1) Liability carried for premium deficiency reserves	\$185,000,000
(2) Date of the most recent evaluation of this liability	6/30/2024
(3) Was anticipated investment income utilized in the calculation?	Yes

Note 31 – Reserves for Life Contracts and Annuity Contracts - No change

Note 32 – Analysis of Annuity Actuarial Reserves and Deposit Type Liabilities by Withdrawal Characteristics - No change

Note 33 – Analysis of Life Actuarial Reserves by Withdrawal Characteristics - No change

Note 34 – Premium and Annuity Considerations Deferred and Uncollected - No change

Note 35 – Separate Accounts - No change

Note 36 – Loss/Claim Adjustment Expenses - No change

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

- 1.1 Did the reporting entity experience any material transactions requiring the filing of Disclosure of Material Transactions with the State of Domicile, as required by the Model Act? Yes [] No [X]
- 1.2 If yes, has the report been filed with the domiciliary state? Yes [] No []
- 2.1 Has any change been made during the year of this statement in the charter, by-laws, articles of incorporation, or deed of settlement of the reporting entity? Yes [] No [X]
- 2.2 If yes, date of change:
- 3.1 Is the reporting entity a member of an Insurance Holding Company System consisting of two or more affiliated persons, one or more of which is an insurer? Yes [X] No []
If yes, complete Schedule Y, Parts 1 and 1A.
- 3.2 Have there been any substantial changes in the organizational chart since the prior quarter end? Yes [] No [X]
- 3.3 If the response to 3.2 is yes, provide a brief description of those changes.
.....
- 3.4 Is the reporting entity publicly traded or a member of a publicly traded group? Yes [] No [X]
- 3.5 If the response to 3.4 is yes, provide the CIK (Central Index Key) code issued by the SEC for the entity/group.
- 4.1 Has the reporting entity been a party to a merger or consolidation during the period covered by this statement? Yes [] No [X]
- 4.2 If yes, provide the name of the entity, NAIC Company Code, and state of domicile (use two letter state abbreviation) for any entity that has ceased to exist as a result of the merger or consolidation.

1	2	3
Name of Entity	NAIC Company Code	State of Domicile

5. If the reporting entity is subject to a management agreement, including third-party administrator(s), managing general agent(s), attorney-in-fact, or similar agreement, have there been any significant changes regarding the terms of the agreement or principals involved? Yes [] No [X] N/A []
If yes, attach an explanation.
.....
- 6.1 State as of what date the latest financial examination of the reporting entity was made or is being made. 12/31/2019
- 6.2 State the as of date that the latest financial examination report became available from either the state of domicile or the reporting entity. This date should be the date of the examined balance sheet and not the date the report was completed or released. 12/31/2019
- 6.3 State as of what date the latest financial examination report became available to other states or the public from either the state of domicile or the reporting entity. This is the release date or completion date of the examination report and not the date of the examination (balance sheet date). 06/25/2021
- 6.4 By what department or departments?
Commonwealth of Massachusetts Division of Insurance
- 6.5 Have all financial statement adjustments within the latest financial examination report been accounted for in a subsequent financial statement filed with Departments? Yes [] No [] N/A [X]
- 6.6 Have all of the recommendations within the latest financial examination report been complied with? Yes [X] No [] N/A []
- 7.1 Has this reporting entity had any Certificates of Authority, licenses or registrations (including corporate registration, if applicable) suspended or revoked by any governmental entity during the reporting period? Yes [] No [X]
- 7.2 If yes, give full information:
.....
- 8.1 Is the company a subsidiary of a bank holding company regulated by the Federal Reserve Board? Yes [] No [X]
- 8.2 If response to 8.1 is yes, please identify the name of the bank holding company.
.....
- 8.3 Is the company affiliated with one or more banks, thrifts or securities firms? Yes [X] No []
- 8.4 If response to 8.3 is yes, please provide below the names and location (city and state of the main office) of any affiliates regulated by a federal regulatory services agency [i.e. the Federal Reserve Board (FRB), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC) and the Securities Exchange Commission (SEC)] and identify the affiliate's primary federal regulator.

1	2	3	4	5	6
Affiliate Name	Location (City, State)	FRB	OCC	FDIC	SEC
Barings LLC	Charlotte, NC .....	.....	.....	.....	YES.....
Baring International Investment Limited	London, UK .....	.....	.....	.....	YES.....
Barings Securities LLC	Charlotte, NC .....	.....	.....	.....	YES.....
MML Distributors, LLC	Springfield, MA .....	.....	.....	.....	YES.....
MML Investment Advisers, LLC	Springfield, MA .....	.....	.....	.....	YES.....
MML Investors Services, LLC	Springfield, MA .....	.....	.....	.....	YES.....
MML Strategic Distributors, LLC	Springfield, MA .....	.....	.....	.....	YES.....
The MassMutual Trust Company, OCC	Windsor, CT .....	.....	YES.....	.....	.....
Flourish Financial, LLC	New York, NY .....	.....	.....	.....	YES.....

GENERAL INTERROGATORIES

- 9.1 Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) of the reporting entity subject to a code of ethics, which includes the following standards? Yes No
- (a) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- (b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity;
- (c) Compliance with applicable governmental laws, rules and regulations;
- (d) The prompt internal reporting of violations to an appropriate person or persons identified in the code; and
- (e) Accountability for adherence to the code.
- 9.11 If the response to 9.1 is No, please explain:
.....
- 9.2 Has the code of ethics for senior managers been amended? Yes No
- 9.21 If the response to 9.2 is Yes, provide information related to amendment(s).
.....
- 9.3 Have any provisions of the code of ethics been waived for any of the specified officers? Yes No
- 9.31 If the response to 9.3 is Yes, provide the nature of any waiver(s).
.....

FINANCIAL

- 10.1 Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement? Yes No
- 10.2 If yes, indicate any amounts receivable from parent included in the Page 2 amount: \$

INVESTMENT

- 11.1 Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or otherwise made available for use by another person? (Exclude securities under securities lending agreements.) Yes No
- 11.2 If yes, give full and complete information relating thereto:
Repurchase agreements, Letter stock or securities restricted as to sale - excluding FHLB Capital Stock, FHLB Capital Stock, On deposit with states, pledged as collateral - excluding collateral pledged to an FHLB and Pledged as collateral to FHLB - including assets backing funding agreements.
12. Amount of real estate and mortgages held in other invested assets in Schedule BA: \$ 5,267,114,976
13. Amount of real estate and mortgages held in short-term investments: \$
- 14.1 Does the reporting entity have any investments in parent, subsidiaries and affiliates? Yes No
- 14.2 If yes, please complete the following:
- | | 1
Prior Year-End
Book/Adjusted
Carrying Value | 2
Current Quarter
Book/Adjusted
Carrying Value |
|---|--|---|
| 14.21 Bonds | \$ 9,826,793,733 | \$ 9,102,264,542 |
| 14.22 Preferred Stock | \$ | \$ |
| 14.23 Common Stock | \$ 25,089,291,906 | \$ 21,308,781,685 |
| 14.24 Short-Term Investments | \$ | \$ |
| 14.25 Mortgage Loans on Real Estate | \$ | \$ |
| 14.26 All Other | \$ 6,128,419,163 | \$ 6,687,801,054 |
| 14.27 Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26) | \$ 41,044,504,802 | \$ 37,098,847,281 |
| 14.28 Total Investment in Parent included in Lines 14.21 to 14.26 above | \$ | \$ |
- 15.1 Has the reporting entity entered into any hedging transactions reported on Schedule DB? Yes No
- 15.2 If yes, has a comprehensive description of the hedging program been made available to the domiciliary state? Yes No N/A
- If no, attach a description with this statement.
.....
16. For the reporting entity's security lending program, state the amount of the following as of the current statement date:
- 16.1 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 \$
- 16.2 Total book/adjusted carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 \$
- 16.3 Total payable for securities lending reported on the liability page. \$

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

GENERAL INTERROGATORIES

17. Excluding items in Schedule E - Part 3 - Special Deposits, real estate, mortgage loans and investments held physically in the reporting entity's offices, vaults or safety deposit boxes, were all stocks, bonds and other securities, owned throughout the current year held pursuant to a custodial agreement with a qualified bank or trust company in accordance with Section 1, III - General Examination Considerations, F. Outsourcing of Critical Functions, Custodial or Safekeeping Agreements of the NAIC Financial Condition Examiners Handbook? Yes [X] No []
- 17.1 For all agreements that comply with the requirements of the NAIC Financial Condition Examiners Handbook, complete the following:

1 Name of Custodian(s)	2 Custodian Address
Citibank, N.A.	333 West 34th Street, New York, NY 10001
State Street Bank and Trust Company	JAB2NWN, Quincy, MA 02171
Citibank, N.A.	N. Quincy, MA 02171
Citibank, N.A.	London Canada SQ Service CTR Citigroup CTR 25 Canada Sq London E14 5LB UK

- 17.2 For all agreements that do not comply with the requirements of the NAIC Financial Condition Examiners Handbook, provide the name, location and a complete explanation:

1 Name(s)	2 Location(s)	3 Complete Explanation(s)

- 17.3 Have there been any changes, including name changes, in the custodian(s) identified in 17.1 during the current quarter? Yes [] No [X]

- 17.4 If yes, give full information relating thereto:

1 Old Custodian	2 New Custodian	3 Date of Change	4 Reason

- 17.5 Investment management – Identify all investment advisors, investment managers, broker/dealers, including individuals that have the authority to make investment decisions on behalf of the reporting entity. For assets that are managed internally by employees of the reporting entity, note as such. ["...that have access to the investment accounts"; "...handle securities"]

1 Name of Firm or Individual	2 Affiliation
20 Gates Management, LLC	U.....
Angelo, Gordon & Co., L.P.	U.....
Apollo Capital Management, L.P.	U.....
Apollo Insurance Solutions Group LP	U.....
Ares Management LLC	U.....
Barings LLC	A.....
Carlyle Aviation Group Capital Markets LLC	U.....
Centerbridge Martello Advisors, LLC	U.....
Fractal Investments LLC	U.....
Franklin Advisers, Inc.	U.....
Great-West Capital Management LLC	U.....
IFM Investors Pty Ltd	U.....
Invesco Investment Management Company	U.....
Jefferies Finance LLC	A.....
Pacific Investment Management Company LLC	U.....
Western Asset Management Company	U.....

- 17.5097 For those firms/individuals listed in the table for Question 17.5, do any firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") manage more than 10% of the reporting entity's invested assets?..... Yes [] No [X]

- 17.5098 For firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") listed in the table for Question 17.5, does the total assets under management aggregate to more than 50% of the reporting entity's invested assets?..... Yes [] No [X]

- 17.6 For those firms or individuals listed in the table for 17.5 with an affiliation code of "A" (affiliated) or "U" (unaffiliated), provide the information for the table below.

1 Central Registration Depository Number	2 Name of Firm or Individual	3 Legal Entity Identifier (LEI)	4 Registered With	5 Investment Management Agreement (IMA) Filed
155480	20 Gates Management, LLC	549300P9T431XY751068	SEC	NO.....
131940	Angelo, Gordon & Co., L.P.	XXJ808RONB9FETPCB63	SEC	NO.....
143161	Apollo Capital Management, L.P.	549300C43L0TF7UALB02	SEC	NO.....
143161	Apollo Insurance Solutions Group LP	549300C43L0TF7UALB02	SEC	NO.....
130074	Ares Management LLC	549300JA9GMPFTSVQQ05	SEC	NO.....
106006	Barings LLC	ANDKRHQKPRRG4Q2KLR05	SEC	DS.....
168456	Carlyle Aviation Group Capital Markets LLC	54930010815L9BP71G93	SEC	NO.....
311767	Fractal Investments LLC	984500D14JFD006CBC96	SEC	NO.....
104517	Franklin Advisers, Inc.	B1CG1NRZIDDJDDQEXB52	SEC	NO.....
107272	Great-West Capital Management LLC	549300S3EPOXVXYMD485	SEC	NO.....
162754	IFM Investors Pty Ltd	5493002BVK0Q17K17H93	SEC	NO.....
110363	Invesco Investment Management Company	037NHJVF7S22110N0U83	SEC	NO.....
162264	Jefferies Finance LLC	549300SKVB18YSSIDT75	SEC	NO.....
104559	Pacific Investment Management Company LLC	549300KGPYQZXGMYYN38	SEC	NO.....
801-8162	Western Asset Management Company	549300C5A561UXU1CN46	SEC	NO.....
157359	Centerbridge Martello Advisors, LLC	549300F5X7LPP05D3544	SEC	NO.....

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

- 18.1 Have all the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office been followed? Yes [] No [X]
- 18.2 If no, list exceptions:
 At 6/30/2024, 207 issues for 168 issuers did not meet the filing requirements of the Purposes and Procedures Manual. The majority of these issues currently lack one or more of the following: Valid cusip/PPN, audited financials and/or executed legal documentation.
 Exceptions totaled \$986,926,684.90 or 0.54% of all assets.
19. By self-designating 5GI securities, the reporting entity is certifying the following elements for each self-designated 5GI security:
 a. Documentation necessary to permit a full credit analysis of the security does not exist or an NAIC CRP credit rating for an FE or PL security is not available.
 b. Issuer or obligor is current on all contracted interest and principal payments.
 c. The insurer has an actual expectation of ultimate payment of all contracted interest and principal.
 Has the reporting entity self-designated 5GI securities? Yes [X] No []
20. By self-designating PLGI securities, the reporting entity is certifying the following elements of each self-designated PLGI security:
 a. The security was purchased prior to January 1, 2018.
 b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
 c. The NAIC Designation was derived from the credit rating assigned by an NAIC CRP in its legal capacity as a NRSRO which is shown on a current private letter rating held by the insurer and available for examination by state insurance regulators.
 d. The reporting entity is not permitted to share this credit rating of the PL security with the SVO.
 Has the reporting entity self-designated PLGI securities? Yes [] No [X]
21. By assigning FE to a Schedule BA non-registered private fund, the reporting entity is certifying the following elements of each self-designated FE fund:
 a. The shares were purchased prior to January 1, 2019.
 b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
 c. The security had a public credit rating(s) with annual surveillance assigned by an NAIC CRP in its legal capacity as an NRSRO prior to January 1, 2019.
 d. The fund only or predominantly holds bonds in its portfolio.
 e. The current reported NAIC Designation was derived from the public credit rating(s) with annual surveillance assigned by an NAIC CRP in its legal capacity as an NRSRO.
 f. The public credit rating(s) with annual surveillance assigned by an NAIC CRP has not lapsed.
 Has the reporting entity assigned FE to Schedule BA non-registered private funds that complied with the above criteria? Yes [] No [X]

GENERAL INTERROGATORIES

PART 2 - LIFE AND ACCIDENT AND HEALTH COMPANIES/FRATERNAL BENEFIT SOCIETIES

Life and Accident Health Companies/Fraternal Benefit Societies:

1. Report the statement value of mortgage loans at the end of this reporting period for the following categories: 1
Amount
- 1.1 Long-Term Mortgages In Good Standing
- 1.11 Farm Mortgages\$.....
- 1.12 Residential Mortgages\$.....5,643,108,309
- 1.13 Commercial Mortgages\$.....18,498,006,578
- 1.14 Total Mortgages in Good Standing\$.....24,141,114,887
- 1.2 Long-Term Mortgages In Good Standing with Restructured Terms
- 1.21 Total Mortgages in Good Standing with Restructured Terms.....\$.....
- 1.3 Long-Term Mortgage Loans Upon which Interest is Overdue more than Three Months
- 1.31 Farm Mortgages\$.....
- 1.32 Residential Mortgages\$.....
- 1.33 Commercial Mortgages\$.....
- 1.34 Total Mortgages with Interest Overdue more than Three Months\$.....
- 1.4 Long-Term Mortgage Loans in Process of Foreclosure
- 1.41 Farm Mortgages\$.....
- 1.42 Residential Mortgages\$.....
- 1.43 Commercial Mortgages\$.....142,971,334
- 1.44 Total Mortgages in Process of Foreclosure\$.....142,971,334
- 1.5 Total Mortgage Loans (Lines 1.14 + 1.21 + 1.34 + 1.44) (Page 2, Column 3, Lines 3.1 + 3.2)\$.....24,284,086,221
- 1.6 Long-Term Mortgages Foreclosed, Properties Transferred to Real Estate in Current Quarter
- 1.61 Farm Mortgages\$.....
- 1.62 Residential Mortgages\$.....
- 1.63 Commercial Mortgages\$.....
- 1.64 Total Mortgages Foreclosed and Transferred to Real Estate\$.....
2. Operating Percentages:
- 2.1 A&H loss percent %
- 2.2 A&H cost containment percent %
- 2.3 A&H expense percent excluding cost containment expenses %
- 3.1 Do you act as a custodian for health savings accounts? Yes [] No [X]
- 3.2 If yes, please provide the amount of custodial funds held as of the reporting date\$.....
- 3.3 Do you act as an administrator for health savings accounts? Yes [] No [X]
- 3.4 If yes, please provide the balance of the funds administered as of the reporting date\$.....
4. Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states? Yes [X] No []
- 4.1 If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of domicile of the reporting entity? Yes [] No []

Fraternal Benefit Societies Only:

- 5.1 In all cases where the reporting entity has assumed accident and health risks from another company, provisions should be made in this statement on account of such reinsurances for reserve equal to that which the original company would have been required to establish had it retained the risks. Has this been done? Yes [] No [] N/A []
- 5.2 If no, explain:
.....
- 6.1 Does the reporting entity have outstanding assessments in the form of liens against policy benefits that have increased surplus? Yes [] No []
- 6.2 If yes, what is the date(s) of the original lien and the total outstanding balance of liens that remain in surplus?

Date	Outstanding Lien Amount
.....

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE S - CEDED REINSURANCE

Showing All New Reinsurance Treaties - Current Year to Date

1 NAIC Company Code	2 ID Number	3 Effective Date	4 Name of Reinsurer	5 Domiciliary Jurisdiction	6 Type of Reinsurance Ceded	7 Type of Business Ceded	8 Type of Reinsurer	9 Certified Reinsurer Rating (1 through 6)	10 Effective Date of Certified Reinsurer Rating
88340	59-2859797	01/01/2023	HANNOVER LIFE REASSURANCE COMPANY OF AMERICA (HAH6)	FL	YRT/I	OL	Authorized		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company
SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Current Year To Date - Allocated by States and Territories

	1	Life Contracts		Direct Business Only			7
		2	3	4	5	6	
States, Etc.	Active Status (a)	Life Insurance Premiums	Annuity Considerations	Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees	Other Considerations	Total Columns 2 Through 5	Deposit-Type Contracts
1. Alabama	AL	27,526,270	65,951,550	3,877,027	11,755,005	109,109,852	13,679,420
2. Alaska	AK	1,256,764	17,812,637	289,615	485,163	19,844,179	9,957,526
3. Arizona	AZ	55,433,581	274,124,214	6,154,101	1,023,227	336,735,123	10,821,188
4. Arkansas	AR	20,562,180	32,435,252	1,548,037	248,890	54,794,359	4,204,648
5. California	CA	433,050,488	793,353,048	34,505,667	229,053,544	1,489,962,747	138,906,377
6. Colorado	CO	63,745,365	167,368,897	6,134,167	8,382,122	245,630,551	6,172,592
7. Connecticut	CT	109,100,288	145,791,086	9,127,020	52,288,697	316,307,091	9,488,123
8. Delaware	DE	19,010,959	30,865,624	1,143,183	11,345,551	62,365,317	2,657,477,367
9. District of Columbia	DC	12,308,250	10,885,448	1,999,519	6,035,439	31,228,656	3,849,013
10. Florida	FL	290,911,831	572,905,718	20,267,756	42,622,384	926,707,689	81,885,759
11. Georgia	GA	120,152,704	199,727,281	12,997,375	32,897,488	365,774,848	25,371,465
12. Hawaii	HI	13,550,892	22,493,406	1,629,965	1,865,067	39,539,330	1,779,256
13. Idaho	ID	15,559,310	35,391,871	1,060,965	4,223,094	56,235,240	2,382,562
14. Illinois	IL	165,122,700	214,550,446	12,344,660	120,840,044	512,857,850	58,912,671
15. Indiana	IN	61,113,544	134,778,563	5,040,911	16,361,009	217,294,027	16,029,143
16. Iowa	IA	23,312,452	50,148,804	2,027,417	8,749,756	84,238,429	12,684,272
17. Kansas	KS	28,277,714	54,476,534	2,708,447	9,317,311	94,780,006	2,486,698
18. Kentucky	KY	16,126,405	58,069,181	2,743,975	(1,530,396)	75,409,165	5,164,000
19. Louisiana	LA	27,647,073	79,903,356	3,534,808	526,552	111,611,789	14,090,742
20. Maine	ME	9,989,768	34,867,155	1,251,764	2,089,472	48,198,159	605,990
21. Maryland	MD	74,403,168	91,691,095	13,006,703	28,409,547	207,510,513	10,879,995
22. Massachusetts	MA	126,258,099	834,391,230	15,620,345	442,825,533	1,419,095,207	38,640,419
23. Michigan	MI	67,700,600	230,170,174	7,129,647	51,437,080	356,437,501	33,434,923
24. Minnesota	MN	40,047,086	133,054,347	4,494,936	38,207,536	215,803,905	20,337,222
25. Mississippi	MS	24,183,950	32,977,261	4,949,188	658,332	62,768,731	3,337,026
26. Missouri	MO	37,119,515	101,835,051	5,283,119	16,868,841	161,106,526	21,167,165
27. Montana	MT	6,614,451	21,406,841	972,237	119,458	29,112,987	2,269,113
28. Nebraska	NE	15,723,941	17,160,441	2,843,334	6,837,767	42,565,483	6,045,348
29. Nevada	NV	27,635,041	47,069,429	1,956,437	6,893,500	83,554,407	3,264,580
30. New Hampshire	NH	19,303,198	90,423,902	2,200,194	5,746,242	117,673,536	3,190,417
31. New Jersey	NJ	256,234,688	273,935,511	18,378,623	68,864,578	617,413,400	41,671,233
32. New Mexico	NM	13,533,528	34,191,663	1,479,043	57,929	49,262,163	2,156,530
33. New York	NY	775,066,277	928,965,377	41,326,841	134,182,080	1,879,540,575	66,043,147
34. North Carolina	NC	88,231,586	214,281,849	15,570,408	7,463,188	325,547,031	37,026,331
35. North Dakota	ND	8,223,458	10,309,082	432,863	109,927	19,075,330	3,118,451
36. Ohio	OH	71,403,881	334,912,640	9,008,233	50,500,155	465,824,909	64,551,032
37. Oklahoma	OK	47,605,362	40,303,838	4,047,598	12,851,136	104,807,934	7,082,284
38. Oregon	OR	20,278,262	74,484,708	3,004,167	5,532,539	103,299,676	7,880,930
39. Pennsylvania	PA	183,363,631	355,165,528	21,106,706	94,249,914	653,885,779	9,188,673
40. Rhode Island	RI	11,608,550	42,302,759	1,543,555	5,873,271	61,328,135	1,195,640
41. South Carolina	SC	49,976,829	103,004,564	8,295,988	5,630,102	166,907,483	16,037,846
42. South Dakota	SD	4,241,625	13,201,081	405,394	116,617	17,964,717	2,099,653
43. Tennessee	TN	79,064,459	109,413,945	10,140,178	22,622,183	221,240,765	17,496,495
44. Texas	TX	252,746,631	577,847,334	25,137,600	220,842,325	1,076,573,890	72,006,379
45. Utah	UT	32,691,811	50,822,137	2,131,689	1,258,083	86,903,720	11,516,368
46. Vermont	VT	11,666,867	31,390,304	813,642	3,900,901	47,771,714	514,663
47. Virginia	VA	103,106,317	158,334,377	15,666,917	44,598,779	321,706,390	75,364,396
48. Washington	WA	45,405,123	165,277,785	6,158,077	18,849,645	235,690,630	3,812,340
49. West Virginia	WV	6,227,247	26,186,140	791,399	2,775,105	35,979,891	12,890,455
50. Wisconsin	WI	32,242,774	81,612,463	3,413,912	12,867,108	130,136,257	3,014,337
51. Wyoming	WY	5,870,015	18,634,757	339,197	6,679	24,850,648	1,937,643
52. American Samoa	AS	N	N	N	N	N	N
53. Guam	GU	786	N	10,348	N	11,134	N
54. Puerto Rico	PR	41,877,049	8,371,342	5,202,689	1,884,868	57,335,948	92,769
55. U.S. Virgin Islands	VI	26,068	N	(97,860)	N	(71,792)	N
56. Northern Mariana Islands	MP	N	N	N	N	N	N
57. Canada	CAN	1,111,633	415,866	33,891	N	1,561,390	3,668
58. Aggregate Other Aliens	OT	7,905,666	64,950	291,055	27,848,700	36,110,371	50,954
59. Subtotal	XXX	4,102,457,710	8,249,509,842	383,474,672	1,899,469,067	14,634,911,291	3,675,267,237
90. Reporting entity contributions for employee benefits plans	XXX						
91. Dividends or refunds applied to purchase paid-up additions and annuities	XXX	841,313,234	331,860			841,645,094	
92. Dividends or refunds applied to shorten endowment or premium paying period	XXX						
93. Premium or annuity considerations waived under disability or other contract provisions	XXX	15,222,995		5,365,706		20,588,701	
94. Aggregate or other amounts not allocable by State	XXX	144,213,635				144,213,635	
95. Totals (Direct Business)	XXX	5,103,207,574	8,249,841,702	388,840,378	1,899,469,067	15,641,358,721	3,675,267,237
96. Plus Reinsurance Assumed	XXX	19,660,808	230,590,426		296,186,067	546,437,301	385,063,869
97. Totals (All Business)	XXX	5,122,868,382	8,480,432,128	388,840,378	2,195,655,134	16,187,796,022	4,060,331,106
98. Less Reinsurance Ceded	XXX	670,580,604	3,691,013,191	81,440,224	1,588,418,500	6,031,452,519	
99. Totals (All Business) less Reinsurance Ceded	XXX	4,452,287,778	4,789,418,937	307,400,154	607,236,634	10,156,343,504	4,060,331,106
DETAILS OF WRITE-INS							
58001. HKG Hong Kong	XXX	91,077				91,077	
58002. ZZZ Other Alien	XXX	7,814,589	64,950	291,055	27,848,700	36,019,294	50,954
58003.	XXX						
58998. Summary of remaining write-ins for Line 58 from overflow page	XXX						
58999. Totals (Lines 58001 through 58003 plus 58998)(Line 58 above)	XXX	7,905,666	64,950	291,055	27,848,700	36,110,371	50,954
9401. Reinvested Net Non Forfeiture Option Proceeds	XXX	144,213,635				144,213,635	
9402.	XXX						
9403.	XXX						
9498. Summary of remaining write-ins for Line 94 from overflow page	XXX						
9499. Totals (Lines 9401 through 9403 plus 9498)(Line 94 above)	XXX	144,213,635				144,213,635	

(a) Active Status Counts:

- 1. L - Licensed or Chartered - Licensed insurance carrier or domiciled RRG..... 52
- 2. R - Registered - Non-domiciled RRGs.....
- 3. E - Eligible - Reporting entities eligible or approved to write surplus lines in the state.....
- 4. Q - Qualified - Qualified or accredited reinsurer.....
- 5. N - None of the above - Not allowed to write business in the state..... 5

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

The following entities are general partner level or above of **Massachusetts Mutual Life Insurance Company** (Parent)

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY	04-1590850	65935	Massachusetts
Direct & Indirect Owned Subsidiaries:			
C.M. Life Insurance Company	06-1041383	93432	Connecticut
MML Bay State Life Insurance Company	43-0581430	70416	Connecticut
CML Special Situations Investor LLC	None		Delaware
CM Life Mortgage Lending LLC	None		Delaware
CML Mezzanine Investor III, LLC	None		Delaware
CML Global Capabilities LLC	None		Delaware
MM Global Capabilities I LLC	None		Delaware
MassMutual Global Business Services India LLP	None		India
MM Global Capabilities (Netherlands) B.V.	None		Netherlands
MassMutual Global Business Services Romania S.R.L.	None		Romania
MM Global Capabilities II LLC	None		Delaware
MM Global Capabilities III LLC	None		Delaware
MM/Barings Multifamily TEBS 2020 LLC	None		Delaware
Berkshire Way LLC	04-1590850		Delaware
MML Special Situations Investor LLC	None		Delaware
Timberland Forest Holding LLC	47-5322979		Delaware
Lyme Adirondack Forest Company, LLC	None		Delaware
Lyme Adirondack Timberlands I, LLC	None		Delaware
Lyme Adirondack Timberlands II, LLC	None		Delaware
Lyme Adirondack Timber Sales, LLC	None		Delaware
MSP-SC, LLC	04-1590850		Delaware
Insurance Road LLC	04-1590850		Delaware
MassMutual Trad Private Equity LLC	04-1590850		Delaware
MassMutual Intellectual Property LLC	04-1590850		Delaware
Trad Investments I LLC	None		Delaware
ITPS Holding LLC	None		Delaware
HITPS LLC	None		Delaware
EM Opportunities LLC	None		Delaware
MassMutual MCAM Insurance Company, Inc.	None		Vermont
MassMutual Ventures US IV GP, LLC*	None		Delaware
MassMutual Ventures US IV, L.P.	None		Delaware
MassMutual Ventures US IV, LLC	None		Delaware
MassMutual Ventures Europe/APAC I GP, LLC	None		Delaware
MassMutual Ventures Europe/APAC I GP, L.P.	None		Cayman Islands
MassMutual Ventures Europe/APAC I L.P.	None		Cayman Islands
MassMutual Ventures Southeast Asia III LLC	None		Delaware
MMV Digital I LLC	None		Cayman Islands

*This entity is owned by another or multiple entities in the group. Please refer to Sch Y Part 1A for the ownership and percentage information.

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Counterpointe Sustainable Advisors LLC	None		Delaware
CSA Intermediate Holdco LLC	None		Delaware
Counterpointe Trust Services LLC	None		Delaware
CP PACE LLC	None		Delaware
CSA Employee Services Company LLC	None		Delaware
Counterpointe Sustainable Real Estate II LLC	None		Delaware
Counterpointe Energy Solutions II LLC	None		Delaware
Counterpointe Energy Solutions (CA) II LLC	27-0105644		Delaware
Counterpointe Energy Solutions (FL) II LLC	None		Delaware
Counterpointe Energy Solutions (IL) LLC	None		Delaware
Loop-Counterpointe PACE LLC	None		Delaware
Counterpointe Energy Services LLC	None		Delaware
JFIN Parent LLC	None		Delaware
Jefferies Finance LLC	27-0105644		Delaware
JFIN GP Adviser LLC	None		Delaware
Jefferies MM Lending LLC	None		Delaware
Green SPE LLC	None		Delaware
Apex Credit Partners LLC	None		Delaware
Apex GP I LLC	None		Delaware
Apex Securitized Income Fund LP	None		Delaware
Jefferies Credit Partners LLC	None		Delaware
Jefferies Credit Management LLC	None		Delaware
JCM GP I LLC	None		Delaware
JCM H-2 Credit Fund GP LLC	None		Delaware
JCP Direct Lending CLO 2022 LLC	None		Delaware
Jefferies Direct Lending Europe SCSp SICAV-RAIF	None		Luxembourg
Jefferies Credit Management Holdings LLC	None		Delaware
JDLF GP (Europe) S.a.r.l	None		Luxembourg
JFAM GP LLC	None		Delaware
JFAM GP LP	None		Delaware
Jefferies Direct Lending Fund C LP	None		Delaware
Jefferies DLF C Holdings LLC	None		Delaware
Jefferies Direct Lending Fund C SPE LLC	None		Delaware
JDLF II GP LLC	None		Delaware
JDLF II GP LP	None		Delaware
Jefferies Direct Lending Fund II C LP	None		Delaware
Jefferies DLF 2 C Holdings LLC	None		Delaware
Jefferies Direct Lending Fund II C SPE LLC	None		Delaware
JDLF III GP LLC*	None		Delaware
JDLF III GP LP*	None		Delaware
Jefferies Direct Lending Fund III C LP	None		Delaware
JCP Direct Lending CLO 2023-1 LLC	None		Delaware
JCP Direct Lending CLO 2023 Ltd.	None		Jersey Channel Islands

*This entity is owned by another or multiple entities in the group. Please refer to Sch Y Part 1A for the ownership and percentage information.

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
JCP GP I LLC	None		Delaware
Jefferies M Super Private Credit Fund GP LLC	None		Delaware
Jefferies Private Credit BDC Inc.	None		Maryland
JCP Funding 2024 LLC	None		Delaware
Jefferies Senior Lending LLC	None		Delaware
JFIN Revolver Holdings LLC	None		Delaware
JFIN Revolver Holdings II LLC	None		Delaware
JFIN Co-Issuer Corporation	None		Delaware
JFIN Europe GP, S.a.r.l.	None		Luxembourg
Jefferies Finance Europe, S.L.P.	None		Luxembourg
Jefferies Finance Europe, SCSp	None		Luxembourg
Jefferies Finance Business Credit LLC	None		Delaware
JFIN Business Credit Fund I LLC	None		Delaware
JFIN Funding 2021 LLC	None		Delaware
JFIN LC Fund LLC	None		Delaware
JFIN Revolver CLO 2017 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-III Ltd.	None		Cayman Islands
JFIN Revolver CLO 2018 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2019 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2019-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2020 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2021-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2021-V Ltd.	None		Cayman Islands
JFIN Revolver CLO 2022-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2022-III Ltd.	None		Cayman Islands
JFIN Revolver CLO 2022-IV Ltd.	None		Cayman Islands
JFIN Revolver CLO 2024-I Ltd.	None		Delaware
JFIN Revolver CLO 2022-IV LLC	None		Cayman Islands
JFIN Revolver Fund, L.P.	None		Delaware
JFIN Revolver Funding 2021 Ltd.	None		Delaware
JFIN Revolver Funding 2021-III Ltd.	None		Delaware
JFIN Revolver Funding 2021-IV Ltd.	None		Delaware
JFIN Revolver Funding 2022-I Ltd.	None		Bermuda
JFIN Revolver SPE1 2022 LLC	None		Delaware
JFIN Revolver SPE3 2022 LLC	None		Delaware
JFIN Revolver SPE4 2022 LLC	None		Delaware
JFIN Revolver SPE4 2022 Ltd.	None		Delaware
JCP Private Loan Management GP LLC	None		Delaware
JCP Private Loan Management LP	None		Delaware
Apex Credit Holdings LLC	None		Delaware

12.2

*This entity is owned by another or multiple entities in the group. Please refer to Sch Y Part 1A for the ownership and percentage information.

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
JFIN CLO 2012 Ltd.	None		Cayman Islands
JFIN CLO 2013 Ltd.	None		Cayman Islands
JFIN CLO 2014 Ltd.	None		Cayman Islands
JFIN CLO 2014-II Ltd.	None		Cayman Islands
JFIN CLO 2015 Ltd.	None		Cayman Islands
JFIN CLO 2015-II Ltd.	None		Cayman Islands
JFIN CLO 2016 Ltd.	None		Cayman Islands
JFIN CLO 2017 Ltd.	None		Cayman Islands
JFIN CLO 2017 II Ltd.	None		Cayman Islands
Tomorrow Parent, LLC	None		Delaware
Custom Ecology Holdco, LLC	None		Delaware
Glidepath Holdings Inc.	86-2294635		Delaware
MassMutual Ascend Life Insurance Company	13-1935920	63312	Ohio
AAG Insurance Agency, LLC	31-1422717		Kentucky
Annuity Investors Life Insurance Company	31-1021738	93661	Ohio
MM Ascend Life Investor Services, LLC	31-1395344		Ohio
MM Ascend Mortgage Lending LLC	None		Ohio
Manhattan National Holding, LLC	26-3260520		Ohio
Manhattan National Life Insurance Company	45-0252531	67083	Ohio
MassMutual Mortgage Lending LLC	None		Delaware
MM Copper Hill Road LLC	04-1590850		Delaware
MMV CTF I GP LLC	None		Delaware
MassMutual Ventures Climate Technology Fund I LP	None		Delaware
MM Direct Private Investments Holding LLC	None		Delaware
MM Direct Private Investments UK Limited	None		England & Wales
DPI-ACRES Capital LLC	None		Delaware
DPI-ARES Mortgage Lending LLC	None		Delaware
MM Investment Holding	None		Cayman Islands
MMIH Bond Holdings LLC	None		Delaware
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2017-B	32-0546197		Delaware
MMAF Equipment Finance LLC 2019-A	83-3722640		Delaware
MMAF Equipment Finance LLC 2019-B	None		Delaware
MMAF Equipment Finance LLC 2020-A	None		Delaware
MMAF Equipment Finance LLC 2020-B	None		Delaware
MMAF Equipment Finance LLC 2021-A	None		Delaware
MMAF Equipment Finance LLC 2022-A	None		Delaware
MMAF Equipment Finance LLC 2022-B	None		Delaware
MMAF Equipment Finance LLC 2023-A	None		Delaware
MMAF Equipment Finance LLC 2024-A	None		Delaware
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts

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SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MML CM LLC	None		Delaware
Blueprint Income LLC	None		New York
Flourish Holding Company LLC	None		Delaware
Flourish Insurance Agency LLC	None		Delaware
Flourish Digital Assets LLC	None		Delaware
Flourish Financial LLC	None		Delaware
Flourish Technologies LLC	None		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MML Private Placement Investment Company I, LLC	04-1590850		Delaware
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
Pioneers Gate LLC	45-2738137		Delaware
MassMutual Holding LLC	04-2854319		Delaware
Fern Street LLC	37-1732913		Delaware
Low Carbon Energy Holding	None		United Kingdom
Sleeper Street LLC	None		Delaware
Haven Life Insurance Agency, LLC	46-2252944		Delaware
GASL Holdings LLC	None		Delaware
Barings Asset-Based Income Fund (US) LP*	None		Delaware
Barings Perpetual European Direct Lending Fund	None		Luxembourg
Barings Emerging Generation Fund II	88-0916548		Delaware
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		Delaware
Barings Global Real Assets Fund LP*	82-3867745		Delaware
Barings Global Special Situations Credit Fund 3	None		Luxembourg
MassMutual Assignment Company	06-1597528		North Carolina
MassMutual Capital Partners LLC	04-1590850		Delaware
Marco Hotel LLC	46-4255307		Delaware
HB Naples Golf Owner LLC	45-3623262		Delaware
RB Apartments LLC	82-4411267		Delaware
Intermodal Holding II LLC	None		Delaware
MassMutual Ventures Holding LLC	None		Delaware
Crane Venture Partners LLP	None		United Kingdom
MassMutual Ventures Management LLC	None		Delaware
MassMutual Ventures SEA Management Private Limited	None		Singapore
MMV UK/SEA Limited	None		England & Wales
MassMutual Ventures India Private Limited	None		India
MassMutual Ventures Southeast Asia I LLC	None		Delaware
MassMutual Ventures Southeast Asia II LLC	None		Delaware
MassMutual Ventures UK LLC	None		Delaware
MassMutual Ventures US I LLC	47-1296410		Delaware

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	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MassMutual Ventures US II LLC	None		Delaware
MassMutual Ventures US III LLC	None		Delaware
MM Catalyst Fund LLC	None		Delaware
MM Catalyst Fund II LLC	None		Delaware
MM Rothesay Holdco US LLC	04-1590850		Delaware
Rothesay Limited	None		United Kingdom
Rothesay Mortgages Limited	None		United Kingdom
Rothesay Life Plc	None		United Kingdom
Rothesay MA No.1 Limited	None		United Kingdom
Rothesay MA No.3 Limited	None		United Kingdom
Rothesay MA No.4 Limited	None		United Kingdom
LT Mortgage Financing Limited	None		United Kingdom
Rothesay Property Partnership 1 LLP	None		United Kingdom
Rothesay Foundation	None		United Kingdom
Rothesay Pensions Management Limited	None		United Kingdom
Rothesay Asset Management UK Limited	None		United Kingdom
Rothesay Asset Management Australia Pty Ltd	None		Australia
Rothesay Asset Management North America LLC	None		Delaware
MML Investors Services, LLC	04-1590850		Massachusetts
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
LifeScore Labs, LLC	47-1466022		Massachusetts
MM Asset Management Holding LLC	45-4000072		Delaware
Barings LLC	51-0504477		Delaware
Baring Asset Management (Asia) Holdings Limited	98-0524271		Hong Kong, Special Administrative Region of China
Baring International Fund Managers (Bermuda) Limited	98-0457465		Bermuda
Baring Asset Management (Asia) Limited	98-0457463		Hong Kong, Special Administrative Region of China
Baring Asset Management Korea Limited	None		Korea
Barings Investment Management (Shanghai) Limited	None		Hong Kong, Special Administrative Region of China
Barings Overseas Investment Fund Management (Shanghai) Limited	None		Hong Kong, Special Administrative Region of China
Baring SICE (Taiwan) Limited	98-0457707		Taiwan ROC
Barings Singapore Pte. Ltd.	None		Singapore
Barings Japan Limited	98-0236449		Japan
Barings Australia Holding Company Pty Ltd	None		Australia
Barings Australia Pty Ltd	None		Australia
Barings Australia Real Estate Holdings Pty Ltd	None		Australia
Barings Australia Real Estate Pty Ltd	14-0045656		Australia
Barings Australia Property Partners Holdings Pty Ltd	98-0457456		Australia
Barings Australia Asset Management Pty Ltd	None		Australia
Barings Australia Property Partners Pty Ltd	None		Australia
Barings Australia Structured Finance Holdings Pty Ltd	None		Australia
Barings Australia Structured Finance Pty Ltd	None		Australia
Gryphon Capital Partners Pty Ltd	None		Australia

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	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Gryphon Capital Management Pty Ltd	None		Australia
Gryphon Capital Investments Pty Ltd	None		Australia
Barings Finance LLC	80-0875475		Delaware
BCF Europe Funding Limited	None		Ireland
BCF Senior Funding I LLC`	None		Delaware
BCF Senior Funding I Designated Activity Company	None		Ireland
Barings Real Estate Acquisitions LLC	None		Delaware
Barings Securities LLC	04-3238351		Delaware
Barings Guernsey Limited	98-0437588		Guernsey
Barings Europe Limited	None		United Kingdom
Barings Asset Management Spain SL	None		Spain
Baring France SAS	None		France
Baring International Fund Managers (Ireland) Limited	None		Ireland
Barings GmbH	None		Germany
Barings Italy S.r.l.	None		Italy
Barings Sweden AB	None		Sweden
Barings Netherlands B.V.	None		Netherlands
Barings (U.K.) Limited	98-0432153		United Kingdom
Barings Switzerland Sàrl	None		Switzerland
Baring Asset Management Limited	98-0241935		United Kingdom
Barings European Direct Lending 1 GP LLP	None		United Kingdom
Baring International Investment Limited	98-0457328		United Kingdom
Baring Fund Managers Limited	98-0457586		United Kingdom
BCGSS 2 GP LLP	None		United Kingdom
Baring Investment Services Limited	98-0457578		United Kingdom
Barings Core Fund Feeder I GP S.à.r.l.	None		Luxembourg
Barings Investment Fund (LUX) GP S.à r.l.	None		Luxembourg
Barings BME GP S.à.r.l.	None		United Kingdom
Barings GPC GP S.à.r.l.	None		Luxembourg
Barings European Core Property Fund GP Sà.r.l	None		United Kingdom
Barings Umbrella Fund (LUX) GP S.à.r.l.	None		Luxembourg
GPLF4(S) GP S.à r. l	None		Luxembourg
PREIF Holdings Limited Partnership	None		United Kingdom
BMC Holdings DE LLC	None		Delaware
Barings Real Estate Advisers Inc.	04-3238351		Delaware
Remington L & W Holdings LLC	81-4065378		Delaware
Aland Royalty GP, LLC	None		Delaware
Alaska Future Fund GP, LLC	None		Delaware
BAI Funds SLP, LLC	None		Delaware
BAI GP, LLC	None		Delaware
Baring Asset-Based Income Fund (US) GP, LLC	None		Delaware
Barings CMS Fund GP, LLC	None		Delaware
Barings Infiniti Fund Management LLC	None		Delaware

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PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Barings New Jersey Emerging Manager Program GP, LLC	None		Delaware
Barings Hotel Opportunity Venture I GP, LLC	None		Delaware
Baring Investment Series LLC	None		Delaware
Barings Emerging Generation Fund GP, LLC	None		Delaware
Barings Emerging Generation Fund GP II, LLC	None		Delaware
Barings EPLF4 Rated Feeder, L.P.	None		Delaware
Barings ERS PE Emerging Manager III GP, LLC	None		Delaware
Barings FC III LLC	None		Delaware
Barings Global Investment Funds (U.S.) Management LLC	04-1590850		Delaware
Barings CLO Investment Partners GP, LLC	None		Delaware
Barings Core Property Fund GP LLC	None		Delaware
Barings DAPPLF1 Rated Feeder, G.P.	None		Delaware
Barings DAPPLF1 Rated Feeder, L.P.	None		Delaware
Barings Direct Lending GP Ltd.	None		Cayman Islands
Barings Diversified Residential Fund GP LLC	None		Delaware
Barings Diversified Residential Fund LP	None		Delaware
Barings Global Energy Infrastructure Advisors, LLC	None		Delaware
Barings Capital Solutions Perpetual Fund GP LLC	None		Delaware
Barings Centre Street CLO Equity Partnership GP, LLC	None		Delaware
Barings Centre Street CLO Equity Partnership LP	None		Delaware
Barings Global Real Assets Fund GP, LLC	None		Delaware
Barings GPSF LLC	None		Delaware
Barings North American Private Loan Fund Management, LLC	None		Delaware
Barings North American Private Loan Fund II Management, LLC	None		Delaware
Barings North American Private Loan Fund III Management, LLC	None		Delaware
Barings Global Special Situations Credit Fund 4 GP (Delaware) LLC	None		Delaware
Barings - MM Revolver Fund GP LLC	None		Delaware
Barings Real Estate European Value Add Fund II Feeder LLC	None		Cayman Islands
Barings SEM GP LLC	None		Delaware
BMT RE Debt Fund GP LLC	None		Delaware
Barings Small Business Fund LLC	84-5063008		Delaware
Barings TYIDF2 Rated Feeder GP LLC	None		Delaware
Barings TYIDF2 Rated Feeder, L.P.	None		Delaware
Barings Active Passive Equity Direct EAFE LLC	None		Delaware
BCLF GP LLC	None		Delaware
Benton Street Advisors, Inc.	98-0536233		Cayman Islands
BHOVI Incentive LLC	None		Delaware
BIG Real Estate Fund GP LLC	None		Delaware
BIG Real Estate Incentive I LLC	None		Delaware
BIG Real Estate Incentive II LLC	None		Delaware
BRECS VII GP LLC	None		Delaware
BREDIF GP LLC	None		Delaware
CPF Springing Member, LLC	None		Delaware

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PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
CREA-MA Reorganization Trust	None		Delaware
CREF X GP LLC	None		Delaware
Great Lakes III GP, LLC	04-1590850		Delaware
Lake Jackson LLC	None		Delaware
Barings Emerging Markets Blended Fund I GP, LLC	None		Delaware
Barings EPLF4 Rated Feeder GP LLC	None		Delaware
Mezzco III LLC	41-2280126		Delaware
Mezzco IV LLC	80-0920285		Delaware
Mezzco Australia II LLC	None		Delaware
RECSA-NY GP LLC	None		Delaware
Barings CLO 2022-I	98-1624360		Cayman Island
Barings CLO 2022-II	None		Cayman Island
Amherst Long Term Holdings, LLC	None		Delaware
Enroll Confidently, Inc.	None		Delaware
MassMutual International LLC	04-3313782		Delaware
MassMutual Solutions LLC	None		Delaware
Haven Technologies Asia Limited	None		Hong Kong
Yunfeng Financial Group Limited	None		Hong Kong
MassMutual External Benefits Group LLC	27-3576835		Delaware
5301 Wisconsin Avenue Associates, LLC	None		District of Columbia
5301 Wisconsin Avenue GP, LLC	None		Delaware
Other Affiliates & Funds:			
100 w. 3rd Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	82-2432216		Delaware
300 South Tryon LLC	04-1590850		Delaware
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Barings Affordable Housing Mortgage Fund I LLC	82-3468147		Delaware
Barings Affordable Housing Mortgage Fund II LLC	61-1902329		Delaware
Barings Affordable Housing Mortgage Fund III LLC	85-3036663		Delaware
Barings Construction Lending Fund LP	None		Delaware
Barings Emerging Generation Fund II LP	None		Delaware
Barings Emerging Generation Fund, LP	84-3784245		Delaware
Barings Emerging Markets Corporate Bond Fund	None		Ireland
Barings Hotel Opportunity Venture I LP	None		Delaware
Barings Miller Investment Trust	04-1590850		Australia
Barings Real Estate Debt Income Fund LP	85-3449260		Delaware
Barings Real Estate European Value Add I SCSp	None		Luxembourg
Barings Small Business Fund, L.P.	None		Delaware
Barings-MM Revolver Fund LP*	None		Delaware
Barings U.S. High Yield Fund	None		Delaware
Beauty Brands Acquisition LLC	None		Delaware
Beauty Brands Acquisition Intermediate LLC	None		Delaware
Forma Brands, LLC	None		Delaware

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PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Cornerstone Permanent Mortgage Fund LLC	45-2632610		Massachusetts
CREA Ridge Apartments, LLC	None		Delaware
Euro Real Estate Holdings Herleshausen LLC	None		Delaware
London Office JV Holdings LLC	None		Delaware
Riverwalk MM Member, LLC	None		Delaware
Aland Royalty Holdings LP	None		Delaware
Chassis Acquisition Holding LLC	81-2244465		Delaware
CRA Aircraft Holding LLC	81-4258759		Delaware
EIP Holdings I, LLC	None		Delaware
Red Lake Ventures, LLC	46-5460309		Delaware
Validus Holding Company LLC	46-0687392		Delaware
SBNP SIA II LLC	04-1590850		Delaware
SBNP SIA III LLC	None		Delaware
Barings European Real Estate Debt Income Fund	None		Luxembourg
Babson Capital Loan Strategies Fund, L.P.*	37-1506417		Delaware
Barings US High Yield Bond Fund	None		Ireland
Babson CLO Ltd. 2015-I	None		Cayman Islands
Babson CLO Ltd. 2015-II	None		Cayman Islands
Babson CLO Ltd. 2016-I	None		Cayman Islands
Babson CLO Ltd. 2016-II	None		Cayman Islands
Barings CLO Ltd. 2017-I	None		Cayman Islands
Barings CLO 2018-III	None		Cayman Islands
Barings CLO 2018-IV	None		Cayman Islands
Barings CLO 2019-II	98-1473665		Cayman Islands
Barings CLO 2019-III	None		Cayman Islands
Barings CLO 2019-IV	None		Cayman Islands
Barings CLO 2020-I	None		Cayman Islands
Barings CLO 2020-II	None		Cayman Islands
Barings CLO 2020-III	None		Cayman Islands
Barings CLO 2020-IV	None		Cayman Islands
Barings CLO 2021-I	None		Cayman Islands
Barings CLO 2021-II	None		Cayman Islands
Barings CLO 2021-III	None		Cayman Islands
Babson Euro CLO 2014-I BV	None		Netherlands
Babson Euro CLO 2014-II BV	None		Netherlands
Babson Euro CLO 2015-I BV	None		Netherlands
Barings Euro CLO 2019-I	3603726OH		Ireland
Barings Euro CLO 2019-II	None		Ireland
Barings Euro CLO 2020-I DAC	None		Ireland
Barings Euro CLO 2021-I DAC	3715576VH		Ireland
Barings Euro CLO 2021-II DAC	3750378QH		Ireland
Barings Euro CLO 2021-III DAC	None		Ireland

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	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Barings Euro CLO 2023-II DAC	None		Ireland
Barings Global Energy Infrastructure Fund I LP	98-1332384		Cayman Islands
Barings Global Special Situations Credit 4 Delaware*	85-1465973		Delaware
Barings Global Special Situations Credit 4 LUX*	98-1570693		Luxembourg
Barings Europe Select Fund	None		Ireland
Barings Hotel Opportunity Venture	87-0977058		Connecticut
Barings Innovations & Growth Real Estate Fund*	86-3661023		Delaware
Barings Middle Market CLO 2017-I Ltd & LLC	None		Cayman Islands
Barings Middle Market CLO 2018-I	None		Cayman Islands
Barings Middle Market CLO 2019-I	None		Cayman Islands
Barings Middle Market CLO Ltd 2021-I	98-1612604		Cayman Islands
Barings Middle Market CLO Ltd 2023-I	None		Bermuda
Barings Middle Market CLO Ltd 2023-II	None		Bermuda
Barings RE Credit Strategies VII LP	98-1332384		Delaware
Barings Target Yield Infrastructure Debt Fund	98-1567942		Luxembourg
Barings CLO Investment Partners LP	81-0841854		Delaware
Barings Euro Value Add II (BREEVA II)*	None		Luxembourg
Barings Transportation Fund LP*	87-1262754		Delaware
Braemar Energy Ventures I, L.P.*	None		Delaware
Barings European Core Property Fund SCSp*	None		Luxembourg
Barings European Private Loan Fund III A	46-5001122		Luxembourg
Benchmark 2018-B2 Mortgage Trust	38-4059932		New York
Benchmark 2018-B4	None		New York
Benchmark 2018-B8	38-4096530		New York
Barings Core Property Fund LP	20-5578089		Delaware
DPI Acres Capital SPV LLC	04-1590850		Delaware
DPI-ARES Mortgage Lending SPV, LLC	04-1590850		Delaware
E2E Affordable Housing Debt Fund LLC	None		Delaware
Great Lakes III, L.P.	37-1708623		Delaware
GIA EU Holdings - Emerson JV Sarl	98-1607033		Luxembourg
JPMCC Commercial Mortgage Securities Trust 2017-JP7	38-4041011; 38-4041012		New York
JPMDB Commercial Mortgage Securities Trust 2017-C5	38-4032059		New York
Martello Re Feeder LP	None		Delaware
Martello Re LP	None		Delaware
Martello Re Holding Limited LLC	None		Delaware
Martello Re Limited	None		Bermuda
Martello Re Services Company	None		Delaware
Miami Douglas Three MM, LLC	04-1590850		Delaware
MM BIG Peninsula Co-Invest Member LLC*	87-4021641		Delaware
MM Direct Private Investment Holding	04-1590850		Delaware
MM CM Holding LLC	None		Delaware
MM Debt Participations LLC	81-3000420		Delaware
MM MD1 Station Member LLC*	04-1590850		Delaware

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	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MM MD2 Station Member LLC*	04-1590850		Delaware
MMV Climate Technology Fund GP*	04-1590850		Delaware
MM REED District Landco Member LLC	None		Delaware
MM Subline Borrower LLC	04-1590850		Delaware
Washington Pine LLC	04-1590850		Delaware
Ten Fan Pier Boulevard LLC	35-2553915		Delaware
Tower Square Capital Partners III, L.P.	41-2280127		Delaware
Tower Square Capital Partners IIIA, L.P.	41-2280129		Delaware
Trailside MM Member LLC*	04-1590850		Delaware
Washington Gateway Three LLC	32-0574045		Delaware
Washington Gateway Two LLC*	83-1325764		Delaware
MALIC Debt Participations LLC	None		Delaware
Barings Affiliates & Funds:			
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands
Barings China Aggregate Bond Private Securities Investment Fund	None		Peoples Republic of China
Barings Global High Yield Fund	47-3790192		Massachusetts
Great Lakes II LLC*	71-1018134		Delaware
Wood Creek Venture Fund LLC	04-1590850		Delaware
Barings Real Estate Affiliates & Funds:			
Barings California Mortgage Fund IV	None		California
Barings Umbrella Fund LUX SCSp SICAV RAIF*	None		Luxembourg
Calgary Railway Holding LLC	82-2285211		Delaware
Cornbrook PRS Holdings LLC	82-3307907		Delaware
Cornerstone California Mortgage Fund I LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC	95-4207717		California
Cornerstone California Mortgage Fund III LLC	95-4207717		California
Cornerstone Fort Pierce Development, LLC*	56-2630592		Delaware
Cornerstone Permanent Mortgage Fund II LLC	61-1750537		Massachusetts
Cornerstone Permanent Mortgage Fund III LLC	35-2531693		Massachusetts
Cornerstone Permanent Mortgage Fund IV LLC	61-1793735		Massachusetts
CREA/PPC Venture, LLC	20-0348173		Delaware
Danville Riverwalk Venture, LLC	82-2783393		Delaware
Euro Real Estate Holdings LLC	04-1590850		Delaware
Fan Pier Development LLC*	20-3347091		Delaware
GIA EU Holdings LLC - Avalon Spain	04-1590850		Delaware
GIA EU Holdings LLC	04-1590850		Delaware
Landmark Manchester Holdings LLC	81-5360103		Delaware
MMLIC Debt Participations LLC	13-1935920		Delaware
MM Brookhaven Member LLC	04-1590850		Delaware
MM Ascend Mtg. Lending LLC	04-1590850		Delaware
MM Kannapolis Industrial Member LLC*	04-1590850		Delaware
MM East South Crossing Member LLC	04-1590850		Delaware
MM Horizon Savannah Member LLC*	04-1590850		Delaware

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	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MM Horizon Savannah Member II LLC*	04-1590850		Delaware
MM National Self-Storage Program Member LLC	04-1590850		Delaware
MM 1400 E 4th Street Member LLC	04-1590850		Delaware
MM 1370 AVE OF AM LLC	04-1590850		Delaware
One Harbor Shore LLC*	80-0948028		Delaware
Paco France Logistics LLC	04-1590850		Delaware
Salomon Brothers Commercial Mortgage Trust 2001-MM	None		Delaware
Three PW Office Holding LLC	81-5273574		Delaware
Trailside MM Member II LLC	04-1590850		Delaware
Unna, Dortmund Holding LLC	82-3250684		Delaware
Washington Gateway Apartments Venture LLC*	45-5401109		Delaware
West 37th Street Hotel LLC*	88-3861481		Delaware
MassMutual Premier Funds:			
MassMutual Premier Main Street Fund	51-0529328		Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251		Massachusetts
MassMutual Select Funds:			
MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MassMutual Select T. Rowe Price Retirement 2005 Fund	82-3347422		Massachusetts
MassMutual Select T. Rowe Price Retirement 2010 Fund	82-3355639		Massachusetts
MassMutual Select T. Rowe Price Retirement 2015 Fund	82-3382389		Massachusetts
MassMutual Select T. Rowe Price Retirement 2020 Fund	82-3396442		Massachusetts
MassMutual Select T. Rowe Price Retirement 2025 Fund	82-3417420		Massachusetts
MassMutual Select T. Rowe Price Retirement 2030 Fund	82-3430358		Massachusetts
MassMutual Select T. Rowe Price Retirement 2035 Fund	82-3439837		Massachusetts
MassMutual Select T. Rowe Price Retirement 2040 Fund	82-3451779		Massachusetts
MassMutual Select T. Rowe Price Retirement 2045 Fund	82-3472295		Massachusetts
MassMutual Select T. Rowe Price Retirement 2050 Fund	82-3481715		Massachusetts
MassMutual Select T. Rowe Price Retirement 2055 Fund	82-3502011		Massachusetts
MassMutual Select T. Rowe Price Retirement 2060 Fund	82-3525148		Massachusetts
MassMutual Select T. Rowe Price Retirement Balanced Fund	82-3533944		Massachusetts
MML Series Investment Funds:			
MML Series International Equity Fund	46-4257056		Massachusetts
MML Series Investment Funds II:			
MML Series II Dynamic Bond Fund	47-3529636		Massachusetts
MML Series II Equity Rotation Fund	47-3544629		Massachusetts
MassMutual RetireSMART Funds:			
MassMutual RetireSMART 2035 Fund	27-1933380		Massachusetts
MassMutual RetireSMART 2045 Fund	27-1932769		Massachusetts
MassMutual RetireSMART 2055 Fund	46-3289207		Massachusetts
MassMutual RetireSMART 2060 Fund	47-5326235		Massachusetts
MassMutual 20/80 Allocation Fund	45-1618155		Massachusetts

*This entity is owned by another or multiple entities in the group. Please refer to Sch Y Part 1A for the ownership and percentage information.

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MassMutual 80/20 Allocation Fund	45-1618222		Massachusetts
MassMutual RetireSMART In Retirement Fund	03-0532464		Massachusetts
MassMutual 40/60 Allocation Fund	45-1618262		Massachusetts
MassMutual 60/40 Allocation Fund	45-1618046		Massachusetts
MassMutual ishares 60/40 Allocation Fund	45-1618046		Massachusetts
MassMutual Balanced Fund	04-3212054		Massachusetts
MassMutual Blue Chip Growth Fund	04-3556992		Massachusetts
MassMutual Core Bond Fund	04-3277549		Massachusetts
MassMutual Disciplined Growth Fund	04-3539084		Massachusetts
MassMutual Disciplined Value Fund	04-3539083		Massachusetts
MassMutual Diversified Value Fund	01-0821120		Massachusetts
MassMutual Equity Opportunities Fund	04-3512590		Massachusetts
MassMutual Growth Opportunities Fund	04-3512589		Massachusetts
MassMutual Inflation-Protected and Income Fund	03-0532475		Massachusetts
MassMutual Mid Cap Growth Fund	04-3512596		Massachusetts
MassMutual Premier Diversified Bond Fund	04-3464165		Massachusetts
MassMutual RetireSMART by JPMorgan 2065 Fund	92-1441036		Massachusetts
MassMutual Select 80/20 Allocation Fund	45-1618222		Massachusetts
MassMutual Select Fundamental Value Fund	04-3584138		Massachusetts
MassMutual Select Overseas Fund	04-3557000		Massachusetts
MassMutual Select T Rowe Price Retirement 2065 Fund	92-1427882		Massachusetts
MassMutual Small Cap Growth Equity Fund	04-3464205		Massachusetts
MassMutual Small Cap Opportunities Fund	04-3424705		Massachusetts
MassMutual Small Cap Value Equity Fund	02-0769954		Massachusetts
MassMutual Strategic Bond Fund	26-0099965		Massachusetts
MassMutual Clinton Municipal Credit Opportunities Fund	93-4168848		Massachusetts
MassMutual Clinton Municipal Fund	93-4190918		Massachusetts
MassMutual Clinton Short-Term Municipal Fund	93-4193313		Massachusetts

12.13

*This entity is owned by another or multiple entities in the group. Please refer to Sch Y Part 1A for the ownership and percentage information.

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0435	Massachusetts Mut Life Ins Co	65935	04-1590850	3848388			Massachusetts Mutual Life Insurance Company (MMLIC)	MA	RE	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	Massachusetts Mut Life Ins Co	93432	06-1041383				C.M. Life Insurance Company	CT	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	Massachusetts Mut Life Ins Co	70416	43-0581430				MML Bay State Life Insurance Company	CT	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CM Life Mortgage Lending LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CML Mezzanine Investor III, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CML Global Capabilities LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities I LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual Global Business Services India LLP	IND	DS	MM Global Capabilities I LLC	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities (Netherlands) B.V.	NLD	DS	MM Global Capabilities I LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Global Business Services Romania S.R.L.	ROU	DS	MM Global Capabilities (Netherlands) B.V.	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities II LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities III LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM/Barings Multifamily TEBS 2020 LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Berkshire Way LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MML Special Situations Investor LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	C.M. Life Insurance Company	Influence		MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Wood Creek Capital Management LLC	Management		MMLIC		
.0000							Lyme Adirondack Forest Company, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timberlands I, LLC	DE	DS	Lyme Adirondack Forest Company, LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timberlands II, LLC	DE	DS	Lyme Adirondack Forest Company, LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timber Sales, LLC	DE	DS	Lyme Adirondack Forest Company, LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MSP-SC, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Insurance Road LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Trad Private Equity LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Intellectual Property LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
.0000							Trad Investments I LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
.0000							ITPSHolding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							HITPS LLC	DE	NIA	ITPS Holding LLC	Ownership	100.000	MMLIC		
.0000							EM Opportunities LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual MCAM Insurance Company, Inc.	VT	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures US IV GP, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MMLIC		
.0000							MassMutual Ventures US IV GP, LLC	DE	NIA	Massachusetts Mutual Ascend	Ownership	1.000	MMLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000							MassMutual Ventures US IV, L.P.	DE	NIA	MassMutual Ventures US IV GP, LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures US IV LLC	DE	DS	MassMutual Ventures US IV, L.P.	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Europe/APAC I GP, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Europe/APAC I GP, L.P.	CYM	DS	MassMutual Ventures Europe/APAC I GP, LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Europe/APAC I L.P.	CYM	DS	MassMutual Ventures Europe/APAC I GP, L.P.	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Southeast Asia III LLC	DE	DS	MassMutual Ventures Europe/APAC I L.P.	Ownership	100.000	MMLIC		
.0000							MMV Digital I LLC	CYM	DS	MassMutual Ventures Southeast Asia III LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Sustainable Advisors LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CSA Intermediate Holdco LLC	DE	DS	Counterpointe Sustainable Advisors LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Trust Services LLC	DE	DS	CSA Intermediate Holdco LLC	Ownership	100.000	MMLIC		
.0000							CP PACE LLC	DE	DS	CSA Intermediate Holdco LLC	Ownership	100.000	MMLIC		
.0000							CSA Employee Services Company LLC	DE	DS	CSA Intermediate Holdco LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Sustainable Real Estate II LLC	DE	DS	CSA Intermediate Holdco LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Energy Solutions II LLC	DE	DS	CSA Intermediate Holdco LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Energy Solutions (CA) II LLC	DE	DS	Counterpointe Energy Solutions II LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Energy Solutions (FL) II LLC	DE	DS	Counterpointe Energy Solutions II LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Energy Solutions (IL) LLC	DE	DS	Counterpointe Energy Solutions II LLC	Ownership	100.000	MMLIC		
.0000							Loop-Counterpointe PACE LLC	DE	DS	Counterpointe Energy Solutions (IL) LLC	Ownership	100.000	MMLIC		
.0000							Counterpointe Energy Services LLC	DE	DS	CSA Intermediate Holdco LLC	Ownership	100.000	MMLIC		
.0000							JFIN Parent LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			27-0105644				Jefferies Finance LLC	DE	NIA	JFIN Parent LLC	Ownership	50.000	MMLIC		1
.0000							JFIN GP Adviser LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies MM Lending LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Green SPE LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Apex Credit Partners LLC	DE	NIA	Green SPE LLC	Ownership	100.000	MMLIC		
.0000							Apex GP I LLC	DE	NIA	Apex Credit Partners LLC	Ownership	100.000	MMLIC		
.0000							Apex Securitized Income Fund LP	DE	NIA	Apex GP I LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Credit Partners LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Credit Management LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MMLIC		
.0000							JCM GP I LLC	DE	NIA	Jefferies Credit Management LLC	Ownership	100.000	MMLIC		
.0000							JCM H-2 Credit Fund GP LLC	DE	NIA	Jefferies Credit Management LLC	Ownership	100.000	MMLIC		
.0000							JCP Direct Lending CLO 2022 LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	9.900	MMLIC		
.0000							Jefferies Direct Lending Europe SCSp SICAV-RAIF	LUX	NIA	Jefferies Credit Partners LLC	Ownership	9.900	MMLIC		
.0000							Jefferies Credit Management Holdings LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	9.900	MMLIC		
.0000							JDLF GP (Europe) S.a.r.l	LUX	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MMLIC		
.0000							JFAM GP LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MMLIC		
.0000							JFAM GP LP	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund C LP	DE	NIA	JFAM GP LP	Ownership	100.000	MMLIC		
.0000							Jefferies DLF C Holdings LLC	DE	NIA	Jefferies Direct Lending Fund C LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund C SPE LLC	DE	NIA	Jefferies DLF C Holdings LLC	Ownership	100.000	MMLIC		
.0000							JDLF II GP LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MMLIC		
.0000							JDLF II GP LP	DE	NIA	JDLF II GP LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund II C LP	DE	NIA	JDLF II GP LP	Ownership	100.000	MMLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000							Jefferies DLF 2 C Holdings LLC	DE	NIA	Jefferies Direct Lending Fund II C LP	Ownership	100.000	MLLIC		
.0000							Jefferies Direct Lending Fund II C SPE LLC	DE	NIA	Jefferies DLF 2 C Holdings LLC	Ownership	100.000	MLLIC		
.0000							JDLF III GP LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MLLIC		
.0000							JDLF III GP LP	DE	NIA	JDLF III GP LP	Ownership	100.000	MLLIC		
.0000							Jefferies Direct Lending Fund III C LP	DE	NIA	JDLF III GP LP	Ownership	100.000	MLLIC		
.0000							JCP Direct Lending CLO 2023-1 LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MLLIC		
.0000							JCP Direct Lending CLO 2023 Ltd.	JEY	NIA	JCP Direct Lending CLO 2023 Ltd.	Ownership	100.000	MLLIC		
.0000							JCP GP I LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MLLIC		
.0000							Jefferies M Super Private Credit Fund GP LLC	DE	NIA	Jefferies Credit Partners LLC	Ownership	100.000	MLLIC		
.0000							Jefferies Private Credit BDC Inc.	MD	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JCP Funding 2024 LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							Jefferies Senior Lending LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver Holdings II LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Co-Issuer Corporation	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Europe GP, S.a.r.l.	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							Jefferies Finance Europe, S.L.P.	LUX	NIA	JFIN Europe GP, S.a.r.l.	Ownership	100.000	MLLIC		
.0000							Jefferies Finance Europe, SCSp	LUX	NIA	JFIN Europe GP, S.a.r.l.	Ownership	100.000	MLLIC		
.0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Business Credit Fund I LLC	DE	NIA	Jefferies Finance Business Credit LLC	Ownership	100.000	MLLIC		
.0000							JFIN Funding 2021 LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN LC Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2017 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2017-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2017-III Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2018 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2019 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2019-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2020 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2021-I Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2021-V Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2022-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2022-III Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2022-IV Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2024-I Ltd.	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver CLO 2022-IV LLC	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver Fund, L.P.	DE	NIA	Jefferies Finance LLC	Ownership	90.000	MLLIC		
.0000							JFIN Revolver Funding 2021 Ltd.	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver Funding 2021 III Ltd.	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver Funding 2021 IV Ltd.	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver Funding 2022-I Ltd.	BMU	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver SPE1 2022 LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver SPE3 2022 LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver SPE4 2022 LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JFIN Revolver SPE4 2022 Ltd.	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JCP Private Loan Management GP LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLLIC		
.0000							JCP Private Loan Management LP	DE	NIA	JCP Private Loan Management GP LLC	Ownership	100.000	MLLIC		
.0000							Apex Credit Holdings LLC	DE	NIA	JFIN Parent LLC	Ownership	100.000	MLLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000							JFIN CLO 2012 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2013 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2014 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2014-II Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2015 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2015-II Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	85.000	MLLIC		
.0000							JFIN CLO 2016 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2017 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							JFIN CLO 2017-II Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MLLIC		
.0000							Tomorrow Parent, LLC	.DE	NIA	JFIN Parent LLC	Ownership	100.000	MLLIC		
.0000							Custom Ecology Holdco, LLC	.DE	NIA	JFIN Parent LLC	Ownership	100.000	MLLIC		
.0000			86-2294635				Glidepath Holdings Inc.	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0435	Massachusetts Mut Life Ins Co	63312	13-1935920				MassMutual Ascend Life Insurance Company	.OH	DS	Glidepath Holdings Inc.	Ownership	100.000	MLLIC		
.0000			31-1422717				AAG Insurance Agency, LLC	.KY	DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MLLIC		
.0435	Massachusetts Mut Life Ins Co	93661	31-1021738				Annuity Investors Life Insurance Company	.OH	DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MLLIC		
.0000			31-1395344				MM Ascend Life Investor Services, LLC	.OH	DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MLLIC		
.0000			31-1395344				MM Ascend Mortgage Lending LLC	.OH	DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MLLIC		
.0000			26-3260520				Manhattan National Holding, LLC	.OH	DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MLLIC		
.0435	Massachusetts Mut Life Ins Co	67083	45-0252531				Manhattan National Life Insurance Company	.OH	DS	Manhattan National Holding LLC	Ownership	100.000	MLLIC		
.0000							MassMutual Mortgage Lending LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-1590850				MM Copper Hill Road LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							MMV CTF I GP LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures Climate Technology Fund I LP	.DE	DS	MMV CTF I GP LLC	Ownership	100.000	MLLIC		
.0000							MM Direct Private Investments Holding LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							MM Direct Private Investments UK Limited	.GBR	DS	MM Direct Private Investments Holding LLC	Ownership	100.000	MLLIC		
.0000							DPI-ACRES Capital LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							DPI-ARES Mortgage Lending LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							MM Investment Holding	.CYM	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							MMIH Bond Holdings LLC	.DE	DS	MM Investment Holding	Ownership	99.610	MLLIC		
.0000			26-0073611				MassMutual Asset Finance LLC	.DE	DS	C.M. Life Insurance Company	Ownership	0.400	MLLIC		
.0000			26-0073611				MassMutual Asset Finance LLC	.DE	DS	MM Investment Holding	Ownership	99.600	MLLIC		
.0000			32-0546197				MMAF Equipment Finance LLC 2017-B	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000			83-3722640				MMAF Equipment Finance LLC 2019-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2019-B	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2020-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2020-B	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2021-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2022-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2022-B	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2023-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		
.0000							MMAF Equipment Finance LLC 2024-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MLLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000			04-2443240				MML Management Corporation	..MA	..DS	MM Investment Holding	Ownership	100.000	MMLIC		
.0000			04-3548444				MassMutual International Holding MSC, Inc.	..MA	..DS	MML Management Corporation	Ownership	100.000	MMLIC		
.0000			04-3341767				MassMutual Holding MSC, Inc.	..MA	..DS	MML Management Corporation	Ownership	100.000	MMLIC		
.0000							Massachusetts Mutual Life Insurance Company								
.0000							MML CM LLC	..DE	..DS	Company	Ownership	100.000	MMLIC		
.0000							Blueprint Income LLC	..NY	..DS	MML CM LLC	Ownership	100.000	MMLIC		
.0000							Flourish Holding Company LLC	..DE	..DS	MML CM LLC	Ownership	100.000	MMLIC		
.0000							Flourish Insurance Agency LLC	..DE	..DS	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000							Flourish Digital Assets LLC	..DE	..DS	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000							Flourish Financial LLC	..DE	..DS	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000							Flourish Technologies LLC	..DE	..DS	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000			04-3356880				MML Distributors LLC	..MA	..DS	Company	Ownership	99.000	MMLIC		
.0000			04-3356880				MML Distributors LLC	..MA	..DS	MassMutual Holding LLC	Ownership	1.000	MMLIC		
.0000							Massachusetts Mutual Life Insurance Company								
.0000							MML Investment Advisers, LLC	..DE	..DS	Company	Ownership	100.000	MMLIC		
.0000			46-3238013				MML Strategic Distributors, LLC	..DE	..DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1563535	2881445			The MassMutual Trust Company, FSB	..CT	..DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Private Placement Investment Company I, LLC	..DE	..DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Private Equity Fund Investor LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Private Equity Fund Investor LLC	..DE	..NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			04-1590850				MM Private Equity Intercontinental LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			45-2738137				Pioneers Gate LLC	..DE	..DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-2854319	2392316			MassMutual Holding LLC	..DE	..DS	Company	Ownership	100.000	MMLIC		
.0000			37-1732913				Fern Street LLC	..DE	..DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							Low Carbon Energy Holding	..GBR	..DS	MassMutual Holding LLC	Ownership	49.000	MMLIC		
.0000							Sleeper Street LLC	..DE	..DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			46-2252944				Haven Life Insurance Agency, LLC	..DE	..DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			82-2932156				GASL Holdings LLC	..DE	..NIA	MassMutual Holding LLC	Ownership	11.300	MMLIC		
.0000			82-2932156				GASL Holdings LLC	..DE	..NIA	Barings LLC	Board		MMLIC		
.0000			36-4868350				Barings Asset-Based Income Fund (US) LP	..DE	..NIA	MassMutual Holding LLC	Ownership/Influence	11.400	MMLIC		
.0000			36-4868350				Barings Asset-Based Income Fund (US) LP	..DE	..NIA	C.M. Life Insurance Company	Ownership/Influence	1.160	MMLIC		
.0000			36-4868350				Barings Asset-Based Income Fund (US) LP	..DE	..NIA	Barings LLC	Management		MMLIC		
.0000							Barings Perpetual European Direct Lending Fund	..LUX	..NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	81.660	MMLIC		
.0000							Barings Perpetual European Direct Lending Fund	..LUX	..NIA	Barings LLC	Influence		MMLIC		
.0000			88-0916548				Barings Emerging Generation Fund II	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	62.550	MMLIC		
.0000			88-0916548				Barings Emerging Generation Fund II	..DE	..NIA	Barings LLC	Influence		MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	..DE	..NIA	MassMutual Holding LLC	Ownership/Influence	23.300	MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	..DE	..NIA	C.M. Life Insurance Company	Ownership	1.100	MMLIC		

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SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	DE	NIA	Barings LLC	Management		MMLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	37.410	MMLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	DE	NIA	C.M. Life Insurance Company	Ownership	6.700	MMLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Special Situations Credit Fund 3	LUX	NIA	MassMutual Holding LLC	Ownership/Influence	19.410	MMLIC		
.0000							Barings Global Special Situations Credit Fund 3	LUX	NIA	Barings LLC	Management		MMLIC		
.0000			06-1597528				MassMutual Assignment Company	NC	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Capital Partners LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			46-4255307				Marco Hotel LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			45-3623262				HB Naples Golf Owner LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			82-4411267				RB Apartments LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							Intermodal Holding II LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Holding LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							Crane Venture Partners LLP	GBR	DS	MassMutual Ventures Holding LLC	Ownership	33.000	MMLIC		
.0000							MassMutual Ventures Management LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures SEA Management Private Limited	DE	DS	MassMutual Ventures Management LLC	Ownership	100.000	MMLIC		
.0000							MMV UK/SEA Limited	GBR	DS	MassMutual Ventures SEA Management Private Limited	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures India Private Limited	IND	DS	MassMutual Ventures SEA Management Private Limited	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Southeast Asia I LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Southeast Asia II LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures UK LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000			47-1296410				MassMutual Ventures US I LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures US II LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures US III LLC	DE	DS	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
.0000							MM Catalyst Fund LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MM Catalyst Fund II LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Rothesay Holdco US LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							Rothesay Limited	GBR	DS	MM Rothesay Holdco US LLC	Ownership	48.800	MMLIC		
.0000							Rothesay Mortgages Limited	GBR	DS	Rothesay Limited	Ownership	100.000	MMLIC		
.0000							Rothesay Life Plc	GBR	DS	Rothesay Limited	Ownership	100.000	MMLIC		
.0000							Rothesay MA No.1 Limited	GBR	DS	Rothesay Life PLC	Ownership	100.000	MMLIC		
.0000							Rothesay MA No.3 Limited	GBR	DS	Rothesay Life PLC	Ownership	100.000	MMLIC		
.0000							Rothesay MA No.4 Limited	GBR	DS	Rothesay Life PLC	Ownership	100.000	MMLIC		
.0000							LT Mortgage Financing Limited	GBR	DS	Rothesay Life PLC	Ownership	100.000	MMLIC		
.0000							Rothesay Property Partnership 1 LLP	GBR	DS	Rothesay Life PLC	Ownership	100.000	MMLIC		
.0000							Rothesay Foundation	GBR	DS	Rothesay Limited	Ownership	100.000	MMLIC		
.0000							Rothesay Pensions Management Limited	GBR	DS	Rothesay Limited	Ownership	100.000	MMLIC		
.0000							Rothesay Asset Management UK Limited	GBR	DS	Rothesay Limited	Ownership	100.000	MMLIC		
.0000							Rothesay Asset Management Australia Pty Ltd	AUS	DS	Rothesay Asset Management UK Limited	Ownership	100.000	MMLIC		
.0000							Rothesay Asset Management North America LLC	DE	DS	Rothesay Asset Management UK Limited	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Investors Services, LLC	MA	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Insurance Agency, LLC	MA	DS	MML Investors Services, LLC	Ownership	100.000	MMLIC		
.0000			41-2011634				MMLISI Financial Alliances, LLC	DE	DS	MML Investors Services, LLC	Ownership	100.000	MMLIC		
.0000			47-1466022				LifeScore Labs, LLC	MA	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		

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SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			45-4000072				MM Asset Management Holding LLC	..MA	..DS	MassMutual Holding LLC	Ownership	100.000	MM.LIC		
.0000			51-0504477				Barings LLC	..MA	..DS	MassMutual Holding LLC	Ownership	100.000	MM.LIC		
.0000			98-0524271				Barings Asset Management (Asia) Holdings Limited	..HKG	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000			98-0457465				Barings International Fund Managers (Bermuda) Limited	..BMU	..DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MM.LIC		
.0000			98-0457463				Barings Asset Management (Asia) Limited	..HKG	..DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MM.LIC		
.0000							Barings Asset Management Korea Limited	..KOR	..DS	Barings Asset Management (Asia) Limited	Ownership	100.000	MM.LIC		
.0000							Barings Investment Management (Shanghai) Limited	..HKG	..DS	Barings Asset Management (Asia) Limited	Ownership	100.000	MM.LIC		
.0000							Barings Overseas Investment Fund Management (Shanghai) Limited	..HKG	..DS	Barings Investment Management (Shanghai) Limited	Ownership	100.000	MM.LIC		
.0000			98-0457707				Barings SICE (Taiwan) Limited	..TWN	..DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MM.LIC		
.0000							Barings Singapore Pte. Ltd.	..SGP	..DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MM.LIC		
.0000			98-0236449				Barings Japan Limited	..JPN	..DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MM.LIC		
.0000							Barings Australia Holding Company Pty Ltd	..AUS	..DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MM.LIC		
.0000							Barings Australia Pty Ltd	..AUS	..DS	Barings Australia Holding Company Pty Ltd	Ownership	100.000	MM.LIC		
.0000							Barings Australia Real Estate Holdings Pty Ltd	..AUS	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000			14-0045656				Barings Australia Real Estate Pty Ltd	..AUS	..DS	Barings Australia Real Estate Holdings Pty Ltd	Ownership	100.000	MM.LIC		
.0000			98-0457456				Barings Australia Property Partners Holdings Pty Ltd	..AUS	..DS	Barings Australia Real Estate Pty Ltd	Ownership	100.000	MM.LIC		
.0000							Barings Australia Asset Management Pty Ltd	..AUS	..DS	Barings Australia Property Partners Holdings Pty Ltd	Ownership	100.000	MM.LIC		
.0000							Barings Australia Property Partners Pty Ltd	..AUS	..DS	Barings Australia Property Partners Holdings Pty Ltd	Ownership	100.000	MM.LIC		
.0000							Barings Australia Structured Finance Holdings Pty Ltd	..AUS	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000							Barings Australia Structured Finance Pty Ltd	..AUS	..DS	Barings Australia Structured Finance Holdings Pty Ltd	Ownership	100.000	MM.LIC		
.0000							Gryphon Capital Partners Pty Ltd	..AUS	..DS	Ltd	Ownership	100.000	MM.LIC		
.0000							Gryphon Capital Management Pty Ltd	..AUS	..DS	Gryphon Capital Partners Pty Ltd	Ownership	100.000	MM.LIC		
.0000							Gryphon Capital Investments Pty Ltd	..AUS	..DS	Gryphon Capital Partners Pty Ltd	Ownership	100.000	MM.LIC		
.0000			80-0875475				Barings Finance LLC	..DE	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000							BCF Europe Funding Limited	..IRL	..DS	Barings Finance LLC	Ownership	100.000	MM.LIC		
.0000							BCF Senior Funding I LLC	..DE	..DS	Barings Finance LLC	Ownership	100.000	MM.LIC		
.0000							BCF Senior Funding I Designated Activity Company	..IRL	..DS	Barings Finance LLC	Ownership	100.000	MM.LIC		
.0000							Barings Real Estate Acquisitions LLC	..DE	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000			04-3238351				Barings Securities LLC	..DE	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000			98-0437588				Barings Guernsey Limited	..GGY	..DS	Barings LLC	Ownership	100.000	MM.LIC		
.0000							Barings Europe Limited	..GBR	..DS	Barings Guernsey Limited	Ownership	100.000	MM.LIC		
.0000							Barings Asset Management Spain SL	..ESP	..DS	Barings Europe Limited	Ownership	100.000	MM.LIC		
.0000							Barings France SAS	..FRA	..DS	Barings Europe Limited	Ownership	100.000	MM.LIC		

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SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000							Baring International Fund Managers (Ireland) Limited	.IRL	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings GmbH	.DEU	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Italy S.r.l.	.ITA	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Sweden AB	.SWE	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Netherlands B.V.	.NLD	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0432153				Barings (U.K.) Limited	.GBR	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Switzerland Sarl	.CHE	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0241935				Baring Asset Management Limited	.GBR	.DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings European Direct Lending 1 GP LLP	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457328				Baring International Investment Limited	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457586				Baring Fund Managers Limited	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							BCGSS 2 GP LLP	.GBR	.DS	Baring Fund Managers Limited	Ownership	100.000	MMLIC		
.0000			98-0457578				Baring Investment Services Limited	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Core Fund Feeder 1 GP S.a.r.l.	.LUX	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Investment Fund (LUX) GP S.a. r.l.	.LUX	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings BME GP S.a.r.l.	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings GPC GP S.a. r.l.	.LUX	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings European Core Property Fund GP Sarl	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Umbrella Fund (LUX) GP S.a.r.l.	.LUX	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							GPLF4(S) GP S.a. r. l	.LUX	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							PREIF Holdings Limited Partnership	.GBR	.DS	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							BMC Holdings DE LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-3238351	3456895			Barings Real Estate Advisers Inc.	.CA	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Massachusetts Mutual Life Insurance Company				Ownership/Influence	19.900	MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000							Aland Royalty GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Alaska Future Fund GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BAI Funds SLP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BAI GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Baring Asset-Based Income Fund (US) GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings CMS Fund GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Infiniti Fund Management LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings New Jersey Emerging Manager Program GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Massachusetts Mutual Life Insurance Company				Ownership	100.000	MMLIC		
.0000							Barings Hotel Opportunity Venture 1 GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Baring Investment Series LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Emerging Generation Fund GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Emerging Generation Fund GP II, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings EPLF4 Rated Feeder, L.P.	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings ERS PE Emerging Manager III GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings FC III LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Investment Funds (U.S.) Management LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Barings CLO Investment Partners GP, LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Core Property Fund GP LLC	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings DAPPLF1 Rated Feeder, G.P.	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings DAPPLF1 Rated Feeder, L.P.	.DE	.DS	Barings LLC	Ownership	100.000	MMLIC		

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PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000							Barings Direct Lending GP Ltd.	.CVM	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Diversified Residential Fund GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Diversified Residential Fund LP	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Energy Infrastructure Advisors, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Capital Solutions Perpetual Fund GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Centre Street CLO Equity Partnership GP, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			88-3792609				Barings Centre Street CLO Equity Partnership LP	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	24.110	MMLIC		
.0000			88-3792609				Barings Centre Street CLO Equity Partnership LP	.DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Real Assets Fund GP, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings GPSF LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings North American Private Loan Fund Management, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings North American Private Loan Fund II Management, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings North American Private Loan Fund III Management, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Special Situations Credit Fund 4 GP (Delaware) LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings - MM Revolver Fund GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Real Estate European Value Add Fund II Feeder LLC	.CVM	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings SEM GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BMT RE Debt Fund GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			84-5063008				Barings Small Business Fund LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	32.300	MMLIC		
.0000			84-5063008				Barings Small Business Fund LLC	.DE	DS	Barings LLC	Management		MMLIC		
.0000							Barings TYIDF2 Rated Feeder GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings TYIDF2 Rated Feeder, L.P.	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BCLF GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0536233				Benton Street Advisors, Inc.	.CVM	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Active Passive Equity Direct EAFE LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BHOVI Incentive LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BIG Real Estate Fund GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BIG Real Estate Incentive I LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BIG Real Estate Incentive II LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BRECS VII GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BREDIF GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CPF Springing Member, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CREA-MA Reorganization Trust	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CREF X GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Great Lakes III GP, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Lake Jackson LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Emerging Markets Blended Fund I GP, LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings EPLF4 Rated Feeder GP LLC	.DE	DS	Barings LLC	Ownership	100.000	MMLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
.0000			41-2280126				Mezzco III LLC	.DE	.DS	Barings LLC	Ownership	99.300	MLLIC		
.0000			80-0920285				Mezzco IV LLC	.DE	.DS	Barings LLC	Ownership	99.300	MLLIC		
.0000							Mezzco Australia II LLC	.DE	.DS	Barings LLC	Ownership	100.000	MLLIC		
.0000							RECSA-NY GP LLC	.DE	.DS	Barings LLC	Ownership	100.000	MLLIC		
.0000			98-1624360				Barings CLO 2022-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2022-II	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Amherst Long Term Holdings, LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	24.500	MLLIC		
.0000							Enroll Confidently, Inc.	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	25.000	MLLIC		
.0000			04-3313782				MassMutual International LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							MassMutual Solutions LLC	.DE	.DS	MassMutual International LLC	Ownership	100.000	MLLIC		
.0000							Haven Technologies Asia Limited	.HKG	.DS	MassMutual Solutions LLC	Ownership	100.000	MLLIC		
.0000							Yunfeng Financial Group Limited	.HKG	.DS	MassMutual International LLC	Ownership	24.900	MLLIC		
.0000			27-3576835				MassMutual External Benefits Group LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							5301 Wisconsin Avenue Associates, LLC	.DC	.DS	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MLLIC		
.0000							5301 Wisconsin Avenue GP, LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-1590850				100 w. 3rd Street LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			82-2432216				300 South Tryon Hotel LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-1590850				300 South Tryon LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	.GBR	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	72.900	MLLIC		
.0000							Barings Affordable Housing Mortgage Fund I LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							Barings Affordable Housing Mortgage Fund I LLC	.DE	.NIA	Barings LLC	Management		MLLIC		
.0000			61-1902329				Barings Affordable Housing Mortgage Fund II LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			61-1902329				Barings Affordable Housing Mortgage Fund II LLC	.DE	.NIA	Barings LLC	Management		MLLIC		
.0000			85-3036663				Barings Affordable Housing Mortgage Fund III LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			85-3036663				Barings Affordable Housing Mortgage Fund III LLC	.DE	.NIA	Barings LLC	Management		MLLIC		
.0000							Barings Construction Lending Fund LP	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	85.710	MLLIC		
.0000							Barings Emerging Generation Fund II LP	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	39.700	MLLIC		
.0000			84-3784245				Barings Emerging Generation Fund, LP	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	33.850	MLLIC		
.0000			84-3784245				Barings Emerging Generation Fund, LP	.DE	.DS	Barings LLC	Management		MLLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	.IRL	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence		MLLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	.IRL	.NIA	Barings LLC	Ownership	56.900	MLLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000							Barings Hotel Opportunity Venture I LP	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership/Influence	65.000	MLLIC		
.0000							Barings Hotel Opportunity Venture I LP	DE	DS	Barings LLC	Management		MLLIC		
.0000			04-1590850				Barings Miller Investment Trust	AUS	DS	Massachusetts Mutual Life Insurance Company	Ownership	57.330	MLLIC		
.0000			04-1590850				Barings Miller Investment Trust	AUS	DS	MassMutual Ascend Life Insurance Company	Ownership	9.330	MLLIC		
.0000			85-3449260				Barings Real Estate Debt Income Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	66.200	MLLIC		
.0000			85-3449260				Barings Real Estate Debt Income Fund LP	DE	NIA	C.M. Life Insurance Company	Influence		MLLIC		
.0000			85-3449260				Barings Real Estate Debt Income Fund LP	DE	NIA	Barings LLC	Management		MLLIC		
.0000							Barings Real Estate European Value Add I SCSp	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	44.000	MLLIC		
.0000							Barings Real Estate European Value Add I SCSp	GBR	NIA	C.M. Life Insurance Company	Ownership	4.900	MLLIC		
.0000							Barings Real Estate European Value Add I SCSp	GBR	NIA	Barings LLC	Management		MLLIC		
.0000							Barings Small Business Fund, L.P.	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	33.600	MLLIC		
.0000							Barings U.S. High Yield Fund	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	30.090	MLLIC		
.0000							Barings-MM Revolver Fund LP	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership/Influence	86.000	MLLIC		
.0000							Barings-MM Revolver Fund LP	DE	DS	MM Ascend	Ownership/Influence	14.000	MLLIC		
.0000							Beauty Brands Acquisition LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	32.630	MLLIC		
.0000							Beauty Brands Acquisition Intermediate LLC	DE	NIA	Beauty Brands Acquisition LLC	Ownership	100.000	MLLIC		
.0000							Beauty Brands Acquisition Intermediate LLC	DE	NIA	Beauty Brands Acquisition Intermediate LLC	Ownership	100.000	MLLIC		
.0000							Forma Brands, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			45-2632610				Cornerstone Permanent Mortgage Fund LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			45-2632610				Cornerstone Permanent Mortgage Fund LLC	MA	NIA	Barings LLC	Management		MLLIC		
.0000							CREA Ridge Apartments, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							Euro Real Estate Holdings Herleshhausen LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	47.500	MLLIC		
.0000							London Office JV Holdings LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							Riverwalk MM Member, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			83-0560183				Aland Royalty Holdings LP	DE	DS	MassMutual Holding LLC	Ownership/Influence	26.690	MLLIC		
.0000			83-0560183				Aland Royalty Holdings LP	DE	DS	Barings LLC	Management		MLLIC		
.0000			81-2244465				Chassis Acquisition Holding LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership/Influence	30.000	MLLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership/Influence	40.000	MLLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	DE	DS	Barings LLC	Influence		MLLIC		
.0000							EIP Holdings I, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership/Influence	29.000	MLLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership/Influence	31.520	MLLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	DS	Barings LLC	Influence		MLLIC		
.0000			46-0687392				Validus Holding Company LLC	DE	DS	Barings LLC	Ownership	40.440	MLLIC		

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
.0000			04-1590850				SBNP SIA II LLC	.DE	.DS	Barings LLC	Ownership	100.000	MLLIC		
.0000							SBNP SIA III LLC	.DE	.DS	Barings LLC	Ownership	100.000	MLLIC		
.0000							Barings European Real Estate Debt Income Fund	.LUX	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	54.700	MLLIC		
.0000							Barings European Real Estate Debt Income Fund	.LUX	.NIA	Barings LLC	Influence		MLLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	76.630	MLLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	.DE	.NIA	C.M. Life Insurance Company	Ownership	3.800	MLLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	.DE	.NIA	Barings LLC	Management		MLLIC		
.0000							Barings US High Yield Bond Fund	.IRL	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence		MLLIC		
.0000							Barings US High Yield Bond Fund	.IRL	.NIA	Barings LLC	Management		MLLIC		
.0000							Babson CLO Ltd. 2015-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		2
.0000							Babson CLO Ltd. 2015-II	.CYM	.NIA	Barings LLC	Influence		MLLIC		3
.0000							Babson CLO Ltd. 2016-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Babson CLO Ltd. 2016-II	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO Ltd. 2017-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2018-III	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000			98-1473665				Barings CLO 2018-IV	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2019-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2019-III	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2019-IV	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2020-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2020-II	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2020-III	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2020-IV	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2021-I	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2021-II	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings CLO 2021-III	.CYM	.NIA	Barings LLC	Influence		MLLIC		
.0000							Babson Euro CLO 2014-I BV	.NLD	.NIA	Barings LLC	Influence		MLLIC		
.0000							Babson Euro CLO 2014-II BV	.NLD	.NIA	Barings LLC	Influence		MLLIC		
.0000							Babson Euro CLO 2015-I BV	.NLD	.NIA	Barings LLC	Influence		MLLIC		
.0000			36-037260H				Barings Euro CLO 2019-I BV	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings Euro CLO 2019-II BV	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings Euro CLO 2020-I DAC	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000			37-15576VH				Barings Euro CLO 2021-I DAC	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings Euro CLO 2021-II DAC	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings Euro CLO 2021-III DAC	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000							Barings Euro CLO 2023-II DAC	.IRL	.NIA	Barings LLC	Influence		MLLIC		
.0000			98-1332384				Barings Global Energy Infrastructure Fund I LP	.CYM	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	97.550	MLLIC		
.0000							Barings Global Special Situations Credit 4 Delaware	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	67.230	MLLIC		
.0000							Barings Global Special Situations Credit 4 Delaware	.DE	.NIA	C.M. Life Insurance Company	Ownership	3.540	MLLIC		
.0000							Barings Global Special Situations Credit 4 Delaware	.DE	.NIA	Barings LLC	Management		MLLIC		

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
.0000							Barings Global Special Situations Credit 4 LUX	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	13.200	MMLIC		
.0000							Barings Global Special Situations Credit 4 LUX	.LUX	NIA	C.M. Life Insurance Company	Ownership	0.700	MMLIC		
.0000							Barings Global Special Situations Credit 4 LUX	.LUX	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Europe Select Fund	.IRL	NIA	Barings LLC	Management		MMLIC		
.0000			87-0977058				Barings Hotel Opportunity Venture	.CT	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	49.300	MMLIC		
.0000			87-0977058				Barings Hotel Opportunity Venture	.CT	NIA	Barings LLC	Management		MMLIC		
.0000			86-3661023				Barings Innovations & Growth Real Estate Fund	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	29.700	MMLIC		
.0000			86-3661023				Barings Innovations & Growth Real Estate Fund	.DE	NIA	C.M. Life Insurance Company	Ownership	0.400	MMLIC		
.0000							Barings Middle Market CLO 2017-I Ltd & LLC	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Middle Market CLO 2018-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Middle Market CLO 2019-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000			98-1612604				Barings Middle Market CLO Ltd 2021-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Middle Market CLO Ltd 2023-I	.BMJ	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Middle Market CLO Ltd 2023-II	.BMJ	NIA	Barings LLC	Influence		MMLIC		
.0000			98-1332384				Barings RE Credit Strategies VII LP	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	34.800	MMLIC		
.0000			98-1332384				Barings RE Credit Strategies VII LP	.DE	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			98-1567942				Barings Target Yield Infrastructure Debt Fund	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.600	MMLIC		
.0000			98-1567942				Barings Target Yield Infrastructure Debt Fund	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.600	MMLIC		
.0000			81-0841854				Barings CLO Investment Partners LP	.DE	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			81-0841854				Barings CLO Investment Partners LP	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	89.700	MMLIC		
.0000							Barings Euro Value Add II (BREEVA II)	.LUX	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Euro Value Add II (BREEVA II)	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	27.500	MMLIC		
.0000							Barings Euro Value Add II (BREEVA II)	.LUX	NIA	C.M. Life Insurance Company	Ownership	2.400	MMLIC		
.0000			87-1262754				Barings Euro Value Add II (BREEVA II)	.LUX	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Transportation Fund LP	.DE	NIA	MassMutual Holding LLC	Ownership/Influence	11.100	MMLIC		
.0000			87-1262754				Barings Transportation Fund LP	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	8.200	MMLIC		
.0000							Barings Transportation Fund LP	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	8.200	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.500	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.500	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	.DE	NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	.DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings European Core Property Fund SCSp	.LUX	NIA	MassMutual Holding LLC	Ownership/Influence	12.500	MMLIC		
.0000							Barings European Core Property Fund SCSp	.LUX	NIA	MassMutual Holding LLC	Ownership/Influence	12.500	MMLIC		
.0000							Barings European Core Property Fund SCSp	.LUX	NIA	C.M. Life Insurance Company	Ownership	0.800	MMLIC		
.0000							Barings European Core Property Fund SCSp	.LUX	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			46-5001122				Barings European Private Loan Fund III A	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	43.320	MMLIC		
.0000			38-4059932				Benchmark 2018-B2 Mortgage Trust	.NY	NIA	Barings LLC	Influence		MMLIC		
.0000							Benchmark 2018-B4	.NY	NIA	Barings LLC	Influence		MMLIC		
.0000			38-4096530				Benchmark 2018-B8	.NY	NIA	Barings LLC	Influence		MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	.DE	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Core Property Fund LP	.DE	NIA	MassMutual Holding LLC	Ownership/Influence	24.400	MMLIC		

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			04-1590850				DPI Acres Capital SPV LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				DPI-ARES Mortgage Lending SPV, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							E2E Affordable Housing Debt Fund LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			37-1708623				Great Lakes III, L.P.	DE	NIA	Company	Ownership/Influence	41.570	MMLIC		
.0000			37-1708623				Great Lakes III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			98-1607033				GIA EU Holdings - Emerson JV Sarl	LUX	NIA	Company	Ownership/Influence	55.500	MMLIC		
.0000			98-1607033				GIA EU Holdings - Emerson JV Sarl	LUX	NIA	Barings LLC	Management		MMLIC		
.0000							JPMCC Commercial Mortgage Securities Trust 2017-JP7	NY	NIA	Barings LLC	Influence		MMLIC		
.0000			38-4041011				JPMDB Commercial Mortgage Securities Trust 2017-C5	NY	NIA	Barings LLC	Influence		MMLIC		
.0000			38-4032059				Martello Re Feeder LP	DE	NIA	MassMutual Holding LLC	Ownership	44.000	MMLIC		
.0000							Martello Re LP	DE	NIA	Martello Re Feeder LP	Ownership	54.000	MMLIC		
.0000							Martello Re Holding Limited LLC	DE	NIA	Martello Re LP	Ownership	100.000	MMLIC		
.0000							Martello Re Limited	BMJ	NIA	Martello Re Holding Limited LLC	Ownership	100.000	MMLIC		
.0000							Martello Re Services Company	DE	NIA	Martello Re Holding Limited LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Miami Douglas Three MM, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			87-4021641				MM BIG Peninsula Co-Invest Member LLC	DE	NIA	Company	Ownership	27.000	MMLIC		
.0000			87-4021641				MM BIG Peninsula Co-Invest Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.800	MMLIC		
.0000			04-1590850				MM Direct Private Investment Holding	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM CM Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-3000420				MM Debt Participations LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			81-3000420				MM Debt Participations LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000			04-1590850				MM MD1 Station Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	47.000	MMLIC		
.0000			04-1590850				MM MD1 Station Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.100	MMLIC		
.0000			04-1590850				MM MD2 Station Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	47.000	MMLIC		
.0000			04-1590850				MM MD2 Station Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.100	MMLIC		
.0000			04-1590850				MMV Climate Technology Fund GP	DE	NIA	Company	Ownership	99.000	MMLIC		
.0000			04-1590850				MMV Climate Technology Fund GP	DE	NIA	Massachusetts Mutual Ascend	Ownership	1.000	MMLIC		
.0000							MM REED District Landco Member LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Subline Borrower LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Washington Pine LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			35-2553915				Ten Fan Pier Boulevard LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Yes/No)	*
.0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	MassMutual Holding LLC Massachusetts Mutual Life Insurance Company	Ownership/Influence	18.180	MMLIC		
.0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE	NIA	Barings LLC Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000			04-1590850				Trailside MM Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	66.970	MMLIC		
.0000			04-1590850				Trailside MM Member LLC	DE	NIA	C.M. Life Insurance Company Massachusetts Mutual Life Insurance Company	Ownership	7.380	MMLIC		
.0000			83-1325764				Washington Gateway Two LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.800	MMLIC		
.0000			83-1325764				Washington Gateway Two LLC	DE	NIA	C.M. Life Insurance Company Massachusetts Mutual Life Insurance Company	Ownership	6.720	MMLIC		
.0000			32-0574045				Washington Gateway Three LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.230	MMLIC		
.0000							MALIC Debt Participations LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Babson Capital Loan Strategies Master Fund LP	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Barings China Aggregate Bond Private Securities Investment Fund	CYM	NIA	Barings LLC	Management		MMLIC		
.0000			47-3790192				Barings Global High Yield Fund	CHN	NIA	Barings LLC	Management		MMLIC		
.0000			71-1018134				Great Lakes II LLC	MA	NIA	Barings LLC	Management		MMLIC		
.0000			71-1018134				Great Lakes II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.750	MMLIC		
.0000							Wood Creek Venture Fund LLC	DE	NIA	C.M. Life Insurance Company Massachusetts Mutual Life Insurance Company	Ownership	0.320	MMLIC		
.0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	40.000	MMLIC		
.0000							Barings California Mortgage Fund IV	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Barings Umbrella Fund LUX SCSp SICAV RAIF	LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	24.960	MMLIC		
.0000							Barings Umbrella Fund LUX SCSp SICAV RAIF	LUX	NIA	C.M. Life Insurance Company Massachusetts Mutual Life Insurance Company	Ownership	2.300	MMLIC		
.0000			82-2285211				Calgary Railway Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			82-3307907				Cornbrook PRS Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund I LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund II LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund III LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company Massachusetts Mutual Life Insurance Company	Ownership	5.900	MMLIC		
.0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Barings LLC Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000							Cornerstone Permanent Mortgage Fund III LLC	MA	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			61-1793735				Cornerstone Permanent Mortgage Fund IV	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-0348173				CREA/PPC Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	28.520	MMLIC		

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			82-2783393				Danville Riverwalk Venture, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	94.400	MMLIC		
.0000			04-1590850				Euro Real Estate Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	50.000	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	65.000	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.850	MMLIC		
.0000			04-1590850				GIA EU Holdings LLC - Avalon Spain	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				GIA EU Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-5360103				Landmark Manchester Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			13-1935920				MMLIC Debt Participations LLC	DE	NIA	Massachusetts Mutual Ascend	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Brookhaven Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			04-1590850				MM Ascend Mtg. Lending LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Kannapolis Industrial Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	82.720	MMLIC		
.0000			04-1590850				MM Kannapolis Industrial Member LLC	DE	NIA	Massachusetts Mutual Ascend	Ownership	12.280	MMLIC		
.0000			04-1590850				MM East South Crossing Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			04-1590850				MM Horizon Savannah Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			04-1590850				MM Horizon Savannah Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.700	MMLIC		
.0000			04-1590850				MM Horizon Savannah Member II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.430	MMLIC		
.0000			04-1590850				MM Horizon Savannah Member II LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.180	MMLIC		
.0000			04-1590850				MM Horizon Savannah Member II LLC	DE	NIA	Massachusetts Mutual Ascend	Ownership	0.380	MMLIC		
.0000			04-1590850				MM National Self-Storage Program Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	98.000	MMLIC		
.0000			04-1590850				MM 1370 AVE OF AM LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			04-1590850				MM 1370 AVE OF AM LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.330	MMLIC		
.0000			04-1590850				MM 1400 E 4th Street Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	96.000	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	94.990	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.030	MMLIC		
.0000			04-1590850				Paco France Logistics LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Salomon Brothers Commercial Mortgage Trust 2001-MM	DE	NIA	Barings Real Estate Advisers LLC	Influence		MMLIC		
.0000			81-5273574				Three PW Office Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.100	MMLIC		
.0000			04-1590850				Trailside MM Member II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	47.100	MMLIC		
.0000			82-3250684				Unna, Dortmund Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.440	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.770	MMLIC		
.0000			88-3861481				West 37th Street Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	93.800	MMLIC		

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			88-3861481				West 37th Street Hotel LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.200	MLLIC		
.0000			51-0529328		0000927972	00	MassMutual Premier Main Street Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.890	MLLIC		
.0000			26-3229251		0000927972	00	MassMutual Premier Strategic Emerging Markets Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	58.850	MLLIC		
.0000			42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	35.710	MLLIC		
.0000			02-0769954		0000916053	00	MassMutual Select Small Capital Value Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			04-3584140		0000916053	00	MassMutual Select Small Company Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.340	MLLIC		
.0000			82-3347422		0000916053	00	MassMutual Select T. Rowe Price Retirement 2005 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	10.000	MLLIC		
.0000			82-3355639		0000916053	00	MassMutual Select T. Rowe Price Retirement 2010 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3382389		0000916053	00	MassMutual Select T. Rowe Price Retirement 2015 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3396442		0000916053	00	MassMutual Select T. Rowe Price Retirement 2020 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3417420		0000916053	00	MassMutual Select T. Rowe Price Retirement 2025 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3430358		0000916053	00	MassMutual Select T. Rowe Price Retirement 2030 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3439837		0000916053	00	MassMutual Select T. Rowe Price Retirement 2035 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3451779		0000916053	00	MassMutual Select T. Rowe Price Retirement 2040 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3472295		0000916053	00	MassMutual Select T. Rowe Price Retirement 2045 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3481715		0000916053	00	MassMutual Select T. Rowe Price Retirement 2050 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3502011		0000916053	00	MassMutual Select T. Rowe Price Retirement 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3525148		0000916053	00	MassMutual Select T. Rowe Price Retirement 2060 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			82-3533944		0000916053	00	MassMutual Select T. Rowe Price Retirement Balanced Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			46-4257056				MML Series International Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	100.000	MLLIC		
.0000			47-3529636				MML Series II Dynamic Bond Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence		MLLIC		
.0000			47-3544629				MML Series II Equity Rotation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.230	MLLIC		
.0000			27-1933389		0000916053	00	MassMutual RetireSMART 2035 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	3.280	MLLIC		
.0000			27-1932769		0000916053	00	MassMutual RetireSMART 2045 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	7.690	MLLIC		
.0000			46-3289207		0000916053	00	MassMutual RetireSMART 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	21.960	MLLIC		
.0000			47-5326235		0000916053	00	MassMutual RetireSMART 2060 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	38.540	MLLIC		
.0000			45-1618155		0000916053	00	MassMutual 20/80 Allocation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	100.000	MLLIC		

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PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			45-1618222		0000916053	Q0	MassMutual 80/20 Allocation Fund	..MANIA	Massachusetts Mutual Life Insurance Company	Ownership	36.460	MLLIC		
.0000			03-0532464		0000916053	Q0	MassMutual RetireSMART In Retirement Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	7.040	MLLIC		
.0000			45-1618262		0000916053	Q0	MassMutual 40/60 Allocation Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Influence	100.000	MLLIC		
.0000			45-1618046		0000916053	Q0	MassMutual 60/40 Allocation Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			45-1618046		0000916053	Q0	MassMutual ishares 60/40 Allocation Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	59.950	MLLIC		
.0000			04-3212054		0000916053	Q0	MassMutual Balanced Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3556992		0000916053	Q0	MassMutual Blue Chip Growth Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3277549		0000916053	Q0	MassMutual Core Bond Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	21.020	MLLIC		
.0000			04-3539084		0000916053	Q0	MassMutual Disciplined Growth Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3539083		0000916053	Q0	MassMutual Disciplined Value Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			01-0821120		0000916053	Q0	MassMutual Diversified Value Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3512590		0000916053	Q0	MassMutual Equity Opportunities Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3512589		0000916053	Q0	MassMutual Growth Opportunities Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			03-0532475		0000916053	Q0	MassMutual Inflation-Protected and Income Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.790	MLLIC		
.0000			04-3512596		0000916053	Q0	MassMutual Mid Cap Growth Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3464165		0000916053	Q0	MassMutual Premier Diversified Bond Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			92-1441036		0000916053	Q0	MassMutual RetireSMART by JPMorgan 2065 Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	92.320	MLLIC		
.0000			45-1618222		0000916053	Q0	MassMutual Select 80/20 Allocation Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3584138		0000916053	Q0	MassMutual Select Fundamental Value Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			04-3557000		0000916053	Q0	MassMutual Select Overseas Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			92-1427882		0000916053	Q0	MassMutual Select T Rowe Price Retirement 2065 Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	23.000	MLLIC		
.0000			04-3464205		0000916053	Q0	MassMutual Small Cap Growth Equity Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	61.350	MLLIC		
.0000			04-3424705		0000916053	Q0	MassMutual Small Cap Opportunities Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	10.370	MLLIC		
.0000			02-0769954		0000916053	Q0	MassMutual Small Cap Value Equity Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			26-0099965		0000916053	Q0	MassMutual Strategic Bond Fund	..MA	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000			93-4168848		0000916053	Q0	MassMutual Clinton Municipal Credit Opportunities Fund	..MANIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		

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SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			93-4190918		0000916053	00	MassMutual Clinton Municipal Fund	..MANIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			93-4193313		0000916053	00	MassMutual Clinton Short-Term Municipal Fund	..MANIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		

Asterisk	Explanation
1	Massachusetts Mutual Life Insurance Company owns 14.23% of the affiliated debt of Jefferies Finance LLC
2	Debt investors own .5% and includes only Great Lakes III, L.P.
3	Debt investors own .2% and includes only Great Lakes III, L.P.

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

The following supplemental reports are required to be filed as part of your statement filing. However, in the event that your company does not transact the type of business for which the special report must be filed, your response of NO to the specific interrogatory will be accepted in lieu of filing a "NONE" report and a bar code will be printed below. If the supplement is required of your company but is not being filed for whatever reason enter SEE EXPLANATION and provide an explanation following the interrogatory questions.

	Response
1. Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
2. Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
3. Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
4. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
5. Will the Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI be filed with the state of domicile and electronically with the NAIC?	NO
6. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average Market Value) be filed with the state of domicile and electronically with the NAIC?	NO
7. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) be filed with the state of domicile and electronically with the NAIC?	NO
8. Will the Life PBR Statement of Exemption be filed with the state of domicile by July 1st and electronically with the NAIC with the second quarterly filing per the Valuation Manual (by August 15)? (2nd Quarter Only) The response for 1st and 3rd quarters should be N/A. A NO response resulting with a bar code is only appropriate in the 2nd quarter. In the case of an ongoing statement of exemption, enter "SEE EXPLANATION" and provide as an explanation that the company is utilizing an ongoing statement of exemption.	NO

AUGUST FILING

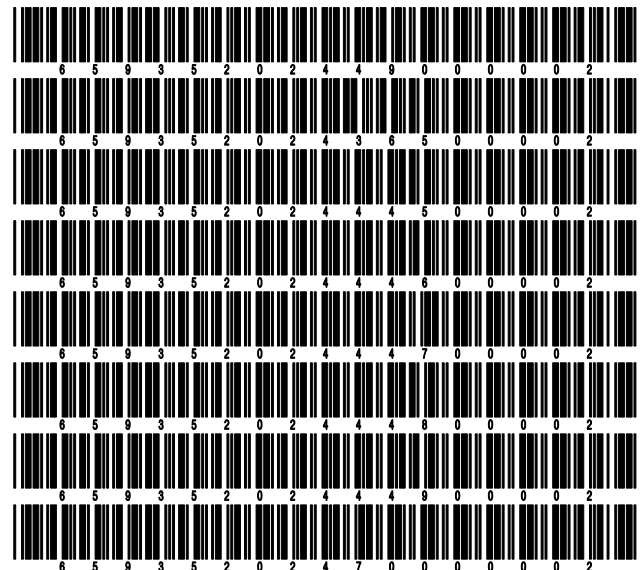
9. Will the regulator-only (non-public) Communication of Internal Control Related Matters Noted in Audit be filed with the state of domicile and electronically with the NAIC (as a regulator-only non-public document) by August 1? The response for 1st and 3rd quarters should be N/A. A NO response resulting with a bar code is only appropriate in the 2nd quarter.	YES
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Explanation:

1. Not required
2. This line of business is not written by the company
3. Not required
4. Not required
5. Not required
6. Not required
7. Not required
8. Not required

Bar Code:

1. Trusteed Surplus Statement [Document Identifier 490]
2. Medicare Part D Coverage Supplement [Document Identifier 365]
3. Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445]
4. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 446]
5. Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447]
6. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448]
7. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449]
8. Life PBR Statement of Exemption (2nd Quarter Only) [Document Identifier 700]



STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Assets Line 25

	Current Statement Date			4 December 31 Prior Year Net Admitted Assets
	1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	
2504. Employee insurance plan advances	41,295,192	245	41,294,948	41,030,235
2505. Investment in trust	16,377,538		16,377,538	18,032,856
2506. Pension plan asset	641,707,432	641,707,432		
2507. Cash advances to agents	318,645,348	318,645,348		
2508. Receivable for commissions and expenses on long-term lease	147,496,676	147,496,676		
2509. Intangible assets	25,425,821	25,425,821		
2510. Bills receivable	50,783	50,783		
2511. Real estate notes receivable				13,942,880
2597. Summary of remaining write-ins for Line 25 from overflow page	1,190,998,790	1,133,326,305	57,672,485	73,005,971

Additional Write-ins for Liabilities Line 25

	1 Current Statement Date	2 December 31 Prior Year
2504. Funds awaiting escheat and other miscellaneous	135,658,941	97,415,150
2505. Deferred income liability	23,838,125	24,107,096
2597. Summary of remaining write-ins for Line 25 from overflow page	159,497,066	121,522,246

Additional Write-ins for Summary of Operations Line 8.3

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
08.304. Miscellaneous income	(19,822,731)	(79,295,833)	(44,794,986)
08.305. Revenue sharing	(124,647)	45,694,261	13,151,484
08.397. Summary of remaining write-ins for Line 8.3 from overflow page	(19,947,378)	(33,601,573)	(31,643,502)

Additional Write-ins for Summary of Operations Line 27

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
2704. Miscellaneous charges to operations	(6,262,229)	(31,233,510)	(24,570,678)
2797. Summary of remaining write-ins for Line 27 from overflow page	(6,262,229)	(31,233,510)	(24,570,678)

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE A - VERIFICATION

Real Estate

	1 Year to Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	329,428,627	354,748,274
2. Cost of acquired:		
2.1 Actual cost at time of acquisition		
2.2 Additional investment made after acquisition	608,864	8,066,745
3. Current year change in encumbrances	915,000	500,000
4. Total gain (loss) on disposals		2,896,140
5. Deduct amounts received on disposals	1	5,488,624
6. Total foreign exchange change in book/adjusted carrying value		
7. Deduct current year's other than temporary impairment recognized		
8. Deduct current year's depreciation	15,511,969	31,293,907
9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8)	315,440,521	329,428,627
10. Deduct total nonadmitted amounts		
11. Statement value at end of current period (Line 9 minus Line 10)	315,440,521	329,428,627

SCHEDULE B - VERIFICATION

Mortgage Loans

	1 Year to Date	2 Prior Year Ended December 31
1. Book value/recorded investment excluding accrued interest, December 31 of prior year	24,178,006,005	24,971,963,928
2. Cost of acquired:		
2.1 Actual cost at time of acquisition	1,570,525,795	2,495,345,390
2.2 Additional investment made after acquisition	268,178,223	400,450,389
3. Capitalized deferred interest and other	21,332,500	29,385,406
4. Accrual of discount	5,090,161	11,578,646
5. Unrealized valuation increase/(decrease)		
6. Total gain (loss) on disposals	(40,731,909)	(60,142,091)
7. Deduct amounts received on disposals	1,437,964,378	3,813,446,547
8. Deduct amortization of premium and mortgage interest points and commitment fees	21,067,248	728,320
9. Total foreign exchange change in book value/recorded investment excluding accrued interest	(26,957,056)	156,385,276
10. Deduct current year's other than temporary impairment recognized		12,786,072
11. Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	24,516,412,093	24,178,006,005
12. Total valuation allowance	(232,325,872)	(157,357,251)
13. Subtotal (Line 11 plus Line 12)	24,284,086,221	24,020,648,754
14. Deduct total nonadmitted amounts		
15. Statement value at end of current period (Line 13 minus Line 14)	24,284,086,221	24,020,648,754

SCHEDULE BA - VERIFICATION

Other Long-Term Invested Assets

	1 Year to Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	12,954,768,745	12,340,402,460
2. Cost of acquired:		
2.1 Actual cost at time of acquisition	486,010,807	789,247,712
2.2 Additional investment made after acquisition	1,217,160,151	2,636,007,925
3. Capitalized deferred interest and other		
4. Accrual of discount	10,114,496	40,577,707
5. Unrealized valuation increase/(decrease)	456,420,547	663,698,044
6. Total gain (loss) on disposals	(3,285,512)	38,415,281
7. Deduct amounts received on disposals	985,677,721	3,243,774,880
8. Deduct amortization of premium and depreciation	830,142	36,477,673
9. Total foreign exchange change in book/adjusted carrying value	(44,478,863)	79,530,117
10. Deduct current year's other than temporary impairment recognized	44,779,686	352,857,947
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	14,045,422,821	12,954,768,745
12. Deduct total nonadmitted amounts	66,948,339	47,399,948
13. Statement value at end of current period (Line 11 minus Line 12)	13,978,474,482	12,907,368,797

SCHEDULE D - VERIFICATION

Bonds and Stocks

	1 Year to Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value of bonds and stocks, December 31 of prior year	171,997,873,272	163,056,331,820
2. Cost of bonds and stocks acquired	37,305,914,990	34,039,047,366
3. Accrual of discount	163,018,262	296,445,916
4. Unrealized valuation increase/(decrease)	636,107,596	679,502,590
5. Total gain (loss) on disposals	(116,628,644)	(502,564,865)
6. Deduct consideration for bonds and stocks disposed of	22,794,906,038	26,048,157,876
7. Deduct amortization of premium	47,360,599	155,833,363
8. Total foreign exchange change in book/adjusted carrying value	(435,015,829)	810,384,429
9. Deduct current year's other than temporary impairment recognized	102,416,045	178,667,445
10. Total investment income recognized as a result of prepayment penalties and/or acceleration fees	11,193,517	1,384,700
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	186,617,780,482	171,997,873,272
12. Deduct total nonadmitted amounts		
13. Statement value at end of current period (Line 11 minus Line 12)	186,617,780,482	171,997,873,272

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE D - PART 1B

Showing the Acquisitions, Dispositions and Non-Trading Activity
During the Current Quarter for all Bonds and Preferred Stock by NAIC Designation

NAIC Designation	1 Book/Adjusted Carrying Value Beginning of Current Quarter	2 Acquisitions During Current Quarter	3 Dispositions During Current Quarter	4 Non-Trading Activity During Current Quarter	5 Book/Adjusted Carrying Value End of First Quarter	6 Book/Adjusted Carrying Value End of Second Quarter	7 Book/Adjusted Carrying Value End of Third Quarter	8 Book/Adjusted Carrying Value December 31 Prior Year
BONDS								
1. NAIC 1 (a)	87,932,401,106	38,008,331,678	34,631,509,659	1,159,511,811	87,932,401,106	92,468,734,936		84,527,362,887
2. NAIC 2 (a)	59,055,218,799	66,286,540,140	68,673,412,787	2,086,296,553	59,055,218,799	58,754,642,705		60,171,684,095
3. NAIC 3 (a)	3,730,150,074	227,918,326	854,341,580	616,587,207	3,730,150,074	3,720,314,028		3,623,999,423
4. NAIC 4 (a)	3,043,287,655	1,009,830,444	209,260,413	(674,535,505)	3,043,287,655	3,169,322,182		2,859,470,709
5. NAIC 5 (a)	2,358,922,405	76,530,095	287,869,577	31,699,362	2,358,922,405	2,179,282,284		2,513,596,496
6. NAIC 6 (a)	361,753,354	10,050,007	76,452,961	205,669,946	361,753,354	501,020,346		399,926,882
7. Total Bonds	156,481,733,392	105,619,200,689	104,732,846,976	3,425,229,375	156,481,733,392	160,793,316,481		154,096,040,492
PREFERRED STOCK								
8. NAIC 1	198,539,149	15,000,000	10,900,000	353,005	198,539,149	202,992,154		198,539,149
9. NAIC 2	265,807,266	(42,483,801)	10,145,831	1,034,239	265,807,266	214,211,873		151,822,207
10. NAIC 3	26,546,647		8,181,765	(342,955)	26,546,647	18,021,927		25,913,847
11. NAIC 4	8,293,773	4,261,997			8,293,773	12,555,770		7,912,253
12. NAIC 5	21,210,615	(3,375,000)		(9,573)	21,210,615	17,826,042		18,708,181
13. NAIC 6	48,271,604	36,908,360	19,489	(2,331,734)	48,271,604	82,828,741		43,129,765
14. Total Preferred Stock	568,669,054	10,311,556	29,247,085	(1,297,018)	568,669,054	548,436,507		446,025,402
15. Total Bonds and Preferred Stock	157,050,402,446	105,629,512,245	104,762,094,061	3,423,932,357	157,050,402,446	161,341,752,988		154,542,065,894

(a) Book/Adjusted Carrying Value column for the end of the current reporting period includes the following amount of short-term and cash equivalent bonds by NAIC designation:

NAIC 1 \$ 1,556,758,910 ; NAIC 2 \$ 1,297,720,597 ; NAIC 3 \$ 4,678,738 ; NAIC 4 \$ 25,076,963 ; NAIC 5 \$ 409,283 ; NAIC 6 \$

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SCHEDULE DA - PART 1

Short-Term Investments

	1	2	3	4	5
	Book/Adjusted Carrying Value	Par Value	Actual Cost	Interest Collected Year-to-Date	Paid for Accrued Interest Year-to-Date
7709999999 Totals	1,348,205,810	xxx	1,337,150,588	15,496,580	726,268

SCHEDULE DA - VERIFICATION

Short-Term Investments

	1	2
	Year To Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	2,212,955,592	525,180,990
2. Cost of short-term investments acquired	1,688,461,934	4,213,816,446
3. Accrual of discount	35,392,200	36,135,134
4. Unrealized valuation increase/(decrease)		
5. Total gain (loss) on disposals	243,011	(317,146)
6. Deduct consideration received on disposals	2,588,846,927	2,561,859,833
7. Deduct amortization of premium		
8. Total foreign exchange change in book/adjusted carrying value		
9. Deduct current year's other than temporary impairment recognized		
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)	1,348,205,810	2,212,955,592
11. Deduct total nonadmitted amounts		
12. Statement value at end of current period (Line 10 minus Line 11)	1,348,205,810	2,212,955,592

SCHEDULE DB - PART A - VERIFICATION

Options, Caps, Floors, Collars, Swaps and Forwards

1. Book/Adjusted Carrying Value, December 31, prior year (Line 10, prior year)	6,978,311,064
2. Cost Paid/(Consideration Received) on additions	(123,749,435)
3. Unrealized Valuation increase/(decrease)	(216,901,557)
4. SSAP No. 108 adjustments	
5. Total gain (loss) on termination recognized	(215,031,384)
6. Considerations received/(paid) on terminations	(250,076,831)
7. Amortization	(124,174)
8. Adjustment to the Book/Adjusted Carrying Value of hedged item	
9. Total foreign exchange change in Book/Adjusted Carrying Value	281,392,550
10. Book/Adjusted Carrying Value at End of Current Period (Lines 1+2+3+4+5-6+7+8+9)	6,953,973,895
11. Deduct nonadmitted assets	
12. Statement value at end of current period (Line 10 minus Line 11)	6,953,973,895

SCHEDULE DB - PART B - VERIFICATION

Futures Contracts

1. Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year).....	27,325,766
2. Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cumulative Cash Change column)	
3.1 Add:	
Change in variation margin on open contracts - Highly Effective Hedges	
3.11 Section 1, Column 15, current year to date minus	
3.12 Section 1, Column 15, prior year	
Change in variation margin on open contracts - All Other	
3.13 Section 1, Column 18, current year to date minus	2,817,307
3.14 Section 1, Column 18, prior year	27,325,765
	(24,508,458)
	(24,508,458)
3.2 Add:	
Change in adjustment to basis of hedged item	
3.21 Section 1, Column 17, current year to date minus	
3.22 Section 1, Column 17, prior year	
Change in amount recognized	
3.23 Section 1, Column 19, current year to date minus	2,817,307
3.24 Section 1, Column 19, prior year plus	27,325,765
3.25 SSAP No. 108 adjustments	(24,508,458)
	(24,508,458)
3.3 Subtotal (Line 3.1 minus Line 3.2)	
4.1 Cumulative variation margin on terminated contracts during the year	(25,980,335)
4.2 Less:	
4.21 Amount used to adjust basis of hedged item	
4.22 Amount recognized	(53,306,099)
4.23 SSAP No. 108 adjustments	(53,306,099)
4.3 Subtotal (Line 4.1 minus Line 4.2)	27,325,765
5. Dispositions gains (losses) on contracts terminated in prior year:	
5.1 Total gain (loss) recognized for terminations in prior year	
5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year	(2,817,307)
6. Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)	2,817,308
7. Deduct total nonadmitted amounts	
8. Statement value at end of current period (Line 6 minus Line 7)	2,817,308

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*FX4	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1	50,000,000	16,185,879	(342,256)	09/05/2023	06/03/2051	SOFR Replacement Swap - CME cleared	18,748	(16,515,918)	42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	16,167,131	16,173,663
57629*FX4	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1	20,000,000	20,187,860	20,187,860	09/05/2023	06/03/2051	SOFR Replacement Swap - CME cleared			171937-AA-3	CIFC-LBC MIDDLE MKT CLO 2023-1 LLC - CLBC 2023-1A C	1	20,000,000	20,187,860
57629*FX4	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1	10,000,000	10,003,170	10,003,170	09/05/2023	06/03/2051	SOFR Replacement Swap - CME cleared			09629L-AE-5	BLUEMOUNTAIN CLO XXIII L-BLUEM 2018-23A B	1	10,000,000	10,003,170
57629*FX4	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1	10,000,000	10,000,000	10,000,000	09/05/2023	06/03/2051	SOFR Replacement Swap - CME cleared			04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	10,000,000	10,000,000
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	264,000,000	2,669,479	(53,212,490)	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR		(55,867,784)	83149F-AD-6	SLM Student Loan Trust 2006-6 GILBERT PARK CLO LTD-SERIES 17-1A CLASS A	1	2,669,479	2,655,294
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	11,842,922	11,889,869	11,889,869	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			375415-AA-4	OCP CLO 2017-14 Ltd-SERIES 17-14A CLASS A1B	1	11,842,922	11,889,869
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	13,100,000	13,112,995	13,112,995	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			67097Q-AC-9	Atlas Securitized Products Funding 3 LP - Class A	1	13,100,000	13,112,995
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	35,000,000	35,000,000	35,000,000	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			04940#-AA-9	Signal Peak CLO 8 Ltd-SPEAK 2020-8A C	1	35,000,000	35,000,000
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	10,000,000	10,005,940	10,005,940	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			56845N-AE-0	S22 Funding CLO 2019-5 L-MORGN 2021-7A B	1	10,000,000	10,005,940
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	10,000,000	9,995,650	9,995,650	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			33833V-AE-5	Anchorage Capital CLO Lt-ANCHC 2018-10A B	1	10,000,000	9,995,650
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	11,050,000	11,054,089	11,054,089	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			03331J-AJ-1	Goldentree Loan Opportun-GLD12 2016-12A AJR	1	11,050,000	11,054,089
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	15,000,000	15,009,090	15,009,090	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			38137M-AK-3	Apidos CLO-APID 2018-29A B	1	15,000,000	15,009,090
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	4,500,000	4,501,886	4,501,886	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			03767M-AJ-7	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A1	1	4,500,000	4,501,886
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	18,773,602	18,798,365	18,798,365	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			17181T-AA-9	ARES CLO Ltd-ARES 2018-49A B	1	18,773,602	18,798,365
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	12,000,000	12,009,180	12,009,180	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			04017J-AE-1	Babson CLO Ltd 2015-I-SERIES 2015-1A CLASS DR	2	12,000,000	12,019,668
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	1,220,000	1,223,588	1,223,588	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			056162-AU-4	BABSON CLO LTD 2015-II-SERIES 15-2A CLASS C1R	1	1,220,000	1,223,588
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	196,970	197,292	197,292	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			06759F-AE-6	Landmark Equity Partners XVI-D, LLC	1	196,970	197,292
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	126,125,000	126,125,000	126,125,000	05/30/2023	11/29/2042	Interest Rate Swap - OTC SOFR			515095-MM-6	OCP CLO Ltd-SEREIS 18-15A CLASS A3	1	126,125,000	126,125,000
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	12,000,000	(6,794,408)	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR		(18,814,076)	67112K-AC-3	Babson CLO Ltd 2015-I-BABSN 2015-IA AR	1	12,000,000	12,019,668
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	8,919,371	8,923,198	8,923,198	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			056162-AN-0	Atlas Securitized Products Funding 3 LP - Class A	1	8,919,371	8,923,198
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	20,000,000	20,000,000	20,000,000	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			04940#-AA-9	TICOP CLO XV Ltd-TICOP 2020-15A B HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B1	1	20,000,000	20,000,000
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,900,000	5,902,242	5,902,242	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			87250R-AB-0	JPMorgan Chase & Co-SENIOR UNSECURED	1	5,900,000	5,902,242
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	1,874,528	1,003,057	1,003,057	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			429827-AR-9	RR 25 Ltd-RRAM 2023-25A A1R	1	1,874,528	1,003,057
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	8,212,086	7,850,190	7,850,190	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			46647P-AR-7	WACHOVIA STUDENT LOAN TR-WSLT 2005-1 B	1	8,212,086	7,850,190
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	50,000,000	50,277,700	50,277,700	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR		(18,814,076)	75000K-AN-7	Wellfleet CLO 2017-1 Ltd-WELF 2017-1A A2R	1	50,000,000	50,277,700
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	4,655,070	(14,094,599)	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			92977H-AG-3	610 Funding CLO-SIX10 2021-2RA A1R2	1	4,655,070	4,719,477
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	9,997,032	9,995,436	9,995,436	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			94950G-AN-7	Babson CLO Ltd/Cayman Is-BABSN 2018-3A A2	1	9,997,032	9,995,436
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	30,000,000	30,022,950	30,022,950	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			83004L-AC-9	Madison Park Funding Ltd-SERIES 18-28A CLASS B	1	30,000,000	30,022,950
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	23,000,000	23,001,035	23,001,035	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			06760P-AE-1		1	23,000,000	23,001,035
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	9,500,000	9,515,077	9,515,077	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR			55821A-AE-8		1	9,500,000	9,515,077

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,700,000	6,709,735	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR				06760B-AC-6	BABSON CLO LTD-SERIES 17-1A CLASS A2	1	6,700,000	6,709,735
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,250,000	3,253,513	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR				08759B-AE-8	BETHPAGE PARK CLO LTD-BETHP 2021-1A C	1	3,250,000	3,253,513
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		840,427	801,068	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR				784424-AE-3	SLC STUDENT LOAN TRUST 2-SERIES 07-1 CLASS B	1	840,427	801,068
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,477,439	5,268,800	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR				62983P-AB-1	Nakilat Inc-SECURED 144A	1	5,477,439	5,268,800
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,000,000	06/27/2023	12/27/2042	Interest Rate Swap - OTC SOFR				04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	15,000,000	15,000,000
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	6,000,000	(12,713,187)	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(18,715,293)		38138B-AG-5	Goldentree Loan Managem-GLM 2018-3A B1	1	6,000,000	6,002,106
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,007,620	06/28/2023	12/28/2042	Interest Rate Swap - OTC				56845N-AC-4	Signal Peak CLO 8 Ltd-SPEAK 2020-8A B	1	20,000,000	20,007,620
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,750,000	13,777,335	06/28/2023	12/28/2042	Interest Rate Swap - OTC				55954K-AN-5	Magnelite XIX Ltd-SERIES 2017-19A CLASS B1R	1	13,750,000	13,777,335
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		34,745,000	34,755,007	06/28/2023	12/28/2042	Interest Rate Swap - OTC				13876N-AL-7	Canyon CLO 2020-2 Ltd-CANVC 2020-2A AR	1	34,745,000	34,755,007
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,152,003	9,406,276	06/28/2023	12/28/2042	Interest Rate Swap - OTC				92917N-AJ-7	Voya CLO 2019-1 Ltd-VOYA 2019-1A AR	1	9,152,003	9,406,276
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,028,492	1,968,625	06/28/2023	12/28/2042	Interest Rate Swap - OTC				64033T-AB-9	NELNET STUDENT LOAN TRUS-SERIES 2015-3A CLASS B	1	2,028,492	1,968,625
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,000,000	3,002,226	06/28/2023	12/28/2042	Interest Rate Swap - OTC				87248K-AS-3	TICOP CLO VI 2016-5 LTD-TICOP 2016-5A A2R	1	3,000,000	3,002,226
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,000,000	1,000,587	06/28/2023	12/28/2042	Interest Rate Swap - OTC				94950J-AA-9	Wellfleet CLO Ltd-SERIES 18-1A CLASS A	1	1,000,000	1,000,587
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,060,000	5,060,015	06/28/2023	12/28/2042	Interest Rate Swap - OTC				92917A-AE-6	Voya CLO Ltd-SERIES 18-1A CLASS B	1	5,060,000	5,060,015
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,150,000	3,154,429	06/28/2023	12/28/2042	Interest Rate Swap - OTC				87168G-AG-4	Symphony CLO XXIX Ltd-SYMP 2021-29A C	1	3,150,000	3,154,429
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,200,000	3,203,904	06/28/2023	12/28/2042	Interest Rate Swap - OTC				33836J-AG-4	ASSURANT CLO I LTD-MORGN 2017-1A CR	1	3,200,000	3,203,904
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,052,360	06/28/2023	12/28/2042	Interest Rate Swap - OTC				617924-AE-5	Morgan Stanley Eaton Van-MSEV 2022-18A B	1	10,000,000	10,052,360
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	18,870,075	165,858	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(18,715,293)		94950J-AA-9	Wellfleet CLO Ltd-SERIES 18-1A CLASS A	1	18,870,075	18,881,152
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,189,636	9,200,471	06/28/2023	12/28/2042	Interest Rate Swap - OTC				06759F-AB-2	BABSON CLO LTD 2015-11-SERIES 15-2A CLASS AR	1	9,189,636	9,200,471
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,032,860	06/28/2023	12/28/2042	Interest Rate Swap - OTC				04017T-AE-9	Ares XXXIR CLO Ltd-SERIES 14-31RA CLASS B	1	20,000,000	20,032,860
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,600,000	1,602,162	06/28/2023	12/28/2042	Interest Rate Swap - OTC				87248M-AW-2	TICOP CLO VI 2016-2 Ltd-TICOP 2016-6A CR2	1	1,600,000	1,602,162
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,200,000	4,205,565	06/28/2023	12/28/2042	Interest Rate Swap - OTC				12551R-AE-8	CIFC Funding 2018-1 Ltd-SERIES 18-1A CLASS C	1	4,200,000	4,205,565
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,100,000	1,101,080	06/28/2023	12/28/2042	Interest Rate Swap - OTC				08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	1,101,080
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,575,000	8,128,080	06/28/2023	12/28/2042	Interest Rate Swap - OTC				151895-DE-5	CenterPoint Properties T Senior Note Ser	1	8,575,000	8,128,080
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		82,000,000	82,154,078	06/28/2023	12/28/2042	Interest Rate Swap - OTC				01750H-AQ-5	Alllegro CLO XI Ltd-ALLEG 2019-2A A1AR	1	82,000,000	82,154,078
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,000,000	13,000,000	06/28/2023	12/28/2042	Interest Rate Swap - OTC				18685B-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	13,000,000	13,000,000
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	20,000,000	1,288,667	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(18,715,293)		09628N-AQ-5	BlueMountain CLO 2015-4 -SERIES 15-4A CLASS A2R	1	20,000,000	20,003,960
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,050,000	11,699,203	06/28/2023	12/28/2042	Interest Rate Swap - OTC				64031D-AB-6	Nelnet Student Loan Trus-SERIES 19-3A CLASS B	1	12,050,000	11,699,203
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,919,052	1,702,489	06/28/2023	12/28/2042	Interest Rate Swap - OTC				63939F-AC-4	Navient Student Loan Tru-SERIES 15-1 CLASS B	1	1,919,052	1,702,489

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,002,860	06/28/2023	12/28/2042	Interest Rate Swap - OTC				12550G-AE-3	CIFC Funding Ltd-CIFC 2018-5A B ..	1	5,000,000	5,002,860
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,750,000	6,751,532	06/28/2023	12/28/2042	Interest Rate Swap - OTC				77341D-AE-7	Rockford Tower CLO 2017--SERIES 17-3A CLASS B	1	6,750,000	6,751,532
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,600,000	3,604,979	06/28/2023	12/28/2042	Interest Rate Swap - OTC				87249C-AE-1	TICP CLO X LTD-SERIES 18-10A CLASS C	1	3,600,000	3,604,979
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,200,000	3,202,998	06/28/2023	12/28/2042	Interest Rate Swap - OTC				48250R-BN-5	KKR CLO 12 Ltd-KKR 12 BR2	1	3,200,000	3,202,998
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,000,000	06/28/2023	12/28/2042	Interest Rate Swap - OTC				04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	10,000,000	10,000,000
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		38,600,000	38,628,448	06/28/2023	12/28/2042	Interest Rate Swap - OTC				06762L-AM-0	Barings CLO Ltd 2020-I-BABS 2020-1A AR	1	38,600,000	38,628,448
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,092,810	6,970,145	06/28/2023	12/28/2042	Interest Rate Swap - OTC				032095-AH-4	Amphenol Corp-SENIOR UNSECURED	1	7,092,810	6,970,145
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	50,000,000	9,550,000	192,353	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(9,357,647)		04965F-AG-6	Atrium XV-SERIES 15A CLASS B	1	9,550,000	9,550,000
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,680,086	15,157,401	06/28/2023	12/28/2042	Interest Rate Swap - OTC				66704J-CB-2	NORTHSTAR EDUCATION FINA-SERIES 07-1 CLASS B	1	18,680,086	15,157,401
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,600,000	5,398,626	06/28/2023	12/28/2042	Interest Rate Swap - OTC				64034N-AB-1	NSLT 2019-2A B	1	5,600,000	5,398,626
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,100,000	2,963,517	06/28/2023	12/28/2042	Interest Rate Swap - OTC				63940A-AD-0	NAVIENT STUDENT LOAN TRU-SERIES 17-4A CLASS B	1	3,100,000	2,963,517
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,000,000	6,007,416	06/28/2023	12/28/2042	Interest Rate Swap - OTC				06762L-AN-8	Barings CLO Ltd 2020-I-BABS 2020-1A BR	1	6,000,000	6,007,416
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,100,000	1,101,080	06/28/2023	12/28/2042	Interest Rate Swap - OTC				08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	1,101,080
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,500,000	2,508,750	06/28/2023	12/28/2042	Interest Rate Swap - OTC				13876J-AE-2	Canyon Capital CLO Ltd-CANVC 2012-1RA B	1	2,500,000	2,508,750
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,425,427	06/28/2023	12/28/2042	Interest Rate Swap - OTC				77342K-AC-4	Rockford Tower CLO 2018-2 Ltd	1	6,400,000	6,425,427
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,050,000	8,058,734	06/28/2023	12/28/2042	Interest Rate Swap - OTC				06760G-AC-5	Barings CLO Ltd 2018-I-SERIES 18-1A CLASS B	1	8,050,000	8,058,734
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	50,000,000	10,000,000	647,733	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(9,357,647)		24380L-AE-3	DEER CREEK CLO LTD 2017--SERIES 17-1A CLASS B	1	10,000,000	10,005,380
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		24,500,000	24,531,948	06/28/2023	12/28/2042	Interest Rate Swap - OTC				05683E-AN-2	Bain Capital Credit CLO -BCC 2020-2A AR	1	24,500,000	24,531,948
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,000,000	06/28/2023	12/28/2042	Interest Rate Swap - OTC				04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	10,000,000	10,000,000
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,000,000	4,004,160	06/28/2023	12/28/2042	Interest Rate Swap - OTC				05874X-AC-3	Ballyrock CDO Ltd-BALLY 2020-14A A2	1	4,000,000	4,004,160
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,400,000	3,406,647	06/28/2023	12/28/2042	Interest Rate Swap - OTC				75009P-AE-7	Rad CLO 12 Ltd-RAD 2021-12A C	1	3,400,000	3,406,647
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,066,897	6,307,277	06/28/2023	12/28/2042	Interest Rate Swap - OTC				46149M-AA-4	Invesco CLO Ltd-INVCO 2021-2A A .. Barings Middle Market CL-BMM 2021-1A B	1	6,066,897	6,307,277
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	50,000,000	24,500,000	15,149,434	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(9,357,647)		06760W-AG-1		1	24,500,000	24,507,081
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,750,000	9,749,552	06/28/2023	12/28/2042	Interest Rate Swap - OTC				92918Q-AE-0	Voya CLO Ltd-VOYA 2021-1A B	1	9,750,000	9,749,552
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,100,000	1,101,080	06/28/2023	12/28/2042	Interest Rate Swap - OTC				08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	1,101,080
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,600,000	4,604,977	06/28/2023	12/28/2042	Interest Rate Swap - OTC				05875H-AE-3	Ballyrock CLO 2018-1 Ltd-SERIES 2018-1A CLASS B	1	4,600,000	4,604,977
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,375,000	6,351,179	06/28/2023	12/28/2042	Interest Rate Swap - OTC				680033-AC-1	Old National Bancorp/IN-SENIOR UNSECURED NOTE	2	6,375,000	6,351,179
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,007,885	06/28/2023	12/28/2042	Interest Rate Swap - OTC				55819F-AE-1	Madison Park Funding Ltd-MDPK 2022-55A B1	1	5,000,000	5,007,885
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	50,000,000	11,900,000	2,556,050	06/28/2023	12/28/2042	Interest Rate Swap - OTC		(9,357,647)		74988L-AC-8	ALM XIV Ltd-SERIES 14-14A CLASS A2R2	1	11,900,000	11,913,697
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,000,000	5,914,038	06/28/2023	12/28/2042	Interest Rate Swap - OTC				66704J-AJ-7	Northstar Education Fina-REVENUE BONDS	1	6,000,000	5,914,038

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,000,000	8,026,608	06/28/2023	12/28/2042	Interest Rate Swap - OTC				39808P-AN-6	Greywolf CLO V Ltd-GWOLF 2015-1A A2R	1	8,000,000	8,026,608
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,200,000	11,219,398	06/28/2023	12/28/2042	Interest Rate Swap - OTC				08181B-AS-8	Benefit Street Partners -SERIES 16-9A CLASS BR	1	11,200,000	11,219,398
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,000,000	8,004,320	06/28/2023	12/28/2042	Interest Rate Swap - OTC				94951D-AC-7	Wellfleet CLO 2018-3 Ltd-SERIES 18-3A CLASS A1B	1	8,000,000	8,004,320
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,292,441	6,839,041	06/28/2023	12/28/2042	Interest Rate Swap - OTC				05389L-AB-9	Avolon Aerospace Leasing Secured Note B7	1	7,292,441	6,839,041
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		350,000,000	28,210,272	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared	123,070	(121,702,537)		36248M-AJ-6	GT Loan Financing I Ltd -SERIES 2013-1A CLASS AR	1	28,087,202	28,110,683
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		288,301,948	288,301,948	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				49232F-MM-2	KREOCS LENDING I LLC - Senior Secured Term Facility	1	288,301,948	288,301,948
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,694,315	25,705,209	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				04941Y-AC-3	Atlas Senior Loan Fund X-SERIES 18-11A CLASS A1L	1	25,694,315	25,705,209
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,983,530	23,702,736	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				67332F-AG-8	RRPF Engine Leasing Ltd Senior Secured	2	23,983,530	23,702,736
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,621,828	2,514,213	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				78443G-AJ-4	SLM STUDENT LOAN TRUST 2-SERIES 06-7 CLASS B	1	2,621,828	2,514,213
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,150,658	14,616,180	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				25763F-AF-7	Donaldson Co Inc Senior Unsecured Notes	1	15,150,658	14,616,180
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,846,400	11,215,745	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				392709-AF-8	Green Brick Partners, In Senior Unsecured Notes	1	11,846,400	11,215,745
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,916,853	11,916,853	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				18685E-MM-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	11,916,853	11,916,853
57629*GG0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		225,000,000	190,923,269	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared	79,157	(79,076,731)		88167F-AA-8	Tetragon Financial Group (Delaware) LLC - Revolver	1	270,000,000	270,000,000
57629*GF2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		178,710,145	178,710,145	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				32008Z-MM-6	FIRST EAGLE DIRECT LENDING V-B, LLC - Secured Revolving Loan Facility	1	178,710,145	178,710,145
57629*GF2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,897,279	16,897,279	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				96269F-MM-9	VPC ASSET BACKED OPPORTUNISTIC CREDIT Holdings Fund, L.P - Secured Revolving Loan Facility	1	16,897,279	16,897,279
57629*GF2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,000,000	25,019,425	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				67104L-AF-4	CHA Loan Funding 2013-2 -OHALF 2013-2A BR	1	25,000,000	25,019,425
57629*GF2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,800,000	3,795,269	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				74988L-AJ-3	ALM XIV Ltd-SERIES 14-14A CLASS BR2	1	3,800,000	3,795,269
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		300,000,000	15,105,459	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared	105,459	(103,719,563)		48250W-AJ-4	KKR CLO 14 Ltd-KKR 14 BR	1	15,000,000	15,018,510
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,003,710	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				87248K-AS-3	TICP CLO VI 2016-5 LTD-TICP 2016-5A A2R	1	5,000,000	5,003,710
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,010,027	896,047	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				63939F-AC-4	Navient Student Loan Tru-SERIES 15-1 CLASS B	1	1,010,027	896,047
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,350,000	8,341,533	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				97315T-AG-7	THL Credit Wind River 20-WINDR 2017-1A CR	1	8,350,000	8,341,533
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,299,221	13,315,234	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				06760G-AA-9	Barings CLO Ltd 2018-I-SERIES 18-1A CLASS A1	1	13,299,221	13,315,234
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,014,688	16,504,274	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				13877P-AA-5	Canyon CLO 2021-4 Ltd-CANYC 2021-4A	1	16,014,688	16,504,274
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,200,000	16,204,180	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				06760J-AE-5	Barings CLO Ltd 2018-II-SERIES 2018-2A CLAS A1B	1	16,200,000	16,204,180
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,000,000	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				18685E-MO-7	Cliffwater Corporate Lending Fund - Fourth Amendment Revolver	1	50,000,000	50,000,000
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,001,020	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				13876L-AL-1	Canyon CLO 2020-1 Ltd-CANYC 2020-1A BR	1	10,000,000	10,001,020
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,835,663	25,019,075	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				14317V-AQ-3	CARLYLE US CLO 2019-4 LT-CGMS 2019-4A A11R	1	23,835,663	25,019,075

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,034,725	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				07403C-AC-5	Bear Mountain Park CLO L-BRMTN 2022-1A B	1	15,000,000	15,034,725
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,000,105	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				97988P-BA-3	Woodmont 2017-1 Trust-UDINT 2017-1A A1RR	1	15,000,000	15,000,105
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,116,318	14,604,109	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				28166G-AB-1	EDvestinU Private Educat-SERIES 19-A CLASS B	1	16,116,318	14,604,109
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,637,488	14,164,362	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				039937-AA-5	Ares LXIII CLO Ltd-ARES 2022-63A A1A	1	13,637,488	14,164,362
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,000,000	17,010,574	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				067930-AC-1	Barings Private Credit C-BPCC 2023-1A A2	1	17,000,000	17,010,574
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,500,000	12,530,025	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				67115L-AC-8	Oak Hill Credit Partners-OAKC 2021-16A B	1	12,500,000	12,530,025
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,139,960	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				000842-AA-2	ABPCI DIRECT LENDING FUN-ABPCI 2023-15A A1	1	20,000,000	20,139,960
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,690,662	11,013,343	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				67113G-AC-1	QHA Credit Funding 5 Ltd-OAKC 2020-5A A1	1	10,690,662	11,013,343
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,207,240	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				827925-AE-8	Silver Point Clo 3 Ltd-SPCLO 2023-3A B	1	10,000,000	10,207,240
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,437,535	10,235,450	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				63943B-AA-1	Navigator Aircraft ABS L-NAVTR 2021-1 A	1	11,437,535	10,235,450
57629*GE5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,150,400	09/11/2023	06/10/2051	SOFR Replacement Swap - CME cleared				69121M-AC-4	OR 2023-14A B-OR 2023-14A B	1	10,000,000	10,150,400
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	30,079,799	(57,888,192)	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared	79,799	(87,888,192)		186858-MO-7	Cliffwater Corporate Lending Fund - Fourth Amendment Revolver	1	30,000,000	30,000,000
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,000,000	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				96269#-MM-9	X NH REDF2-TSE SELLER, LLC - Term Loan Facility	1	20,000,000	20,000,000
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,500,000	7,504,193	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				55819T-AU-5	Madison Park Funding XX -SERIES 2016-20A CLASS CR	1	7,500,000	7,504,193
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,450,000	6,961,372	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				64034C-AB-5	Netnet Student Loan Trus-NSLT 2019-1A B	1	7,450,000	6,961,372
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		53,339,795	53,534,372	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				278300-AJ-7	Eaton Vance CLO 2020-1 L-EATON 2020-1A AR	1	53,339,795	53,534,372
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,350,000	5,350,540	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				36320T-AX-1	Galaxy XXII CLO Ltd-GALXY 2016-22A BRR	1	5,350,000	5,350,540
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		60,020,000	60,080,740	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				03768M-AJ-6	Apidos CLO XXXIII-APID 2020-33A AR	1	60,020,000	60,080,740
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,538,407	28,605,898	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				282523-AH-2	1828 CLO Ltd-GUGG4 2016-1A A1S1	1	28,538,407	28,605,898
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,460,500	12,435,280	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				067600-AU-3	Barings Middle Market CL-BMM 2017-1A CR	2	12,460,500	12,435,280
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,800,000	12,608,474	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				06762T-AG-6	Babson CLO Ltd/Cayman Islands YCP RRL ABS II Ltd-VCRRL 2022-1A B	2	12,800,000	12,608,474
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,326,804	1,979,108	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				91824X-AE-0	Bain Capital Credit CLO -BCC 2020-2A DR	2	2,326,804	1,979,108
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,400,000	2,368,087	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				05683E-AU-6	Eaton Vance CLO 2020-1 L-EATON 2020-1A DR	2	2,400,000	2,368,087
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,250,000	2,257,216	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				278300-AQ-1	CIFC Funding 2019-IV Ltd-CIFC 2019-4A A1R	1	2,250,000	2,257,216
57629*GD7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,619,901	15,015,075	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				17182X-AL-5	Sound Point CLO II Ltd-SNDPT 2013-1A A2R	1	14,619,901	15,015,075
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	325,000,000	8,103,791	(107,287,124)	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared	103,791	(115,290,348)		83608G-AQ-9	Bain Capital Credit CLO -SERIES 18-2A CLASS A2	1	8,000,000	8,003,224
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,005,220	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				05682V-AC-9		1	15,000,000	15,005,220

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		138,525,006	139,719,316	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				04940J-AC-7	Atlas Securitized Products Funding 1 LP - Revolver A2	1	138,525,006	139,719,316
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		65,599,443	65,599,443	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				69324#-MN-7	PORED LENDING III LLC, PORED LENDING III SPE I LLC and PORED LENDING III OFFSHORE LTD.-Term Loan 2020-2	1	65,599,443	65,599,443
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,100,000	1,101,080	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	1,101,080
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,800,000	5,805,504	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				01749B-AC-3	Allegro CLO VI Ltd-ALLEG 2017-2A C	1	5,800,000	5,805,504
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,200,000	3,204,893	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				06762J-AE-3	Babson CLO Ltd/Cayman Is-BABSN 2021-2A C	1	3,200,000	3,204,893
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		32,872,352	25,970,606	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				341081-FR-3	Florida Power & Light Co-SECURED	1	32,872,352	25,970,606
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		22,450,421	23,563,327	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				06761M-AC-1	Barings Middle Market CL-BMM 2018-1A B	1	22,450,421	23,563,327
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,600,000	5,607,711	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				13887W-AN-0	Canyon Capital CLO 2019-CANVC 2019-2A CR	1	5,600,000	5,607,711
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,330,000	5,340,223	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				42086N-AJ-7	Hayfin Kingsland XI Ltd-HAYFN 2019-2A BR	1	5,330,000	5,340,223
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,773,681	4,953,722	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				05684C-AL-9	Bain Capital Credit CLO -BCC 2020-3A A1R	1	4,773,681	4,953,722
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,100,000	5,119,752	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				67098D-AW-3	OHA Credit Funding 4 Ltd-OAKC 2019-4A CR	1	5,100,000	5,119,752
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,946,395	6,011,868	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				82670Q-AG-4	Signal Peak CLO 9 Ltd-SPEAK 2021-9A C	1	5,946,395	6,011,868
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,300,000	4,304,347	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				67707L-AJ-7	Oak Hill Credit Partners	1	4,300,000	4,304,347
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,200,000	4,201,890	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				97314D-AG-3	KVK CLO 2016-1 Ltd-KVK 2016-1A CR2	1	4,200,000	4,201,890
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,300,000	4,306,725	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				05682E-AG-8	Bain Capital Credit CLO -BCC 2021-5A C	1	4,300,000	4,306,725
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,525,000	3,531,884	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				64130T-BC-8	Neuberger Berman CLO XX -NEUB 2015-20A BRR	1	3,525,000	3,531,884
57629*GC9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		40,000,000	40,000,000	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				51509S-MM-6	Landmark Equity Partners XVI-D, LLC	1	40,000,000	40,000,000
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	325,000,000	5,903,845	(110,547,118)	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared	103,845	(116,349,217)		67570Q-AP-6	OCP CLO 2019-16 Ltd-SERIES 19-16A CLASS CR	1	5,802,000	5,802,100
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,000,000	12,005,544	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				92917J-AE-7	Voya CLO 2018-2 Ltd-VOYA 2018-2A B1	1	12,000,000	12,005,544
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		70,371,240	70,371,240	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				69324#-MM-9	PORED LENDING III LLC, PORED LENDING III SPE I LLC and PORED LENDING III OFFSHORE LTD.-Term Loan Series 2019-1	1	70,371,240	70,371,240
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		60,000,000	60,068,700	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				83614X-AQ-4	Sound Point CLO XXVI Ltd-SNDPT 2020-1A AR	1	60,000,000	60,068,700
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		57,696,140	58,267,391	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				67115L-AA-2	Oak Hill Credit Partners-OAKC 2021-16A A	1	57,696,140	58,267,391
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		52,445,512	52,455,424	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				67104L-AE-7	OHA Loan Funding 2013-2 -OHALF 2013-2A AR	1	52,445,512	52,455,424
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	49,110,200	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				17275G-AA-4	CIRUS-2018-1A A	1	50,000,000	49,110,200
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	48,383,050	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				25255A-AA-4	DCF 2019-1A A	1	50,000,000	48,383,050
57629*GB1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,100,000	13,130,837	09/11/2023	06/11/2051	SOFR Replacement Swap - OME cleared				67098D-AU-7	OHA Credit Funding 4 Ltd-OAKC 2019-4A BR	1	13,100,000	13,130,837

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	55,000,000	23,500,000	13,227,153	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR	(10,282,459)		92558V-AC-8	Vibrant CLO Ltd-SERIES 18-9A CLASS A2	1	23,500,000	23,509,612
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,517,311	5,517,311	5,392,015	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			78442G-PL-4	SLM STUDENT LOAN TRUST-SERIES 2005-4 CLASS B	1	5,517,311	5,392,015
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	6,400,000	6,400,000	6,407,078	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			01749B-AB-5	Allegro CLO VI Ltd-ALLEG 2017-2A B	1	6,400,000	6,407,078
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	7,500,000	7,500,000	7,521,983	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			77342J-AC-7	Rockford Tower CLO 2018--SERIES 18-1A CLASS B	1	7,500,000	7,521,983
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	6,900,000	6,900,000	6,912,206	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			65023T-AK-8	Newark BSL CLO 1 Ltd-NBCLO 2016-1A A2R	1	6,900,000	6,912,206
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	496,718	496,718	497,502	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			06759F-AD-8	BABSON CLO LTD 2015-II-SERIES 15-2A CLASS B2R	1	496,718	497,502
57629*AW1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	17,000,000	17,000,000	17,229,959	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			38174Z-AC-9	Golub Capital Partners C-GOCAP 2019-42RA A2R	1	17,000,000	17,229,959
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	60,000,000	18,500,000	7,253,079	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR	(11,217,228)		50188G-AX-1	LCM XVIII LP-LCM 18A A2R	1	18,500,000	18,470,308
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	7,500,000	7,500,000	7,502,888	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			33882G-AG-3	Flatiron Clo 17 Ltd-FLAT 2017-1A BR	1	7,500,000	7,502,888
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	4,700,000	4,700,000	4,716,864	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			67707C-AU-2	Oak Hill Credit Partners-OAKC 2014-10RA CR	1	4,700,000	4,716,864
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	2,000,000	2,000,000	2,001,826	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			62849F-AC-6	MYERS PARK CLO LTD-MYERS 2018-1A A2	1	2,000,000	2,001,826
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	4,967,949	4,967,949	5,006,828	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			25654#-AA-0	Dodger Tickets LLC Senior Secured	1	4,967,949	5,006,828
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	8,000,000	8,000,000	8,028,416	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			75009J-AB-7	Rad CLO 17 Ltd-RAD 2022-17A B1	1	8,000,000	8,028,416
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	40,194,608	40,194,608	40,373,434	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			38179N-AB-0	Golub Capital Partners C-GOCAP 2024-71A A	1	40,194,608	40,373,434
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	55,000,000	23,003,361	12,744,819	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR	(10,258,151)		83609Y-AC-0	Sounds Point CLO IV-R LT-SERIES 13-3RA CLASS A	1	23,003,361	23,002,970
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	2,222,777	2,222,777	2,154,497	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			78442G-OA-7	SLM STUDENT LOAN TRUST-SERIES 2005-6 CLASS B	1	2,222,777	2,154,497
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	15,000,000	15,000,000	15,347,385	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			000849-AC-3	ABPCI Direct Lending Fun-ABPCI 2023-16A B	1	15,000,000	15,347,385
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	15,000,000	15,000,000	15,011,355	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			29001L-AN-1	Elmwood CLO II Ltd-ELMW2 2019-2A BR	1	15,000,000	15,011,355
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,900,000	5,900,000	5,906,112	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			40436X-AG-2	HIGHBRIDGE LOAN MANAGEMIE-SERIES 2014 CLASS BR	1	5,900,000	5,906,112
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	55,000,000	25,900,000	15,648,298	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR	(10,258,151)		04016V-AC-9	ARES XLVII CLO Ltd-SERIES 18-47A CLASS A2	1	25,900,000	25,906,449
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	10,000,000	10,000,000	10,000,000	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			186858-MO-7	Cliffwater Corporate Lending Fund - Fourth Amendment Revolver	1	10,000,000	10,000,000
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	10,900,000	10,900,000	10,910,573	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			38138D-AS-5	Goldentree Loan Managemie-GLM 2019-5A CR	1	10,900,000	10,910,573
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,000,000	5,000,000	5,003,915	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			29001L-AQ-4	Elmwood CLO II Ltd-ELMW2 2019-2A CR	1	5,000,000	5,003,915
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	2,575,000	2,575,000	2,578,551	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			08179H-AC-4	Benefit Street Partners -BSP 2017-12A B	1	2,575,000	2,578,551
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	1,000,000	1,000,000	1,003,500	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			13876J-AE-2	Canyon Capital CLO Ltd-CANYC 2012-1RA B	1	1,000,000	1,003,500
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	3,533,358	3,533,358	3,413,192	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			512807-AU-2	Lam Research Corp-SENIOR UNSECURED	1	3,533,358	3,413,192
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,000,000	5,000,000	5,007,885	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			55819F-AE-1	Madison Park Funding Ltd-MDPK 2022-55A B1	1	5,000,000	5,007,885
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	55,000,000	20,812,500	10,677,659	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR	(10,221,609)		06763H-AC-0	Babson CLO Ltd/Cayman Is-BABSN 2022-4A B	1	20,812,500	20,899,267
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	8,473,498	8,473,498	8,602,595	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			87248K-AJ-3	TICP CLO V 2016-1 Ltd-TICP 2016-5A A1R	1	8,473,498	8,602,595
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	13,747,829	13,747,829	13,915,082	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR			05875H-AC-7	BALLYROCK CLO 2018-1 LTD-SERIES 2018-1A CLASS A2	1	13,747,829	13,915,082

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,000,000	1,000,913	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				62848F-AC-6	MYERS PARK CLO LTD-MYERS 2018-1A A2	1	1,000,000	1,000,913
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,500,000	5,509,532	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				48661N-AE-8	KAYNE CLO-SERIES 19-6A CLASS B1	1	5,500,000	5,509,532
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,846,670	6,021,614	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				25654#-AB-8	Dodger Tickets LLC Senior Secured Marble Point CLO XI Ltd-NP11 2017-2A A	1	5,846,670	6,021,614
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		60,000,000	11,997,008	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR		(11,150,846)		56607F-AA-3	NORTHSTAR EDUCATION FINA-SERIES 04-2 CLASS B	1	11,997,008	12,006,761
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,571,709	3,897,600	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				66704J-BD-9	NORTHSTAR EDUCATION FINA-SERIES 05-1 CLASS B	1	4,571,709	3,897,600
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,027,563	3,410,400	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				66704J-BK-3	Wellfleet CLO Ltd-SERIES 18-1A CLASS B	1	4,027,563	3,410,400
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,500,000	3,504,288	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				94950J-AC-5	Crestline Denali CLO Ltd-SERIES 2018-1A CLASS C	1	3,500,000	3,504,288
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,200,000	3,203,520	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				22615E-AE-0	MYERS PARK CLO LTD-MYERS 2018-1A A2	1	3,200,000	3,203,520
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,000,000	2,001,826	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				62848F-AC-6	Highbridge Loan Managemen-SERIES 4A-2014 CLASS A2R	1	2,000,000	2,001,826
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,900,000	11,911,805	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				44330G-AE-3	H.H.I. HULL NO. S856 L.L Guaranteed Notes	1	11,900,000	11,911,805
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,662,500	6,310,793	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				404250-AA-3	JCP Direct Lending CLO 2-JCPDL 2022-11 C	1	6,662,500	6,310,793
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,441,625	4,460,804	04/11/2023	04/09/2043	Interest Rate Swap - OTC SOFR				46655H-AF-0	KKR CLO 50 Ltd-KKR 2024-50A A	1	4,441,625	4,460,804
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		85,000,000	85,419,985	04/11/2023	04/09/2043	SOFR Replacement Swap - CME cleared				481952-AA-7	Cliffwater Corporate Lending Fund - Fourth Amendment Revolver	1	85,000,000	85,419,985
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	225,000,000	100,071,864	20,017,593	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared	71,864	(79,982,407)		186858-MO-7	KKR CLO 14 Ltd-KKR 14 AR	1	100,000,000	100,000,000
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		152,702	152,891	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				48250W-AG-0	Carlyle Global Market St-CGMS 2014-2RA A2	1	152,702	152,891
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,002,225	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				14314L-AE-5	Nelnet Student Loan Trus-NSLT 2020-5A B	1	5,000,000	5,002,225
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,500,000	2,503,094	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				64032V-AB-5	VPC SPECIALTY LENDING INVESTMENTS INTERMEDIATE, L.P. - Secured	1	2,500,000	2,503,094
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,895,090	41,895,090	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				91831Z-MM-5	Benefit Street Partners -SERIES 18-14A CLASS A2	1	41,895,090	41,895,090
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,400,000	13,400,161	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				08179L-AC-5	Diameter Capital CLO 1 L-DOLO 2021-1A A2	1	13,400,000	13,400,161
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,100,000	7,105,794	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				25255D-AE-0	Mesa Air Group, Inc. Class A Notes	1	7,100,000	7,105,794
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,470,891	19,240,521	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				590488-AA-6	Landmark Equity Partners XVI-D, LLC	2	20,470,891	19,240,521
57629*GA3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		56,000,000	56,000,000	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				515095-MM-6	Atlas Securitized Products Funding 3 LP - Class A	1	56,000,000	56,000,000
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	40,079,830	(48,504,985)	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared	79,830	(88,504,985)		04940#-AA-9	DRYDEN 64 CLO LTD-DRSLF 2018-64A A	1	40,000,000	40,000,000
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,188,666	21,197,311	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				26251L-AC-8	Atlas Senior Loan Fund X-ATCLO 2018-10A B	1	21,188,666	21,197,311
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,700,000	4,711,750	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				04942J-AE-1	Wellfleet CLO Ltd-WELF 2021-1A C	1	4,700,000	4,711,750
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,000,000	6,911,184	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				94950C-AG-1	Invesco CMI Investments MM, LLC - Senior Secured Notes - Term Loan Series 2020-1	1	7,000,000	6,911,184
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		128,265,550	128,265,550	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				46143#-MM-6	Barings Middle Market CL-BMM 2021-1A A2	2	128,265,550	128,265,550
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		31,600,000	31,602,307	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				06760W-AE-6		1	31,600,000	31,602,307

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		24,435,854	23,709,402	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				62983P-AA-3	Nakilat Inc-SECURED BOND	1	24,435,854	23,709,402
57629*FZ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,000,000	11,000,000	09/11/2023	06/11/2051	SOFR Replacement Swap - CME cleared				186856-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	11,000,000	11,000,000
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	65,012,552	58,724,124	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared	12,552	(6,379,811)		03665Y-AN-5	Antares CLO 2019-2 LTD-ANTR 2019-2A A1R	1	65,000,000	65,103,935
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,102,153	16,869,310	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				14316Y-AA-3	Carlyle US CLO 2021-10 L-CGMS 2021-10A A	1	16,102,153	16,869,310
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,700,000	13,710,138	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				05682L-AL-1	Bain Capital Credit CLO -BCC 2019-2A BR	1	13,700,000	13,710,138
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,050,000	8,053,317	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				48252R-AQ-7	KKR CLO 24 Ltd-KKR 24 BR	1	8,050,000	8,053,317
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,321,519	5,328,112	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				48250W-AG-0	KKR CLO 14 Ltd-KKR 14 AR	1	5,321,519	5,328,112
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,000,000	25,283,025	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				69121M-AA-8	OWL ROCK CLO LTD-OR 2023-14A A	1	25,000,000	25,283,025
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,315,000	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				05685J-AS-8	Bain Capital Credit CLO -BCC 2022-5A DR	2	10,000,000	10,315,000
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,000,000	3,002,400	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				09630Q-AN-1	BlueMountain CLO XXX Ltd-BLUEM 2020-30A BR	1	3,000,000	3,002,400
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,650,000	1,627,799	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				06760G-AD-3	Barings CLO Ltd 2018-I-SERIES 18-1A CLASS C	2	1,650,000	1,627,799
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	16,874,836	13,209,080	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared	12,548	(6,363,949)		346845-AC-4	Fort Benning Family Comm-UNSECURED	1	16,862,288	19,573,029
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,820,000	21,820,000	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	21,820,000	21,820,000
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,300,000	18,319,233	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				83012Q-AA-2	Sixth Street CLO-SIXST 2021-20A A1	1	18,300,000	18,319,233
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,400,000	9,399,878	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				88434H-AE-3	THL Credit Wind River 20-SERIES 18-2A CLASS A2	1	9,400,000	9,399,878
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,700,000	3,702,960	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				09630Q-AN-1	BlueMountain CLO XXX Ltd-BLUEM 2020-30A BR	1	3,700,000	3,702,960
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,625,000	13,626,158	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				04017E-AE-2	JRES XXXIIR CLO LTD-SERIES 14-32RA CLASS A1B	1	13,625,000	13,626,158
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,531,162	1,572,828	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				00435T-AB-7	ACCESS GROUP INC-SERIES 2015-1 CLASS B	1	1,531,162	1,572,828
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,000,000	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	10,000,000	10,000,000
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,188,867	4,059,999	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				91159H-HR-4	US Bancorp-SENIOR UNSECURED	1	4,188,867	4,059,999
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,900,000	6,925,682	09/05/2023	03/05/2034	SOFR Replacement Swap - CME cleared				06762V-AC-0	Barings Loan Partners CL-BABSN 2022-3A B	1	6,900,000	6,925,682
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	125,000,000	39,288,079	28,852,333	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared	38,186	(10,468,793)		77342J-AA-1	Rockford Tower CLO 2018-SERIES 18-1A CLASS A	1	39,249,893	39,321,126
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,000,000	7,006,489	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				64130P-AE-3	Neuberger Berman CLO Ltd-NEUB 2018-28A B	1	7,000,000	7,006,489
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,002,460	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				13877E-AE-2	Canyon Capital CLO Ltd-CANYC 2021-1A B	1	15,000,000	15,002,460
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,955,600	7,111,999	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				64132J-AN-5	Neuberger Berman Loan Ad-NEUB 2019-31A AR	1	6,955,600	7,111,999
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		40,000,000	40,000,000	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	40,000,000	40,000,000
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,750,000	6,754,118	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				087598-AC-2	BETHPAGE PARK CLO LTD-BETHP 2021-1A B	1	6,750,000	6,754,118

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	8,838,740	8,838,740	8,671,740	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				559222-AR-5	Magna International Inc-SR UNSECURED	1	8,838,740	8,671,740
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,922,166	5,922,166	5,972,860	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				46655H-AH-6	JCP Direct Lending CLO 2-JCPDL 2022-1I D	2	5,922,166	5,972,860
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	14,507,604	14,507,604	14,768,667	08/21/2023	05/19/2034	SOFR Replacement Swap - CME cleared				64033A-AB-0	Nelnet Student Loan Trus-NSLT 2012-4A B	1	14,507,604	14,768,667
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	85,000,000	18,884,551	12,519,992	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared	17,828	(6,356,164)		12551R-AA-6	CIFC Funding 2018-I Ltd-CIFC 2018-1A A	1	18,866,722	18,876,156
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,650,000	5,650,000	5,653,034	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				50184N-AN-2	LGM LTD PARTNERSHIP-SERIES 15A CLASS BR	1	5,650,000	5,653,034
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,592,289	5,592,289	5,662,452	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				04009G-AE-7	APES L CLO Ltd-SERIES 19-53A CLASS B	1	5,592,289	5,662,452
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	6,400,000	6,400,000	6,384,422	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				97314D-AE-8	KVK CLO 2016-1 Ltd-KVK 2016-1A BR2	1	6,400,000	6,384,422
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	16,674,775	16,674,775	16,742,160	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				77342K-AA-8	ROCKFORD TOWER CLO 2018--ROCKT 2018-2A A	1	16,674,775	16,742,160
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	3,900,000	3,900,000	3,899,029	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				05683L-AG-1	Bain Capital Credit CLO -SERIES 1A CLASS C	1	3,900,000	3,899,029
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	45,837,500	45,837,500	45,837,500	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				143088-MM-7	Carlyle Aviation Runway PDP Fund LP - Revolving Promissary Note	1	45,837,500	45,837,500
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,000,000	5,000,000	5,007,885	08/09/2023	05/09/2034	SOFR Replacement Swap - CME cleared				55819F-AE-1	Madison Park Funding Ltd-MDPK 2022-55A B1	1	5,000,000	5,007,885
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	55,000,000	10,016,184	4,560,073	07/06/2023	10/06/2034	SOFR Replacement Swap - CME cleared	16,184	(5,452,557)		55819B-AN-0	Madison Park Funding XVI-MDPK 2015-18A BR	1	10,000,000	10,012,630
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	20,100,000	20,100,000	20,103,960	07/06/2023	10/06/2034	SOFR Replacement Swap - CME cleared				06760G-AB-7	Barings CLO Ltd 2018-I-SERIES 18-1A CLASS A2	1	20,100,000	20,103,960
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	14,972,387	14,972,387	15,033,306	07/06/2023	10/06/2034	SOFR Replacement Swap - CME cleared				77341D-AA-5	Rockford Tower CLO 2017--ROCKT 2017-3A A	1	14,972,387	15,033,306
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	3,100,000	3,100,000	3,102,880	07/06/2023	10/06/2034	SOFR Replacement Swap - CME cleared				04943A-AG-4	ATLAS SENIOR LOAN FUND L-SERIES 17-8A CLASS C	1	3,100,000	3,102,880
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	5,557,196	5,557,196	5,365,112	07/06/2023	10/06/2034	SOFR Replacement Swap - CME cleared				172967-LIV-9	Citigroup Inc-SENIOR UNSECURED	1	5,557,196	5,365,112
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	10,000,000	10,000,000	10,000,000	07/06/2023	10/06/2034	SOFR Replacement Swap - CME cleared				04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	10,000,000	10,000,000
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	78,036,162	41,549,593	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared	36,162	(36,327,011)		58803T-AQ-4	MidOcean Credit CLO XII -MIDO 2023-12A A1R	1	78,000,000	77,876,604
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	1,985,222	1,985,222	2,146,304	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				429827-AS-7	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B2	1	1,985,222	2,146,304
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	10,200,000	10,200,000	10,207,232	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				00889B-AB-7	Aimco CDO-AIMCO 2021-15A B	1	10,200,000	10,207,232
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	16,773,177	16,773,177	16,935,083	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				55818Y-BN-0	Madison Park Funding XVI-MDPK 2015-17A AR2	1	16,773,177	16,935,083
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	20,500,000	20,500,000	20,514,289	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				449272-AA-1	ICG US CLO Ltd-ICG 2021-4A A1	1	20,500,000	20,514,289
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	20,000,000	20,000,000	20,049,880	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				67707C-AS-7	Oak Hill Credit Partners-OAKC 2014-10RA BR	1	20,000,000	20,049,880
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	8,700,000	8,700,000	8,687,124	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				33836J-AE-9	ASSURANT CLO I LTD-MORGAN 2017-1A BR	1	8,700,000	8,687,124
57629*FY2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	12,000,000	12,000,000	12,000,000	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				186856-MM-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	12,000,000	12,000,000
57629*GH8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	60,090,315	(29,449,293)	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared	90,315	(89,449,293)		04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	60,000,000	60,000,000
57629*GH8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	41,543,790	41,543,790	41,724,892	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				05682V-AA-3	BAIN CAPITAL CREDIT CLO -SERIES 18-2A CLASS A1	1	41,543,790	41,724,892

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,650,000	5,653,955	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				78108Y-AQ-5	RR 1 LLC-RRAM 2017-1A A2B	1	5,650,000	5,653,955
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,500,000	10,503,906	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				14315L-AC-8	Carlyle Global Market St-SERIES 14-3RA CLASS A1B	1	10,500,000	10,503,906
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,500,000	10,508,274	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				12564D-AC-8	CIFC Funding Ltd-CIFC 2021-3A B	1	10,500,000	10,508,274
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,018,330	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				69701X-AC-8	Palmer Square CLO Ltd-SERIES 2021-2A CLASS B	1	10,000,000	10,018,330
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		31,012,800	31,014,971	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				06760Q-AQ-2	Barings Middle Market CL-BMM 2017-1A A2R	1	31,012,800	31,014,971
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,092,148	24,021,456	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				01750W-AC-3	Allegro CLO XIII Ltd-ALLEG 2021-1A	1	23,092,148	24,021,456
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,998,000	24,000,184	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				06760Q-AS-8	Barings Middle Market CL-BMM 2017-1A BR	1	23,998,000	24,000,184
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,983,136	14,745,803	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				30259A-AA-0	FDI Ltd-SERIES 17-3A CLASS A1	1	14,983,136	14,745,803
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,200,000	8,206,945	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				08186P-AN-3	Benefit Street Partners -BSP 2019-18A BR	1	8,200,000	8,206,945
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,011,740	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				94950J-AA-9	Wellfleet CLO Ltd-SERIES 18-1A CLASS A	1	20,000,000	20,011,740
57629*GHB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,735,236	7,742,998	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				15674E-AA-0	Cerberus Loan Funding XX-CERB 2021-1A A FLOATING COUPO	1	7,735,236	7,742,998
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	60,990,314	(28,528,562)	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared	90,314	(89,428,562)		46143#-MO-2	Invesco CMI Investments MM, LLC - TERM LN SER 2021-3	2	60,900,000	60,900,000
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		80,000,000	80,000,000	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	80,000,000	80,000,000
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,500,000	7,499,655	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				64132D-AL-2	Neuberger Berman Loan Advisers CLO 32 Ltd	1	7,500,000	7,499,655
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,951,558	12,951,895	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				55955A-AA-4	Magnetite XX Ltd	1	12,951,558	12,951,895
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,135,169	12,160,677	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				85816L-AA-6	Steele Creek Clo 2018-2 Ltd	1	12,135,169	12,160,677
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,498,163	4,492,765	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				87289B-AA-2	TOP DLF VIII 2018 CLO, LLC	1	4,498,163	4,492,765
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		29,925,000	29,558,149	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				Q3958#-AJ-5	GAIF Bond Issuer Pty Ltd	1	29,925,000	29,558,149
57629*GS4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		55,000,000	55,000,000	09/18/2023	06/16/2051	SOFR Replacement Swap - CME cleared				515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	55,000,000	55,000,000
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	16,686,915	(71,573,162)	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared	86,915	(88,176,465)		92915P-AK-1	Voya CLO 2014-1 Ltd-INGIM 2014-1A ABR2	1	16,600,000	16,603,303
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,006,189	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				64032V-AB-5	Nelnet Student Loan Trus-NSLT 2020-5A B	1	5,000,000	5,006,189
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,966,701	13,669,614	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				G7332#-AH-6	RRPF Engine Leasing Ltd Senior Secured	2	13,966,701	13,669,614
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,020,140	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				04941Y-AJ-8	Atlas Senior Loan Fund X-ATCLO 2018-11A B	1	10,000,000	10,020,140
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		26,815,000	26,837,015	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				55954Y-AJ-4	Magnetite XXVI Ltd-MAGNE 2020-26A A1R	1	26,815,000	26,837,015
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,900,000	11,910,424	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				40256G-AC-5	Gulf Stream Meridian-GSM 2021-6A A2	1	11,900,000	11,910,424
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		59,280,186	59,280,186	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				59576#-MM-5	Middle Market Credit Fund III SPV, LLC-Class A-1 Senior Secured Notes (Carlyle BDC Direct Lending)	1	59,280,186	59,280,186
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,500,000	7,502,588	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				94951D-AJ-2	Wellfleet CLO 2018-3 Ltd-SERIES 18-3A CLASS A2	1	7,500,000	7,502,588

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,609,465	11,609,465	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				70163H-AA-0	Parliament Funding I LLC-Variab	1	11,609,465	11,609,465
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,958,349	15,974,802	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				03331J-AA-0	Anchorage Capital CLO Lt-ANCHC	1	15,958,349	15,974,802
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		42,347,099	40,894,224	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				82340*-AB-3	2018-10A A1A	1	42,347,099	40,894,224
57629*GR6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,237,800	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				171512-AQ-9	Shepherds Flat Funding T Trust A-1-G Cer	1	50,000,000	50,237,800
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	125,000,000	25,045,359	6,015,998	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared	45,359	(19,009,102)		48253H-AN-5	Churchill Middle Market -CHMML	1	25,000,000	25,025,100
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		55,105,848	55,343,742	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared				05683H-AN-5	2019-1A AR	1	55,105,848	55,343,742
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,980,000	11,993,214	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared				149420-AE-1	KKR CLO 26 Ltd-KKR 26 AR	1	11,980,000	11,993,214
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	4,999,935	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared				88434H-AE-3	Bain Capital Credit CLO -BOC 2017-2A AR2	1	5,000,000	4,999,935
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,673,962	14,691,894	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared				24824T-AQ-3	CATSKILL PARK CLO LTD. -SERIES 17-1A CLASS A2	1	14,673,962	14,691,894
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,000,000	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared				04940H-AA-9	THL Credit Wind River 20-SERIES 18-2A CLASS A2	1	10,000,000	10,000,000
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	8,843,500	08/04/2023	11/04/2044	SOFR Replacement Swap - CME cleared				064227-AC-5	Denali Capital Clo XII L-DEN12	2	9,200,000	8,843,500
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	36,086,917	(52,953,201)	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared	86,917	(88,197,201)		39808C-AA-3	2016-1A A1R	2	36,000,000	35,244,000
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,900,000	25,924,735	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				14307P-AE-5	Atlas Securitized Products Funding 3 LP - Class A	1	25,900,000	25,924,735
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,600,000	11,623,328	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				88434H-AG-8	Bank of NT Butterfield &-SUBORDINATED	1	11,600,000	11,623,328
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,400,000	11,417,214	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				67097Q-AE-5	Gridiron Fdg LLC Sr Secd Nt	2	11,400,000	11,417,214
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,500,000	10,382,446	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				64034W-AD-7	Carlisle Global Market St-SERIES C17A CLASS A1BR	1	10,500,000	10,382,446
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,851,219	16,851,219	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				92917A-AA-4	THL Credit Wind River 20-WINDR	1	16,851,219	16,851,219
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,628,668	11,466,681	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				64034B-AB-7	OCF CLO 2017-14 Ltd-SERIES 17-14A CLASS A2	1	11,628,668	11,466,681
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		35,884,846	35,897,908	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				94949J-AA-3	Navient Student Loan Tru-NSLT 2019-7A B	1	35,884,846	35,897,908
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,125,000	6,129,079	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				94950C-AE-6	VOYA 2018-1A A1	1	6,125,000	6,129,079
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,100,000	11,104,873	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				12481Q-AE-5	Nelnet Student Loan Trus-NSLT 2018-5A B	1	11,100,000	11,104,873
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,700,000	2,702,827	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				14316W-AE-9	Wellfleet CLO 2018-2 Ltd-WELF 2018-2A A1	1	2,700,000	2,702,827
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		34,129,466	33,562,584	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				Q3534@-AB-5	Wellfleet CLO Ltd-WELF 2021-1A B	1	34,129,466	33,562,584
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,100,211	10,756,029	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				61744Y-AP-3	Obam 2018-5 Ltd-SERIES 18-5A CLASS B1	1	11,100,211	10,756,029
57629*G08	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		70,000,000	70,000,000	09/18/2023	06/17/2051	SOFR Replacement Swap - CME cleared				515095-MM-6	Carlisle Global Market St-CGMS 2021-7A B	1	70,000,000	70,000,000
57629*GPO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,000,000	141,924,749	42,375,348	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared	79,277	(88,963,313)		57542Z-A7-2	Australian Gas Networks Senior Note Ser	1	141,845,472	131,338,660
57629*GPO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		3,600,000	3,603,546	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared				61773K-AE-2	Morgan Stanley SENIOR UNSECURED ... Landmark Equity Partners XVI-D, LLC	1	3,600,000	3,603,546

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*GP0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		5,000,000	5,000,000	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			186858-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	5,000,000	5,000,000
57629*GP0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,000,000	25,093,625	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			236057-AA-3	Danby Park CLO Ltd-DANBY 2022-1A A1A	1	25,000,000	25,093,625
57629*GP0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,000,000	25,175,950	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			69700X-AA-3	Palmer Square CLO 2022-4-PLMRS 2022-4A A1A	1	25,000,000	25,175,950
57629*GP0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,000,000	25,699,075	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			06763R-AD-6	Barings Loan Partners CL-BABSN LP-1A D	2	25,000,000	25,699,075
57629*GP0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		24,563,921	25,000,000	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			06763B-AA-7	Barings CLO Ltd 2023-I-BABSN LP-2A A	1	24,563,921	25,000,000
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	350,000,000	262,372,061	137,596,307	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared	110,998	(124,664,756)	67098#-MM-7	CHA Credit Solutions Master Fund I SPV, L.P. - Fund I Revolver	1	262,261,063	262,261,063
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,006,125	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			94950J-AC-5	Wellfleet CLO Ltd-SERIES 18-1A CLASS B	1	5,000,000	5,006,125
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,150,000	10,151,076	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			48662N-AC-1	KAYNE CLO-KAYNE 2021-11A B	1	10,150,000	10,151,076
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,759,191	20,769,571	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			26245R-AA-8	Dryden 58 CLO Ltd-DRSLF 2018-58A A1	1	20,759,191	20,769,571
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		60,135,886	60,166,555	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			48661W-AA-6	KAYNE CLO-SERIES 19-3A CLASS A	1	60,135,886	60,166,555
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,006,630	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			55817A-AU-8	Madison Park Funding XXX-MDPK 2018-32A CR	1	10,000,000	10,006,630
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,750,000	2,749,060	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			04015U-AK-4	Ares XXXVIII CLO Ltd-SERIES 2015-38A CLASS CR	1	2,750,000	2,749,060
57629*GN5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		48,000,000	48,000,000	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	48,000,000	48,000,000
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	400,000,000	156,099,857	13,565,354	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared	126,849	(142,407,653)	46143#-MM-4	Invesco CMI Investments MM, LLC - Senior Secured Notes - Term Loan Series 2020-2	2	155,973,008	155,973,008
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,158,104	19,158,104	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			901399-MR-3	Twinbrook Capital Funding VIII DSPV, LLC - Term Loan	1	19,158,104	19,158,104
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,500,000	13,504,239	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			06760B-AE-2	BABSON CLO LTD-SERIES 17-1A CLASS B1	1	13,500,000	13,504,239
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,600,000	9,388,896	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			63941R-AC-4	NAVSL 2019-2A B	1	9,600,000	9,388,896
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,700,000	12,708,661	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			40436X-AE-7	HIGHBRIDGE LOAN MANAGEMEN-SERIES 2014 CLAS A2R	1	12,700,000	12,708,661
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,900,000	13,924,158	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			09628J-AN-1	BlueMountain CLO 2015-3-BLUEM 2015-3A A2R	1	13,900,000	13,924,158
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,400,000	7,403,900	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			55821T-AC-1	Madison Park Funding Ltd-SERIES 18-30A CLASS B	1	7,400,000	7,403,900
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,750,000	12,756,375	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			67706X-AG-8	CHA Credit Partners XIV -OAKC 2017-14A B FLOATING COUP	1	12,750,000	12,756,375
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,400,000	28,413,263	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			04017T-AC-3	Ares XXXIR CLO Ltd-SERIES 14-31RA CLASS A2	1	28,400,000	28,413,263
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		65,000,000	65,000,000	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	65,000,000	65,000,000
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,004,360	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			86271P-AE-5	Strata CLO II Ltd-STRTA 2021-1A B	1	10,000,000	10,004,360
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,400,000	17,408,248	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			06763B-AC-3	Babson CLO Ltd/Cayman Is-BABSN LP-2A B	1	17,400,000	17,408,248
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,400,000	17,414,564	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			06762T-AC-5	Babson CLO Ltd/Cayman Islands VCP RRL ABS II Ltd-VRRL 2022-1A A	1	17,400,000	17,414,564
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,025,094	14,200,720	09/18/2023	06/18/2051	SOFR Replacement Swap - OME cleared			91824X-AC-4		1	15,025,094	14,200,720

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GM7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,300,000	4,302,709	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared				40637L-AC-4	Halsey Point CLO Ltd-SERIES 2021-4A CLASS B	1	4,300,000	4,302,709
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	9,533,418	(61,659,168)	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared	63,418	(71,137,473)	74989H-AE-2	RR 12 Ltd-PRAM 2020-12A A2R2	1	9,470,000	9,478,305	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,350,000	9,357,274	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			87166R-DG-9	SYMP 2019-21A BR	1	9,350,000	9,357,274	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,213,800	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			65357L-AL-9	Niagara Park CLO Ltd-NIAPK 2019-1A BR	1	9,200,000	9,213,800	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,100,000	9,110,811	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			12551J-AQ-9	CIFC Funding 2017-IV Ltd-CIFC 2017-4A BR	1	9,100,000	9,110,811	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,100,000	9,118,892	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			42087D-AC-3	Hayfin US XII Ltd-HAYFN 2020-12A B1	1	9,100,000	9,118,892	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,000,000	9,019,575	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			38138L-AN-8	Goldentree Loan Managem-SERIES 2020-7A CLASS BR	1	9,000,000	9,019,575	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		74,332,149	77,360,925	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			316502-AA-1	Fidus Re Ltd-UNSECURED	1	74,332,149	77,360,925	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,984,057	14,537,643	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			66704J-AY-4	NORTHSTAR EDUCATION FINA-SERIES 2004-1 CLASS B1	1	16,984,057	14,537,643	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,071,776	21,071,776	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			75887X-AA-5	Regatta Funding Ltd.-REG11 2018-1A	1	21,071,776	21,071,776	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,541,527	7,543,737	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			449258-AA-0	10G US CLO 2018-1 LTD-SERIES 2018-1A CLASS A1	1	7,541,527	7,543,737	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,108,943	3,037,771	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			63942N-AC-2	Naviert Student Loan Tru-NAVSL 2021-1A B	1	3,108,943	3,037,771	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,200,000	11,203,506	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			17181T-AC-5	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A2	1	11,200,000	11,203,506	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,200,000	16,204,649	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			16409T-AC-3	CHEMANGO PARK CLO LTD-SERIES 18-1A CLASS A1B	1	16,200,000	16,204,649	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,914,676	1,883,522	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			05890M-AA-1	BANCO DE CREDITO E INVER-SENIOR UNSECURED	1	1,914,676	1,883,522	
57629*GL9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,830,000	13,275,417	09/18/2023	06/18/2051	SOFR Replacement Swap - CME cleared			53636C-AA-2	LiquiGlide Inc-SECURED	1	13,830,000	13,275,417	
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	125,000,000	60,036,696	26,997,990	08/07/2023	02/05/2045	SOFR Replacement Swap - CME cleared	36,696	(33,002,010)	04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	60,000,000	60,000,000	
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,200,000	15,206,126	08/07/2023	02/05/2045	SOFR Replacement Swap - CME cleared			87248K-AL-8	TICP CLO VI 2016-5 Ltd-TICP 2016-5A BR	1	15,200,000	15,206,126	
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		30,000,000	30,029,610	08/07/2023	02/05/2045	SOFR Replacement Swap - CME cleared			00119V-AN-9	AGL CLO 6 LTD-AGL 2020-6A AR	1	30,000,000	30,029,610	
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,400,000	11,414,045	08/07/2023	02/05/2045	SOFR Replacement Swap - CME cleared			38138D-AQ-9	Goldentree Loan Managem-GLM 2019-5A BR	1	11,400,000	11,414,045	
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,000,000	18,000,000	08/07/2023	02/05/2045	SOFR Replacement Swap - CME cleared			18685E-MM-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	18,000,000	18,000,000	
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,355,121	6,142,627	08/07/2023	02/05/2045	SOFR Replacement Swap - CME cleared			74340X-BL-4	Prologis LP-SENIOR UNSECURED	1	6,355,121	6,142,627	
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	300,000,000	290,080	(110,642,001)	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared	92,679	(110,839,390)	78449F-AC-5	SMB PRIVATE ED LN TR 201-SMB PRIVATE ED LN TR 2016-A NT	1	197,401	197,390	
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		186,155,309	186,155,309	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared			14308E-MM-7	Carlyle Aviation Runway PDP Fund LP - Revolving Promissary Note	1	186,155,309	186,155,309	
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		61,000,000	61,031,110	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared			48661W-AA-6	KAYNE CLO-SERIES 19-3A CLASS A	1	61,000,000	61,031,110	
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,000,000	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared			04940H-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	20,000,000	20,000,000	
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,200,000	4,196,086	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared			08180X-AU-6	Benefit Street Partners -BSP 2015-8A BR	1	4,200,000	4,196,086	

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,005,570	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				04965L-AE-8	TRIUM XIV LLC-ATRM 14A A2A	1	10,000,000	10,005,570
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,929,586	7,021,400	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				G5383*-AA-7	Last Mile Infrastructure Senior Secured Notes (Delayed Tranche)	2	8,929,586	7,021,400
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,880,545	6,870,473	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				X7760Y-AB-6	Sisu Industrial Energy Solutions Oy	2	6,880,545	6,870,473
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,971,872	5,768,774	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				512807-AU-2	Lam Research Corp-SENIOR UNSECURED	1	5,971,872	5,768,774
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,587,770	1,532,889	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				172967-LW-9	Citigroup Inc-SENIOR UNSECURED	1	1,587,770	1,532,889
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,103,587	1,024,498	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared					DP World Ltd-SENIOR UNSECURED	2	1,103,587	1,024,498
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,101,131	813,334	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				G6954*-AD-4	Peabody Trust Senior Secured Notes	1	1,101,131	813,334
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,175,510	697,185	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				G8160*-AB-4	UK Power Networks Servis Senior Unsecured Notes	1	1,175,510	697,185
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,001,617	906,661	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				636012-A*-5	National Express Group P Senior Note Series A	2	1,001,617	906,661
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		924,061	926,873	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				14316W-AA-7	Carlyle Global Market St-CGMS 2021-7A A1	1	924,061	926,873
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		922,652	601,810	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				G2564*-AA-5	Cross London Trains Limi Senior Secured Notes	2	922,652	601,810
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		796,950	812,030	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				06761K-AL-5	Barings CLO Ltd 2019-III-BABSN 2019-3A A1R	1	796,950	812,030
57629*GK1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		888,937	451,021	09/21/2023	06/21/2051	SOFR Replacement Swap - CME cleared				G0892*-AB-6	Bazalgette Tunnel Limite Senior Secured Notes	2	888,937	451,021
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	4,057,134	(71,748,015)	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared	64,570	(75,770,749)		008065-B*-4	AEROVIAS DE MEXICO SA USD TERM LN TICP CLO XIII Ltd-TICP 2019-13A BR	1	3,992,563	4,022,734
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,000,000	8,008,208	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				87250A-AL-5	BlueMountain Fuji US CLO-SERIES 2017-3A CLASS B	1	8,000,000	8,008,208
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,000,000	8,015,064	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				09628F-AE-9	Steele Creek CLO 2016-1 -SERIES 2016-1A CLASS AR	1	8,000,000	8,015,064
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		27,944,550	28,010,443	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				858102-AX-4	Steele Creek CLO 2016-1 -SERIES 2016-1A CLASS AR	1	27,944,550	28,010,443
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,005,570	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				04965L-AE-8	TRIUM XIV LLC-ATRM 14A A2A	1	10,000,000	10,005,570
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,000,000	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				87232A-AN-4	TCI-Flatiron CLO 2018-1 -TFLAT 2018-1A BR	1	10,000,000	10,000,000
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	9,913,240	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				77342M-AQ-9	Rockford Tower CLO 2019-SERIES 2019-1A CLASS B1R	1	10,000,000	9,913,240
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,530,480	1,709,514	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				429827-AK-4	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A10	1	1,530,480	1,709,514
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,238,069	1,055,807	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				429827-AP-3	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A14	1	1,238,069	1,055,807
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,195,000	1,193,829	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				429827-AB-4	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A2	1	1,195,000	1,193,829
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		456,748	457,843	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				83715A-AJ-8	SOUTH CAROLINA STUDENT L-SR UNSECURED	1	456,748	457,843
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,762,473	1,814,286	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				64033Q-AC-3	NELNET STUDENT LOAN TRUS-SERIES 2015-2A CLASS B	1	1,762,473	1,814,286
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		443,440	431,308	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				17284L-AB-0	CIT EDUCATION LOAN TRUST-SERIES 2007-1 CLASS B	1	443,440	431,308
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,275,000	8,270,043	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				056162-AS-9	Babson CLO Ltd 2015-I-BABSN 2015-IA CR	1	8,275,000	8,270,043
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		895,186	829,000	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				230000-AB-7	CULLEN/FROST CAP TR II-SUBORDINATED NOTE	2	895,186	829,000

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,000,000	13,009,217	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				75887X-AC-1	Regatta Funding Ltd.-REG11 2018-1A B	1	13,000,000	13,009,217
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,000,000	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	15,000,000	15,000,000
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,878,188	7,273,003	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				73052V-AC-9	Point Au Roche Park CLO -PARPK 2021-1A B1	1	6,878,188	7,273,003
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,730,605	7,010,178	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				27829P-AL-0	Eaton Vance CLO 2020-2 L-EATON 2020-2A AR	1	6,730,605	7,010,178
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,000,000	7,004,683	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				13887W-AL-4	Canyon Capital CLO 2019-CANVC 2019-2A BR	1	7,000,000	7,004,683
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,000,000	5,996,958	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				92919D-AE-8	Voya CLO Ltd-VOYA 2021-3A C	1	6,000,000	5,996,958
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,410,201	5,501,768	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				64132D-AJ-7	Neuberger Berman Loan Ad-NEUB 2019-32A AR	1	5,410,201	5,501,768
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,800,000	5,802,506	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				06762T-AE-1	Babson CLO Ltd/Cayman Islands HPS Loan Management 14-2-HLM 14A-19 BR	1	5,800,000	5,802,506
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,600,000	5,601,126	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				40437W-AS-7	Madison Park Funding XLV-MDPK 2020-46A CR	1	5,600,000	5,601,126
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,460,000	3,466,318	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				55822A-AQ-0	Goldentree Loan Managem-GLM 2021-10A C	1	3,460,000	3,466,318
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,450,000	3,460,640	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				38138T-AG-6	Landmark Equity Partners XVI-D, LLC	1	3,450,000	3,460,640
57629*GIW5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		37,000,000	37,000,000	09/22/2023	06/22/2051	SOFR Replacement Swap - CME cleared				515095-MM-6		1	37,000,000	37,000,000
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	300,000,000	1,708,401	(109,085,074)	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared	114,891	(110,690,626)		008065-B*-4	AEROVIAS DE MEXICO SA USD TERM LN ACCESS GROUP INC-SERIES 2005-B CLASS A3	1	1,593,510	1,605,552
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		588,556	582,270	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				00432C-CW-9		1	588,556	582,270
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		280,554,760	280,554,760	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				03113#-MM-3	AMF Levered II, LLC - Revolver	1	280,554,760	280,554,760
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,699,927	1,654,873	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				38021F-AB-7	GOAL CAPITAL FUNDING TRU-SERIES 2015-1 CLASS B	3	1,699,927	1,654,873
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,063,377	1,012,783	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				78442G-GM-2	SLM STUDENT LOAN TRUST 2003-4 LN BKD CTF CL B	3	1,063,377	1,012,783
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,422,925	1,313,756	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				28090A-AB-5	EDUCATIONAL SERVICES OF -2014-4 SERIES B	1	1,422,925	1,313,756
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,200,000	7,205,904	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				03767M-AE-8	Apidos CLO-SERIES 18-29A CLASS A1B	1	7,200,000	7,205,904
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,800,000	8,801,989	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				39729R-AC-2	Greenwood Park CLO Ltd-SERIES 18-1A CLASS B	1	8,800,000	8,801,989
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,500,000	10,536,750	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				13876J-AE-2	Canyon Capital CLO Ltd-CANVC 2012-1RA B	1	10,500,000	10,536,750
57629*GV7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,759,501	24,209,070	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				06761K-AL-5	Barings CLO Ltd 2019-III-BABSN 2019-3A A1R	1	23,759,501	24,209,070
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		200,000,000	7,726,593	(66,522,286)	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared	76,593	(73,777,153)	281397-AP-4	EDUCATION LOAN ASSET-BAC-SERIES 2003-2 CLASS 2A1	1	7,650,000	7,254,868
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,350,000	4,125,317	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				281397-AB-5	EDUCATION LOAN ASSET-BAC-SERIES 2003-1 CLASS A2	1	4,350,000	4,125,317
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,350,000	3,871,691	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				64031Q-CK-5	NELNET STUDENT LOAN TRUS-SERIES 2005-4 CLASS A4R1	3	4,350,000	3,871,691
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,950,000	2,797,629	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				281397-AQ-2	EDUCATION LOAN ASSET-BAC-SERIES 2003-2 CLASS 2A2	1	2,950,000	2,797,629
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		40,000,000	40,000,000	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				186856-MO-7	Cliffwater Corporate Lending Fund-Fourth Amendment Revolver	1	40,000,000	40,000,000
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,482,355	3,293,278	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				64031Q-CM-1	Nelnet Student Loan Trus-SERIES 2005-4 CLASS A4R2	3	3,482,355	3,293,278

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,147,754	3,921,450	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				83149E-AG-2	SLM STUDENT LN TR 2006-5-NOTE CL B	1	4,147,754	3,921,450
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,900,000	13,910,828	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				26251L-AE-4	Dryden 64 CLO Ltd-DRSLF 2018-64A B	1	13,900,000	13,910,828
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,000,000	27,090,790	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				64033E-AB-2	NSLT 2013-2A B	1	28,000,000	27,090,790
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,977,975	8,737,765	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				78442G-KP-0	SLM Student Loan Trust 2-SLMA 2003-14 B	1	8,977,975	8,737,765
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,600,000	12,232,142	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				64034X-AB-9	Nelnet Student Loan Trus-NSLT 2021-1A B	1	13,600,000	12,232,142
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,100,000	9,253,305	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				64034G-AB-6	Nelnet Student Loan Trus-NSLT 2020-1A B	1	10,100,000	9,253,305
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,524,594	6,396,473	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				64031C-AB-8	NELNET STUDENT LOAN TRUS-SERIES 2012-2A CLASS B	1	6,524,594	6,396,473
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,826,246	1,713,429	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				78442G-PS-9	SLM STUDENT LOAN TRUST-SERIES 2005-5 CLASS B	2	1,826,246	1,713,429
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,839,555	9,845,006	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				04623T-AA-3	ASSURANT CLO I LTD-ASRINT 2018-1A A	1	9,839,555	9,845,006
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,350,000	7,341,952	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				12551R-AC-2	CIFC Funding 2018-I Ltd-SERIES 18-1A CLASS B	1	7,350,000	7,341,952
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,000,000	13,000,637	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				21623P-AC-1	COOK PARK CLO LTD-COOK 2018-1A A2	1	13,000,000	13,000,637
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,886,178	3,797,213	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				63942N-AC-2	Navient Student Loan Tru-NAVSL 2021-1A B	1	3,886,178	3,797,213
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,400,000	8,404,242	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				48252Y-AE-9	KKR CLO 23 Ltd-KKR 23 B	1	8,400,000	8,404,242
57629*GU9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		26,948,000	26,948,000	09/28/2023	06/28/2051	SOFR Replacement Swap - CME cleared				67098#-MM-7	QHA Credit Solutions Master Fund I SPV, L.P. - Fund I Revolver	1	26,948,000	26,948,000
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	125,000,000	23,912,015	(5,044,376)	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared	31,646	(28,924,745)		901399-MY-8	Twin Brook Capital Funding XIII WSPV, LLC	1	23,880,369	23,880,369
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,553,150	10,502,166	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				83715R-AG-7	SOUTH CAROLINA STUDENT L-SERIES 2014-1 CLASS B	1	10,553,150	10,502,166
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,780,174	2,749,699	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				784420-AE-1	SLC STUDENT LOAN TRUST-SERIES 2005-1 CLASS B	1	2,780,174	2,749,699
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,396,074	2,368,246	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				78442G-OT-6	SLM STUDENT LOAN TRUST-SERIES 2005-8 CLASS B	1	2,396,074	2,368,246
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,300,000	19,333,775	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				15033E-AC-2	Cedar Funding IX CLO Ltd-SERIES 18-9A CLASS A2	1	19,300,000	19,333,775
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,645,000	2,337,183	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				63938E-AE-4	NAVIENT STUDENT LOAN TRU-SERIES 2014-1 CLASS B	1	2,645,000	2,337,183
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,609,487	2,506,712	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				64031A-AJ-5	NELNET STUDENT LOAN TRUS-SERIES 2006-3 CLASS B	1	2,609,487	2,506,712
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,384,607	4,493,710	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				63939L-AC-1	NAVIENT STUDENT LOAN TRU-SERIES 2015-3 CLASS B	1	4,384,607	4,493,710
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,906,265	10,312,144	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				64033J-AB-1	NELNET STUDENT LOAN TRUS-SERIES 2014-1A CLASS B	1	9,906,265	10,312,144
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,199,480	3,222,288	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				64033N-AB-2	NELNET STUDENT LOAN TRUS-SERIES 2014-5A CLASS B	1	3,199,480	3,222,288
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,179,012	1,165,021	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				78442G-LJ-3	SLM STUDENT LOAN TRUST-SERIES 2004-3 CLASS B	1	1,179,012	1,165,021
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,250,000	3,085,872	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				64032A-AB-1	NELNET STUDENT LOAN TRUS-SERIES 2012-1A CLASS B	1	3,250,000	3,085,872
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,824,523	1,772,220	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				64033L-AD-2	NELNET STUDENT LOAN TRUS-SERIES 2014-2A CLASS B	1	1,824,523	1,772,220
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,240,000	3,046,131	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				64033K-AB-8	NELNET STUDENT LOAN TRUS-SERIES 2014-3A CLASS B	1	3,240,000	3,046,131

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,750,000	14,756,756	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				03767M-AG-3	Apidos CLO-SERIES 18-29A CLASS A2	1	14,750,000	14,756,756
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,700,000	6,702,660	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				04015U-AJ-7	Ares XXXVIII CLO Ltd-SERIES 15-38A CLASS BR	1	6,700,000	6,702,660
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,000,000	3,002,811	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				48250R-BN-5	KKR CLO 12 Ltd-KKR 12 BR2	1	3,000,000	3,002,811
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,250,000	14,253,705	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				67112K-AB-5	OCF CLO Ltd-SERIES 18-15A CLASS A2	1	14,250,000	14,253,705
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,917,297	2,410,296	09/06/2023	12/06/2046	SOFR Replacement Swap - CME cleared				G92898-AB-1	University of East Angli Senior Unsecured Notes	1	3,917,297	2,410,296
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	70,058,755	6,876,639	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared	58,755	(63,123,361)		63001Z-MM-8	NSPC-L HOLDINGS II LP, - Revolver	1	70,000,000	70,000,000
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,815,000	9,827,956	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				05684L-AG-0	Bain Capital Credit CLO-BCC 2021-1A C	1	9,815,000	9,827,956
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,167,668	18,899,750	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				75972Y-AA-9	RENAISSANCE FINANCE-SR UNSECURED	1	19,167,668	18,899,750
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,500,000	9,506,090	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				33882G-AJ-7	Flatiron CLO 17 Ltd-FLAT 2017-1A CR	1	9,500,000	9,506,090
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,200,000	3,203,520	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				22615E-AE-0	Crestline Denali CLO Ltd-SERIES 2018-1A CLASS C	1	3,200,000	3,203,520
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,000,000	8,007,720	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				67104L-AG-2	QHA Loan Funding 2013-2 -QHAF 2013-2A CR	1	8,000,000	8,007,720
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,000,000	14,014,434	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				38862E-AB-0	GRIFFEN PARK CLO LTD-SERIES 17-1A CLASS B	1	14,000,000	14,014,434
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,534,121	29,113,021	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				06761T-AE-2	Barings Middle Market CI-BMM 2019-1A A2	1	28,534,121	29,113,021
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,600,000	23,601,109	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				542798-AC-7	Long Point Park CLO Ltd-LNGPT 2017-1A A1B	1	23,600,000	23,601,109
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,400,000	5,401,210	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				64130H-AQ-4	Neuberger Berman Loan Ad-SERIES 2017-24A CLASS CR	1	5,400,000	5,401,210
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,493,427	6,126,557	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				29365T-AF-1	Entergy Texas Inc-SECURED	1	6,493,427	6,126,557
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,935,060	9,539,340	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				90933J-AA-9	United Airlines 2016-2 C-UNTD AIR 16-2 B	3	9,935,060	9,539,340
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,829,180	10,100,000	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				05682L-AJ-6	Bain Capital Credit CLO -BCC 2019-2A AR	1	9,829,180	10,100,000
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		24,704,031	25,951,256	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				64135D-AA-3	Neuberger Berman Loan Ad-NEUB 2022-47A A	1	24,704,031	25,951,256
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,664,145	19,118,446	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				96467K-AA-7	Whitebox CLO Ltd-WBOX 2023-4A A1	1	18,664,145	19,118,446
57629*DMO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,400,000	5,420,099	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				06762V-AC-0	Barings Loan Partners CL-BABSN 2022-3A B	1	5,400,000	5,420,099
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,000,000	1,601,616	(61,347,817)	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared	58,691	(62,839,962)		031162-CJ-7	AMGEN INC-SENIOR UNSECURED	2	1,542,925	1,492,145
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		39,805,392	39,982,486	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				38179N-AB-0	Golub Capital Partners C-GOCAP 2024-71A A	1	39,805,392	39,982,486
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,549,832	2,646,148	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				456866-AM-4	INGERSOLL-RAND CO-DEBENTURE	2	2,549,832	2,646,148
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		119,942,747	119,991,204	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	119,942,747	119,991,204
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,436,661	10,573,376	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				042735-AK-6	Arrow Electronics Inc-DEBENTURE	2	10,436,661	10,573,376
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		3,000,000	3,004,425	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				83012Q-AE-4	Sixth Street CLO-SIXST 2021-20A C	1	3,000,000	3,004,425
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,815,348	12,527,037	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				06761M-AD-9	Barings Middle Market CL-BMM 2018-1A C	2	11,815,348	12,527,037

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,597,947	15,698,917	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				06760W-AJ-5	Barings Middle Market CL-BMM 2021-1A C	2	15,597,947	15,698,917
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		1,725,000	1,730,380	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				04018X-AJ-8	ARES CLO-ARES 2021-ALFA D	2	1,725,000	1,730,380
57629*DL2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		60,000,000	60,000,000	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				63001Z-MM-8	NSPC-L HOLDINGS II LP, - Revolver	1	60,000,000	60,000,000
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,000,000	1,076,849	(61,801,043)	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared	58,656	(62,688,816)		04352E-AA-3	Ascension Health-SENIOR UNSECURED	1	1,018,193	887,774
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,162,698	10,059,104	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				195869-AP-7	COLONIAL PIPELINE CO-SR UNSECURED DISCOVER FINANCIAL SVS-SENIOR	1	10,162,698	10,059,104
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,654,538	13,213,333	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				254709-AM-0	UNSECURED	2	13,654,538	13,213,333
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,500,000	2,507,500	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				50189P-AN-2	LGM LTD PARTNERSHIP-SERIES 25A CLASS C2	1	2,500,000	2,507,500
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		60,000,000	60,000,000	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				63001Z-MM-8	NSPC-L HOLDINGS II LP, - Revolver	1	60,000,000	60,000,000
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		73,500,000	73,673,313	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				858102-AX-4	Steele Creek CLO 2016-1-SERIES 2016-1A CLASS AR	1	73,500,000	73,673,313
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		47,930,917	39,978,168	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				341081-FG-7	FLORIDA POWER & LIGHT CO-SECURED BOND	1	47,930,917	39,978,168
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,800,000	8,798,953	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				05683L-AC-0	Bain Capital Credit CLO -BCC 2018-1A A2	1	8,800,000	8,798,953
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,211,446	7,860,367	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				224044-CG-0	COX COMMUNICATIONS INC-SENIOR UNSECURED	2	8,211,446	7,860,367
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,046,725	9,976,477	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				709599-AZ-7	Penske Truck Leasing Co -SENIOR UNSECURED	2	10,046,725	9,976,477
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,252,724	14,571,723	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				98389B-AV-2	Xcel Energy Inc-SENIOR UNSECURED	2	15,252,724	14,571,723
57629*DP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,333,125	13,333,125	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				186858-MM-9	Babson CLO Ltd 2013-I-SERIES 2013-IS CLASS BR	1	13,333,125	13,333,125
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,000,000	16,978,828	(46,930,252)	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared	58,733	(63,028,895)		00774M-AB-1	AERCAP IRELAND CAPITAL D-SENIOR UNSECURED	2	16,920,094	16,098,642
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		6,840,997	6,769,818	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				378272-AL-2	GLENORE FUNDING LLC-SR UNSECURED	2	6,840,997	6,769,818
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		50,251,411	30,922,625	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				191216-CY-4	Coca-Cola Co/The-SENIOR UNSECURED	1	50,251,411	30,922,625
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		20,495,718	18,961,629	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				09778P-AA-3	Bon Secours Mercy Health-SECURED	1	20,495,718	18,961,629
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,894,666	8,487,669	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				67103H-AF-4	O'REILLY AUTOMOTIVE INC-SENIOR UNSECURED	2	8,894,666	8,487,669
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		9,104,002	8,990,327	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				806851-AG-6	SCHLUMBERGER HLDGS CORP-SR UNSECURED	2	9,104,002	8,990,327
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		14,102,227	11,203,328	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				23338V-AE-6	DTE Electric Co-SECURED	1	14,102,227	11,203,328
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		70,556,779	60,342,260	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				458140-AK-6	INTEL CORP-SENIOR UNSECURED NOTE	1	70,556,779	60,342,260
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		22,310,462	21,759,679	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				11271L-AC-6	Brookfield Finance Inc-SENIOR UNSECURED	1	22,310,462	21,759,679
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		18,786,629	17,062,094	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				40728T-AA-1	HAMILTON COLLEGE-UNSECURED	1	18,786,629	17,062,094
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		32,327,509	31,713,531	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				756250-AE-9	Reckitt Benckiser Treasu-SENIOR UNSECURED	1	32,327,509	31,713,531
57629*DN8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		34,000,000	34,000,000	09/15/2023	09/15/2047	SOFR Replacement Swap - CME cleared				515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	34,000,000	34,000,000
593048*F5	Sovereign Bond of Mexico	2		20,000,000	25,722,139	03/20/2024	06/20/2029	5 Yr Credit Default Swap	45,247	(106,346)		912810-PP-8	US TREAS N/B-BOND	1	25,676,891	24,523,898
455780*F5	Sovereign Bond of Indonesia	2		40,000,000	36,448,818	03/20/2024	06/20/2029	5 Yr Credit Default Swap	467,794	383,527		912810-RV-2	US TREASURY N/B-UNSECURED	1	35,981,123	27,591,750

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
455780*F5	Sovereign Bond of Indonesia	2		14,900,338	11,256,212	03/20/2024	06/20/2029	5 Yr Credit Default Swap				912810-RU-4	US TREASURY N/B-UNSECURED	1	14,900,338	11,256,212
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	150,000,000	9,924,780	(24,237,580)	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared	24,780	(34,139,817)		69688X-AU-5	Palmer Square CLO 2014-1-SERIES 2014-1A CLASS A2PR	1	9,902,237	9,902,237
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,207,687	2,201,650	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				281378-AB-5	EDUCATIONAL SERVICES OF -SERIES 2015-1 CLASS B	1	2,207,687	2,201,650
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,909,560	2,936,296	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				281377-AB-9	EDUCATIONAL SERVICES OF -SERIES 2014-2 CLASS B	1	2,909,560	2,936,296
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		769,925	709,013	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				19458L-BD-1	COLLEGIATE FUNDING SERVI-SERIES 2005-A CLASS B	1	769,925	709,013
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,000,000	15,000,000	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				186858-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	15,000,000	15,000,000
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,975,207	8,567,110	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				708696-BY-4	Pennsylvania Electric Co-SENIOR UNSECURED	1	8,975,207	8,567,110
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		17,667,284	17,153,615	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				806851-AK-7	Schlumberger Holdings Co-SENIOR UNSECURED	2	17,667,284	17,153,615
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		18,207,700	17,957,232	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				10510K-AC-1	BRAMBLES USA INC-SR UNSECURED	2	18,207,700	17,957,232
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		32,124,693	27,633,172	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				438516-BB-1	HONEYWELL INTERNATIONAL - SENIORUNSECURED NOTE	1	32,124,693	27,633,172
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		24,491,359	21,702,015	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				438516-AT-3	HONEYWELL INTERNATIONAL -SENIOR NOTE	1	24,491,359	21,702,015
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,000,000	10,000,000	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				067936-AA-2	BABSN 2024-2A A1-BABSN 2024-2A A1	1	10,000,000	10,000,000
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,184,992	10,469,793	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				06761T-AJ-1	Barings Middle Market CI-BMM 2019-1A C	2	10,184,992	10,469,793
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,700,000	2,707,368	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				125550-AW-6	CIFC Funding 2020-I Ltd-CIFC 2020-1A DR	2	2,700,000	2,707,368
57629*ER8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,700,000	2,702,943	08/30/2023	08/30/2034	SOFPR Replacement Swap - CME cleared				06762J-AG-8	Babson CLO Ltd/Cayman Is-BABSN 2021-2A D	2	2,700,000	2,702,943
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,000,000	19,772,210	(48,750,381)	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared	39,103	(61,127,970)		693304-AY-3	PECO Energy Co-SECURED	1	19,733,107	12,377,589
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		3,326,628	3,231,238	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				579780-AN-7	MCCORMICK & CO INC/MID-SENIOR UNSECURED	2	3,326,628	3,231,238
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		12,098,732	11,256,071	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				90932K-AA-7	United Airlines 2019-2 C-UNTD AIR 19-2 B FIXED	3	12,098,732	11,256,071
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		42,394,585	42,172,274	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				22822V-AE-1	CROWN CASTLE INTL CORP-SENIOR UNSECURED	2	42,394,585	42,172,274
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		19,331,478	18,639,717	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				05369A-AA-9	Aviation Capital Group L-SENIOR UNSECURED	2	19,331,478	18,639,717
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		45,350,000	44,500,640	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				582688-B8-3	Metller-Toledo Internati Senior Note Ser	2	45,350,000	44,500,640
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		7,850,000	7,856,154	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				48661Q-AE-1	Kayne CLO 9 Ltd-SERIES 20-9A CLASS B1	1	7,850,000	7,856,154
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,000,000	15,012,390	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				04019L-AL-8	ARES LI CLO Ltd-ARES 2019-51A A1R	1	15,000,000	15,012,390
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,000,000	15,007,140	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				17180W-AC-9	CIFC Funding 2018-II Ltd-CIFC 2018-2A A2	1	15,000,000	15,007,140
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,750,000	11,744,313	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				55821A-AC-2	Madison Park Funding Ltd-SERIES 18-28A CLASS A2	1	11,750,000	11,744,313
57629*EY3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		21,000,000	21,000,000	08/30/2023	08/30/2039	SOFPR Replacement Swap - CME cleared				186858-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	21,000,000	21,000,000
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,000,000	977,080	(80,221,512)	08/30/2023	08/30/2049	SOFPR Replacement Swap - CME cleared	51,821	(81,123,779)		984851-AF-2	Yara International ASA-SENIOR UNSECURED	2	925,259	902,267

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,491,736	11,099,357	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			28178E-AD-0	Edwards Lifesciences Cor-SENIOR UNSECURED	2	11,491,736	11,099,357
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		26,176,005	25,498,168	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			361448-BC-6	GATX Corp-SENIOR UNSECURED	2	26,176,005	25,498,168
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,189,802	9,946,658	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			120568-AX-8	BUNGE LTD FINANCE CORP-SENIOR UNSECURED	2	10,189,802	9,946,658
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		27,007,915	26,355,221	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			00908P-AC-1	Air Canada 2017-1 Class -SECURED	2	27,007,915	26,355,221
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		5,249,055	5,118,402	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			171340-AN-2	CHURCH & DWIGHT CO INC-SENIOR UNSECURED	2	5,249,055	5,118,402
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		45,240,763	35,940,929	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			23338V-AE-6	DTE Electric Co-SECURED	1	45,240,763	35,940,929
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		48,000,000	44,444,533	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			57542Z-A7-2	MM Investment Holding Revolver Floating Line	2	48,000,000	44,444,533
57629*EU1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		40,000,000	40,000,000	08/30/2023	08/30/2049	SOFR Replacement Swap - CME cleared			067936-AA-2	BABSN 2024-2A A1-BABSN 2024-2A A1 FS Global Credit Opportu-FS GLOBAL CREDIT	1	40,000,000	40,000,000
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	306,000,000	75,099,637	(48,659,767)	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared	99,637	(122,212,267)	30290Y-AC-5		1	75,000,000	73,552,500
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,472,298	10,044,403	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			801060-AD-6	Sanofi-SENIOR UNSECURED	1	10,472,298	10,044,403
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,555,701	5,224,170	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			00108W-AH-3	AEP Texas Inc-SENIOR UNSECURED	2	5,555,701	5,224,170
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,500,000	12,994,189	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			892331-AD-1	Toyota Motor Corp-SENIOR UNSECURED	1	13,500,000	12,994,189
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		27,147,417	26,376,187	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			79466L-AF-1	salesforce.com Inc-SENIOR UNSECURED	1	27,147,417	26,376,187
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,017,229	7,694,371	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			369550-BC-1	Toyota Industries Corp-SENIOR UNSECURED	1	8,017,229	7,694,371
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,885,829	22,693,438	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			892330-AC-5	UNSECURED	1	23,885,829	22,693,438
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,936,396	19,966,301	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			50188G-AT-0	LCM XVIII LP-LCM 18A A1R	1	19,936,396	19,966,301
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		37,382,171	37,412,264	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			13876J-AC-6	Canyon Capital CLO Ltd-CANVC 2012-17A A	1	37,382,171	37,412,264
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,934,277	1,791,001	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			57542Z-A7-2	MM Investment Holding Revolver Floating Line	2	1,934,277	1,791,001
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,500,000	12,780,025	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			38179U-AH-1	GoLab Capital Partners C-GOCAP	2	12,500,000	12,780,025
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,010,309	12,341,016	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			44328H-AM-7	Highbridge Loan Managem-HLM 2023-17A D	2	12,010,309	12,341,016
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,000,000	12,219,972	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			936919-AC-3	Warwick Capital CLO 1 Lt-WWICK 2023-1A B	1	12,000,000	12,219,972
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,500,000	12,804,500	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			48255U-AS-3	KKR CLO 43 Ltd-KKR 2022-43A DR	2	12,500,000	12,804,500
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,500,000	12,512,913	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			67402R-AU-7	Oaktree CLO 2022-2 Ltd-OAKCL 2022-2A DR	2	12,500,000	12,512,913
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,500,000	11,736,854	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			037989-AJ-9	Apidos CLO XLIV Ltd-APID 2023-44A D	2	11,500,000	11,736,854
57629*FB2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,000,000	12,578,064	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			699917-AL-4	PARK BLUE CLO LTD-PKBLU 2023-4A D1	2	12,000,000	12,578,064
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	255,000,000	107,589,713	(1,416,241)	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared	82,825	(100,959,853)	57542Z-A7-2	MM Investment Holding Revolver Floating Line	2	107,506,888	99,543,612
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,970,060	7,612,954	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			06406R-AF-4	Bank of New York Mellon -SENIOR UNSECURED	1	7,970,060	7,612,954
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,612,678	10,679,604	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared			90932P-AA-6	United Airlines 2014-1 C-SECURED NOTE	1	10,612,678	10,679,604

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,858,053	12,427,394	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				606822-AV-6	Mitsubishi UFJ Financial-SENIOR UNSECURED	1	12,858,053	12,427,394
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,400,000	3,254,891	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				631005-BH-7	Narragansett Electric Co-SENIOR UNSECURED	1	3,400,000	3,254,891
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,304,626	2,238,469	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				532457-AZ-1	Eli Lilly & Co-SENIOR UNSECURED	1	2,304,626	2,238,469
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,155,358	8,008,021	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				09062X-AF-0	BIOMGEN INC-SR UNSECURED	2	8,155,358	8,008,021
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,015,058	2,988,963	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				46625H-JY-7	JPMorgan Chase & Co-SUBORDINATED NOTE	1	3,015,058	2,988,963
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,740,720	2,661,166	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				452308-AX-7	Illinois Tool Works Inc-SENIOR UNSECURED	1	2,740,720	2,661,166
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,376,258	6,026,879	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				313747-AY-3	Federal Realty Investment-SENIOR UNSECURED	2	6,376,258	6,026,879
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,512,771	18,942,275	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				477143-AJ-0	JetBlue 2019-1 Class A P-JETBLUE 19-1 A	2	19,512,771	18,942,275
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,697,145	4,497,648	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				670346-AP-0	Nucor Corp-SENIOR UNSECURED	1	4,697,145	4,497,648
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,756,058	1,688,855	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				784426-RY-4	SLM STUDENT LOAN TRUST-SERIES 2006-2 CLASS B	1	1,756,058	1,688,855
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		63,220,735	63,220,735	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				420860-AA-9	Kingsland VI Ltd-KING 2013-6A AR	1	63,220,735	63,220,735
57629*ES6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,000,000	1,000,000	09/05/2023	09/03/2049	SOFR Replacement Swap - CME cleared				067936-AA-2	BABSN 2024-2A A1-BABSN 2024-2A A1	1	1,000,000	1,000,000
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	61,507,180	22,568,274	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared	61,597	(38,906,496)		85816W-AC-8	Steele Creek CLO 2014-1 -SERIES 14-1RA CLASS A	1	61,445,583	61,474,770
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		96,204,712	97,246,909	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				125550-AN-6	CIFC Funding 2020-I Ltd-CIFC 2020-1A A1R	1	96,204,712	97,246,909
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,536,857	9,542,998	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				74988L-AA-2	ALM XIV Ltd-SERIES 14-14A CLASS A1R2	1	9,536,857	9,542,998
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,642,486	14,662,795	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				12550A-AT-3	CIFC Funding 2014-V Ltd-CIFC 2014-5A A1R2	1	14,642,486	14,662,795
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	14,999,625	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				88432U-AC-0	Wind River CLO Ltd-SERIES 18-3A CLASS A2	1	15,000,000	14,999,625
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,900,000	11,918,635	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				00190Y-BF-1	Ares XXVII CLO Ltd-ARES 2013-2A BR2	1	11,900,000	11,918,635
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,717,330	15,849,032	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				05875H-AA-1	Ballyrock CLO 2018-1 Ltd	1	15,717,330	15,849,032
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,826,086	9,826,086	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				186858-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	9,826,086	9,826,086
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,000,000	25,000,000	07/10/2023	01/08/2032	SOFR Replacement Swap - CME cleared				067936-AA-2	BABSN 2024-2A A1-BABSN 2024-2A A1	1	25,000,000	25,000,000
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	67,726,471	27,844,689	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared	50,566	(39,831,216)		12499F-MM-8	CCOF Onshore Co-Borrower Revolving Loan	1	67,675,905	67,675,905
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,077,388	17,971,316	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared				61744Y-AK-4	Morgan Stanley-SENIOR UNSECURED	1	19,077,388	17,971,316
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		150,700,715	152,000,000	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared				04940J-AC-7	Atlas Securitized Products Funding 1 LP - Revolver A2	1	150,700,715	152,000,000
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,733,870	15,012,660	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared				06761K-AL-5	Barings CLO Ltd 2019-III-BABSN 2019-3A A1R	1	14,733,870	15,012,660
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,180,105	10,572,070	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared				877409-AA-9	Taylor Wimpey PLC Senior Unsecured Notes	2	10,180,105	10,572,070
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,040,244	1,993,537	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared				63942N-AC-2	Navigent Student Loan Tru-NAVSL 2021-1A B	1	2,040,244	1,993,537

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*EW7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,719,210	1,365,804	07/10/2023	01/08/2035	SOFR Replacement Swap - CME cleared				23338V-AE-6	DTE Electric Co-SECURED	1	1,719,210	1,365,804
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	400,000,000	79,890,236	(68,901,823)	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared	130,707	(148,413,049)		A3158#-AC-3	Hofer Financial Services Senior Note Ser	1	79,759,529	79,511,226
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		83,900,574	80,909,078	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				87278*-AD-4	TPF Equity REIT Operatin Gtd Senior Note	1	83,900,574	80,909,078
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		55,000,000	55,182,985	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				87248T-AU-9	TICOP CLO VII Ltd-TICOP 2017-7A ASR2	1	55,000,000	55,182,985
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		66,729,546	62,798,063	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				G5147*-AD-8	Johnson Matthey PLC Senior Note Ser	1	66,729,546	62,798,063
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		68,421,170	66,981,040	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				Q0832*-AD-8	Australia Pacific Airpor Gtd Senior Note	2	68,421,170	66,981,040
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,750,000	6,761,603	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				00119Y-AC-7	AGL CLO Ltd-AGL 2021-10A B	1	6,750,000	6,761,603
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,025,000	12,038,432	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				06762J-AC-7	Babson CLO Ltd/Cayman Is-BABSN 2021-2A B	1	12,025,000	12,038,432
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,900,000	11,915,530	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				64133V-AC-1	Neuberger Berman CLO Ltd-NEUB 2021-44A B	1	11,900,000	11,915,530
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,100,000	6,106,655	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				05682E-AE-3	Bain Capital Credit CLO -BCC 2021-5A B	1	6,100,000	6,106,655
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,523,372	15,011,505	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				00119Y-AA-1	AGL CLO 10 Ltd-AGL 2021-10A A	1	14,523,372	15,011,505
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,965,088	11,655,503	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				03330P-AA-7	ANCHORAGE CREDIT FUNDING-SERIES 18-5A CLASS A	1	11,965,088	11,655,503
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,100,000	13,122,178	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				75009P-AC-1	Rad CLO 12 Ltd-RAD 2021-12A B	1	13,100,000	13,122,178
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,014,870	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				08179P-AE-2	Benefit Street Partners -BSP 2022-27A B1	1	10,000,000	10,014,870
57629*FA4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		43,000,000	43,000,000	08/11/2023	02/11/2050	SOFR Replacement Swap - CME cleared				51509S-MM-6	Landmark Equity Partners XVI-D, LLC	1	43,000,000	43,000,000
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	185,000,000	24,171,126	(45,815,810)	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared	55,334	(70,873,717)		06761M-AB-3	Barings Middle Market CL-BMM 2018-1A A2	1	24,115,792	25,057,908
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,500,000	5,505,154	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				55820B-AL-1	Madison Park Funding XLV-MDPK 2020-45A BR	1	5,500,000	5,505,154
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,005,955	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				38137Y-AS-0	Goldentree Loan Managemen-GLM 2019-4A BR	1	15,000,000	15,005,955
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,500,000	11,503,255	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				282523-AM-1	1828 CLO Ltd-GUGG4 2016-1A A1JR	1	11,500,000	11,503,255
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,000,000	8,004,184	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				14317R-AC-3	CARLYLE US CLO 2018-3 LT-CGMS 2018-3A A1B	1	8,000,000	8,004,184
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,700,000	7,709,240	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				67113G-AG-2	Oak Hill Credit Partners-OAKC 2020-5A B	1	7,700,000	7,709,240
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,214,131	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				64129J-BG-4	Neuberger Berman CLO XIV-NEUB 2013-14A BR2	1	9,200,000	9,214,131
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,700,000	14,710,775	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				55821L-AC-8	Madison Park Funding XIX-MDPK 2021-39A B	1	14,700,000	14,710,775
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,865,269	6,885,865	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				553205-AC-9	MP CLO III LTD-IMP3 2013-1A AR	1	6,865,269	6,885,865
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,500,000	9,520,957	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				88432U-AE-6	Wind River CLO Ltd-SERIES 18-3A CLASS B	1	9,500,000	9,520,957
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,164,968	3,203,472	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				05875H-AC-7	BALLYROCK CLO 2018-1 LTD-SERIES 2018-1A CLASS A2	1	3,164,968	3,203,472
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,000,000	20,004,480	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				74980P-AC-7	ALM Ltd/KY-SERIES 21-14A CLASS A2	1	20,000,000	20,004,480
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,700,000	7,648,048	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				97314H-AC-3	Wind River CLO Ltd-WINDR 2021-1A B1	1	7,700,000	7,648,048

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,000,000	7,003,717	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				36248M-AL-1	GT Loan Financing I Ltd -SERIES 2013-1A CLASS BR	1	7,000,000	7,003,717
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,100,000	9,988,294	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				83615P-AC-1	Sound Point Clo XXXI Ltd-SNDPT 2021-3A B	1	10,100,000	9,988,294
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	13,274,805	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				74986B-BB-6	RREEF America REIT II, I Senior Unsecured Notes	1	15,000,000	13,274,805
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,000,000	16,000,000	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				18685B-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	16,000,000	16,000,000
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	215,000,000	47,801,901	(34,836,707)	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared	64,355	(82,574,254)		50079B-MS-5	KREF Lending VII LLC - Term Loan Series 2019-7	1	47,737,547	47,737,547
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		24,300,000	24,320,193	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				70470M-AC-9	Peace Park CLO Ltd-PCEPK 2021-1A A	1	24,300,000	24,320,193
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		22,000,000	21,840,478	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				97315T-AE-2	THL Credit Wind River 20-WINDR 2017-1A BR	1	22,000,000	21,840,478
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		35,920,173	36,483,388	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				87246M-AS-1	TICP CLO VI 2016-2 Ltd-TICP 2016-6A AR2	1	35,920,173	36,483,388
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,000,000	21,004,788	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				55821C-AC-8	Atrium IX-ATRM 9A BR2	1	21,000,000	21,004,788
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,189,150	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				17181U-AA-6	CIFC Funding Ltd-CIFC 2024-2A A1 Flatiron CLO 18 Ltd-FLAT 2018-1A A	1	50,000,000	50,189,150
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,997,217	17,010,815	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				33883G-AA-5	Kingsland Ltd-SERIES 18-8A CLASS A	1	16,997,217	17,010,815
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,100,000	8,103,272	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				42086P-AC-7	Millennium Pipeline Comp Senior Secured	1	8,100,000	8,103,272
57629*FC0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,335,370	19,882,814	08/21/2023	02/20/2050	SOFR Replacement Swap - CME cleared				60040#-AB-8	Manchester United Football Club, Ltd Senior Secu	1	19,335,370	19,882,814
57629*EV9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	54,883,650	(48,151,108)	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared	90,531	(100,692,388)		G5791#-AA-9	MM Investment Holding Revolver Floating Line	2	54,793,119	52,541,280
57629*EV9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		65,000,000	60,185,304	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				57542Z-A7-2	Victoria Power Networks Gtd Senior Note	1	65,000,000	60,185,304
57629*EV9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		39,500,000	37,180,560	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				Q8396#-AK-7	Ascension Health-UNSECURED BOND	1	39,500,000	37,180,560
57629*EV9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		24,236,036	22,802,129	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				04351L-AA-8	Rad CLO 7 Ltd-RAD 2020-7A A1R	1	24,236,036	22,802,129
57629*EV9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		69,955,388	70,030,030	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				74936G-AA-6	Fonterra Co-operative Gr Senior Unsecured Notes	1	69,955,388	70,030,030
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	37,990,420	(64,092,846)	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared	90,420	(100,209,727)		Q3920#-AL-3	Envestra Victoria Pty Lt Senior Secured	1	37,900,000	36,116,881
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		42,600,298	43,857,365	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				Q3535#-AD-8	RREEF AMERICA REIT II INC SR UNSECD NT SER D	1	42,600,298	43,857,365
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,879,727	40,426,344	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				74986B-AV-3	Fonterra Co-operative Gr Senior Note	1	41,879,727	40,426,344
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		40,711,764	38,955,908	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				Q3920#-AG-4	TTX CO-SENIOR UNSECURED	1	40,711,764	38,955,908
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		31,927,206	26,551,479	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				87305Q-CM-1	KEYCORP STUDENT LOAN TRU-SERIES 2004-A CLASS 1B	1	31,927,206	26,551,479
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		585,271	565,726	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				49326B-BW-5	Ares XLIII CLO Ltd-SERIES 2017-43A CLASS CR	1	585,271	565,726
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,050,000	7,064,749	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				04016P-AN-8	Carlyle Global Market St-SERIES 18-4A CLASS A2	1	7,050,000	7,064,749
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,000,000	7,010,794	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				14315R-AE-1	ECOM Atlantic Inc - Guaranteed Series A Senior Note	1	7,000,000	7,010,794
57629*EZO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		45,500,000	43,687,826	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				27889#-AM-1		1	45,500,000	43,687,826

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*EZ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		112,500,000	112,540,838	08/25/2023	02/25/2050	SOFR Replacement Swap - CME cleared				04015G-AX-7	Ares XXXIV CLO Ltd-ARES 2015-2A AR3	1	112,500,000	112,540,838
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	41,590,074	(66,671,206)	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared	94,332	(104,969,202)		06235F-AN-2	Mirvac Group Finance Ltd Senior Note	1	41,495,742	38,297,996
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		55,000,000	55,182,985	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				87248T-AU-9	TICOP CLO VII Ltd-TICOP 2017-7A ASR2	1	55,000,000	55,182,985
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,900,075	39,068,830	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				Q3189*-AC-3	DEXUS Funds Management L Senior Note Ser	1	41,900,075	39,068,830
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		60,000,000	60,000,000	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				51509S-MM-6	Landmark Equity Partners XVII-D, LLC	1	60,000,000	60,000,000
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		31,100,000	29,760,212	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				74264*-AC-0	PRISA LHC Senior Note Ser	1	31,100,000	29,760,212
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,000,000	16,012,064	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				65023P-AQ-3	Newark BSL CLO 2 Ltd-NBCLO 2017-1A A2R	1	16,000,000	16,012,064
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,125,000	5,136,132	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				05683H-AS-4	Bain Capital Credit CLO -BCC 2017-2A CR2	1	5,125,000	5,136,132
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,100,000	5,101,540	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				06760B-AJ-1	BARBSON CLO LTD-SERIES 17-1A CLASS C	1	5,100,000	5,101,540
57629*FD8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		42,477,747	42,157,663	08/29/2023	02/26/2050	SOFR Replacement Swap - CME cleared				G2037*-AA-4	Chanel Limited Senior Note Series A	1	42,477,747	42,157,663
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	50,079,804	(75,706,698)	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared	79,804	(125,762,948)		143133-AA-4	CGMS 2021-6A A1	1	50,000,000	50,056,250
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,043,100	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				82670Q-AA-7	Signal Peak CLO 9 Ltd-SPEAK 2021-9A A1	1	50,000,000	50,043,100
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,100,000	13,113,100	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				03766G-AQ-5	Apidos CLO XXVI-APID 2017-26A A2R	1	13,100,000	13,113,100
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		60,464,651	60,983,418	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				25255D-AA-8	Diameter Capital CLO 1 L-DOLO 2021-1A A1A	1	60,464,651	60,983,418
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,600,000	13,602,584	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				97316L-AC-2	THL Credit Wind River 20-WINDR 2017-3A BR	1	13,600,000	13,602,584
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,525,000	11,538,876	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				48252U-AJ-6	KKR CLO 25 Ltd-SERIES 25 CLASS BR	1	11,525,000	11,538,876
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,000,000	11,016,203	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				06759J-AS-7	Barings CLO Ltd 2019-I-SERIES 2019-1A CLASS BR	1	11,000,000	11,016,203
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,209,200	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				38809G-AC-9	GREYWOLF CLO VI Ltd-GWOLF 2018-1A A2	1	9,200,000	9,209,200
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,000,000	11,000,803	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				13875M-AC-0	Canyon CLO 2021-3 Ltd-CANYC 2021-3A B	1	11,000,000	11,000,803
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,700,000	6,708,690	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				87249C-AC-5	TICOP CLO X LTD-SERIES 18-10A CLASS B	1	6,700,000	6,708,690
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,000,000	25,000,000	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				12499*-MM-8	COOF Onshore Co-Borrower Revolving Loan	1	25,000,000	25,000,000
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,035,443	6,205,332	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				87250R-AA-2	TICOP CLO XV Ltd-TICOP 2020-15A A	1	6,035,443	6,205,332
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,750,000	5,753,692	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				77340G-AL-5	Rockford Tower CLO 2017-2 Ltd	1	5,750,000	5,753,692
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,650,000	5,654,978	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				50200F-AG-4	LOM 26 Ltd-SERIES 26A CLASS C	1	5,650,000	5,654,978
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,236,842	14,256,774	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				87241F-AA-0	TCM Direct Lending Structured Solutions 2019 LLC - Class A Note	1	14,236,842	14,256,774
57629*FF3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,500,000	20,110,950	09/15/2023	06/15/2050	SOFR Replacement Swap - CME cleared				74264*-AE-6	PRISA LHC, LLC Senior Note Series C	1	21,500,000	20,110,950
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	300,000,000	56,536,842	(112,419,730)	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared	97,631	(152,499,077)		149123-CJ-8	Caterpillar Inc-SENIOR UNSECURED	1	56,439,211	40,079,346
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,506,298	31,538,470	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				91324P-EA-6	UnitedHealth Group Inc-SENIOR UNSECURED	1	50,506,298	31,538,470

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		46,539,779	33,346,313	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				143499-AB-7	Carnegie Institution of -UNSECURED	1	46,539,779	33,346,313
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		44,541,782	35,063,384	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				355611-AA-2	Fred Hutchinson Cancer R-UNSECURED	1	44,541,782	35,063,384
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,895,031	11,040,253	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				29157T-AD-8	Emory University-UNSECURED	1	12,895,031	11,040,253
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		86,000,000	86,000,000	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	86,000,000	86,000,000
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,700,000	6,700,503	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				14315D-AC-6	Carlyle Global Market St-CGMS 2021-3SA A2	1	6,700,000	6,700,503
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,703,075	16,685,913	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				26442T-AH-0	Duke University-UNSECURED	1	25,703,075	16,685,913
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,440,043	17,915,530	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				06654D-AC-1	Banner Health-UNSECURED	1	25,440,043	17,915,530
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,750,000	11,770,445	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				50200F-AE-9	LOM 26 Ltd-SERIES 26A CLASS B	1	11,750,000	11,770,445
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,600,000	11,613,096	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				64130H-AN-1	Neuberger Berman Loan Ad-NEUB 2017-24A BR FLOATING	1	11,600,000	11,613,096
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,325,000	10,325,031	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				05683E-AQ-5	Bain Capital Credit CLO -BCC 2020-2A BR	1	10,325,000	10,325,031
57629*FE6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		40,789,291	38,128,644	09/29/2023	06/29/2050	SOFR Replacement Swap - CME cleared				44919*-AC-2	1 585 Express, LLC Senior Secured Hardwood Funding LLC Senior Secured	1	40,789,291	38,128,644
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	23,071,891	(73,945,903)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	71,891	(95,580,830)		41242*-AY-8	QIC Finance (Shopping Ce Gtd Senior Note	1	23,000,000	21,634,927
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,159,181	21,788,453	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				Q7795*-AA-0	Wellman Park CLO Ltd-SERIES 21-1A CLASS B	1	23,159,181	21,788,453
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,700,000	7,704,012	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				949723-AC-4	American Airlines Group Senior Secured	1	7,700,000	7,704,012
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,678,985	6,301,623	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				02376*-AA-0	Austin Powder Holdings C Senior Note Ser	2	6,678,985	6,301,623
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,341,534	25,049,302	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				05237*-AF-1	Compass Group PLC Senior Note Ser WINGS Aviation 62696 USD Tranche A-1 Ln	1	25,341,534	25,049,302
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,204,957	19,734,739	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				G2044*-BA-2	CSLB Holdings, Inc. Gtd Senior Note	1	20,204,957	19,734,739
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,991,601	11,485,639	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				G9706*-AA-5	LOM LTD PARTNERSHIP-SERIES 15A CLASS CR	1	11,991,601	11,485,639
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		20,400,000	19,207,661	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				12656*-AK-8	Cargill Inc-SENIOR UNSECURED	1	20,400,000	19,207,661
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,950,000	8,952,721	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				50184N-AP-7	Goldentree Loan Managem-GLM 2017-1A B1R2	1	8,950,000	8,952,721
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,023,659	22,263,212	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				141781-BJ-2	Voya CLO 2018-4 Ltd-SERIES 18-4A CLASS BR	1	28,023,659	22,263,212
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,500,000	8,517,187	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				38136F-BJ-1	Bain Capital Credit CLO-BCC 2021-2A B	1	8,500,000	8,517,187
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,550,000	7,559,332	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				92917W-AY-4	KKR CLO 36 Ltd-KKR 36A B	1	7,550,000	7,559,332
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,850,000	13,865,567	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				05684R-AE-2	Benefit Street Partners -BSP 2019-17A BR	1	13,850,000	13,865,567
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,700,000	13,718,153	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				48255A-AC-2	Prime Property Fund LLC Senior Note Series U	2	13,700,000	13,718,153
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,500,000	5,502,860	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				08182B-AN-8	Landmark Equity Partners XVII-D, LLC	1	5,500,000	5,502,860
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,313,359	19,750,822	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				74170*-AW-9		2	21,313,359	19,750,822
57629*FJ5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		22,000,000	22,000,000	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				515095-MM-6		1	22,000,000	22,000,000

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	18,821,865	(77,126,335)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	71,865	(95,466,816)	74170*-AC-3	Prime Property Fund LLC Senior Note Ser	2	18,750,000	18,340,481
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,057,216	22,754,632	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			56081#-CA-6	Major League Baseball Tr Series 44 Term Note	1	23,057,216	22,754,632
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,700,000	17,678,232	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			41242*-AU-6	Hardwood Funding LLC Senior Note Ser	1	18,700,000	17,678,232
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,315,000	19,090,946	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			36198*-AA-4	GI Manager L.P. Senior Secured Notes	1	19,315,000	19,090,946
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,700,000	17,217,710	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			41242*-AX-0	Hardwood Funding LLC Senior Secured	1	17,700,000	17,217,710
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,256,744	16,819,735	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			68233J-A8-3	Oncor Electric Delivery SR SECD NT SER B	1	17,256,744	16,819,735
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		78,226,303	80,143,870	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			931142-CS-0	WAL-MART STORES INC-SENIOR NOTE	1	78,226,303	80,143,870
57629*FLO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		27,700,000	27,639,282	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			38176D-AJ-8	Goldub Capital Partners C-GOCAP 2015-26A A2R	1	27,700,000	27,639,282
57629*FIM8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	26,027,841	(70,218,213)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	71,914	(95,678,557)	00114*-AR-4	AEP Transmission Company Senior Note Ser	1	25,955,927	25,460,344
57629*FIM8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,700,000	25,337,630	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			G4622#-AB-5	Howard De Walden Estates Gtd Senior Note	1	25,700,000	25,337,630
57629*FIM8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,900,000	22,802,584	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			57169*-AU-1	Mars, Inc. Senior Note Ser	1	23,900,000	22,802,584
57629*FIM8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,750,000	21,518,798	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			06235#-AF-9	Mirvac Group Finance Ltd Gtd Senior Note	1	21,750,000	21,518,798
57629*FIM8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		136,000,000	125,926,175	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			57542Z-A7-2	MM Investment Holding Revolver Floating Line	2	136,000,000	125,926,175
57629*FIM8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,032,325	12,047,233	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			48250W-AG-0	KKR QLO 14 Ltd-KKR 14 AR	1	12,032,325	12,047,233
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	150,000,000	8,553,873	(63,618,948)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	53,873	(71,490,169)	74170*-AR-0	Prime Property Fund LLC Senior Note Ser	2	8,500,000	7,871,221
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,500,000	8,017,200	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			41242*-BF-8	Hardwood Funding LLC Senior Secured	1	8,500,000	8,017,200
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,278,655	9,126,369	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			479142-E8-6	Johnson Matthey PLC Series A Senior Notes	1	9,278,655	9,126,369
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,386,855	7,199,967	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			184692-B#-7	Clearbridge Energy MLP Fd Inc-Senior Secured	1	7,386,855	7,199,967
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,148,102	3,857,477	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05389L-AK-9	Avolon Aerospace Leasing Secured Note B7	1	4,148,102	3,857,477
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,941,097	7,884,890	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			92203#-AR-9	Vanguard Group, Inc. Senior Notes Series D	1	7,941,097	7,884,890
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,450,000	4,455,482	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			04018E-AE-1	Ares LIX QLO Ltd-ARES 2021-59A C1	1	4,450,000	4,455,482
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,866,226	3,606,486	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05389L-AH-6	Avolon Aerospace Leasing Secured Note B7	1	3,866,226	3,606,486
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		92,802,460	76,205,570	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			055451-AV-0	BHP Billiton Finance USA-SR UNSECURED	1	92,802,460	76,205,570
57629*FV6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		26,073,654	25,272,756	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			90226#-AA-3	2014 REPLACEMENT PWR STATUTORY TR SR SECD NT	1	26,073,654	25,272,756
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	150,000,000	29,821,547	(42,765,805)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	53,796	(71,160,341)	78403D-AR-1	SBA Tower Trust-ASSET BACKED	1	29,767,751	28,394,536
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,740,835	3,498,866	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05389L-AA-1	Avolon Aerospace Leasing Secured Note A3	1	3,740,835	3,498,866
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,440,000	6,415,689	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			74170*-AD-1	Prime Property Fund LLC Senior Note Ser	2	6,440,000	6,415,689
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,734,866	3,491,651	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05389L-AD-5	Avolon Aerospace Leasing Secured Note A3	1	3,734,866	3,491,651

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,762,345	4,507,812	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05400F-AE-1	Avolon Aerospace Funding Senior Secured	1	4,762,345	4,507,812
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,749,902	4,506,304	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05400F-AG-6	Avolon Aerospace Funding Senior Secured	1	4,749,902	4,506,304
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,500,805	6,494,954	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			184692-B*-1	Clearbridge Energy MLP Fd Inc-Senior Secured	1	6,500,805	6,494,954
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,436,917	4,201,521	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05400F-AC-5	Avolon Aerospace Funding Senior Secured	1	4,436,917	4,201,521
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,200,000	5,500,305	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			393154-L8-6	Green Mountain Power Cor First Mtg Bond	1	5,200,000	5,500,305
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		36,589,466	28,479,634	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			45866F-AH-7	Intercontinental Exchange-SENIOR UNSECURED	1	36,589,466	28,479,634
57629*FP1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		107,000,000	99,074,270	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			57542Z-A7-2	MM Investment Holding Revolver Floating Line	2	107,000,000	99,074,270
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	150,000,000	8,384,487	(62,874,477)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	53,804	(71,196,989)	90312*-AC-8	UNS Gas, Inc. Gtd Senior Note	1	8,330,683	8,322,512
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,348,673	6,153,299	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			479142-E8-4	Johnson Matthey PLC Series B Senior Notes	1	6,348,673	6,153,299
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,669,310	3,464,621	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05400F-AA-9	Avolon Aerospace Funding Senior Secured	1	3,669,310	3,464,621
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		139,924	139,282	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05577@-AN-0	BTMU Capital Corp. Equipment Note	1	139,924	139,282
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,109,764	19,598,259	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			06761T-AG-7	Barings Middle Market CI-BMM 2019-1A B	1	19,109,764	19,598,259
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,648,509	1,695,665	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			589331-AD-9	MERCK SHARP & DOHME CORP-DEBENTURE	1	1,648,509	1,695,665
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		929,491	908,003	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			05348E-AW-9	AVALONBAY COMMUNITIES IN-SR UNSECURED	1	929,491	908,003
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,500,000	4,186,562	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			74264*-AD-8	PRISA LHC LLC-SENIOR NOTE SER B	1	4,500,000	4,186,562
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,105,536	4,787,943	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			89236T-DR-3	Toyota Motor Credit Corp-SENIOR UNSECURED	1	5,105,536	4,787,943
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,870,527	3,808,211	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			18469P-A#-7	Clearbridge Energy MLP Op Fd Inc-Senior Secured	1	3,870,527	3,808,211
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,885,437	10,966,162	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			74980X-AC-0	ALM Ltd/KY-PRAM 2021-15A A2	1	10,885,437	10,966,162
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,767,648	3,696,439	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			18469Q-A#-5	Clearbridge Energy MLP Fd Inc-Senior Secured	1	3,767,648	3,696,439
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,250,000	9,270,507	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			64131T-AS-3	Neuberger Berman CLO XVI-SERIES 2017 CALSS 16SA	1	9,250,000	9,270,507
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,073,000	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			03329F-AN-4	Anchorage Capital CLO 15-ANCHC 2020-15A AR	1	50,000,000	50,073,000
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		21,000,000	21,011,487	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			97316D-AA-4	Wind River CLO Ltd-WINDR 2021-3A A	1	21,000,000	21,011,487
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,425,000	6,429,318	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			08180X-AQ-5	Benefit Street Partners -BSP 2015-8A A1BR	1	6,425,000	6,429,318
57629*F09	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,450,000	2,454,697	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared			04018X-AG-4	ARES CLO-ARES 2021-ALFA C	1	2,450,000	2,454,697
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	300,000,000	3,109,036	(155,435,825)	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared	111,954	(158,621,461)	244199-AW-5	Deere & Co-BOND	1	2,997,082	3,185,635
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,799,472	41,234,044	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared			873050-CB-5	TTX CO-UNSECURED NOTE	1	41,799,472	41,234,044
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		36,096,745	32,588,173	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared			594918-CB-8	MICROSOFT CORP-SENIOR UNSECURED	1	36,096,745	32,588,173
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		137,343,949	137,343,949	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared			50079@-MW-6	KREF Lending VII LLC - Term Loan Series 2022-11	1	137,343,949	137,343,949

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		69,519,000	70,009,665	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				46655H-AB-9	JCP Direct Lending CLO 2-JCPDL 2022-11 A	1	69,519,000	70,009,665
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		64,000,000	60,108,800	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				18685E-AA-0	Cliffwater Corporate Len Senior Secured Notes	1	64,000,000	60,108,800
57629*FT3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,000,000	11,000,000	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	11,000,000	11,000,000
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	150,000,000	13,904,503	(66,536,092)	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared	56,088	(79,785,692)		662325-BB-7	North Shore Gas Co. First Mtg Bond	1	13,848,415	13,249,600
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,462,130	14,142,010	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				G1108F-AG-3	British Land Company PLC Senior Note Ser	1	14,462,130	14,142,010
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,892,245	13,268,570	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				720186-F*-1	Piedmont Natural Gas Co. Senior Note Ser	2	13,892,245	13,268,570
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,600,000	11,327,412	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				41242*-AT-9	Hardwood Funding LLC Senior Note Ser	1	11,600,000	11,327,412
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,250,000	10,908,000	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				151515-XX-6	Bridge Investment Group Senior Secured Notes	1	11,250,000	10,908,000
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,685,106	10,253,197	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				74170*-AE-9	Prime Property Fund LLC Senior Note Ser	2	10,685,106	10,253,197
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	9,913,050	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				57169*-AT-4	Mars, Inc. Senior Note Ser	1	10,000,000	9,913,050
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		80,000,000	80,000,000	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				04940#-AA-9	Atlas Securitized Products Funding 3 LP - Class A	1	80,000,000	80,000,000
57629*FU0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,044,612	1,045,727	07/14/2023	07/14/2050	SOFR Replacement Swap - CME cleared				74936G-AA-6	Rad CLO 7 Ltd-RAD 2020-7A A1R	1	1,044,612	1,045,727
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	107,728,851	(16,018,845)	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared	89,826	(119,313,160)		11702B-AA-4	Brunswick Asset Financing LLC - Term A Loan	1	107,639,025	103,294,315
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		61,000,000	61,000,000	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				515095-MM-6	Landmark Equity Partners XVI-D, LLC	1	61,000,000	61,000,000
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		30,000,000	27,878,730	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				576292-YY-6	Barings Corporate Invest Convertible Not	1	30,000,000	27,878,730
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,830,433	28,136,607	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				68233J-A*-5	Oncor Electric Delivery & Senior Secured	1	28,830,433	28,136,607
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,200,000	12,327,572	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				Q1297#-AK-4	CSL Finance Pty Ltd Gtd Senior Note	1	13,200,000	12,327,572
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,295,316	40,778,213	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				20030N-AM-3	Comcast Corp-NOTE	1	41,295,316	40,778,213
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,045,000	2,046,391	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				056162-AQ-3	Babson CLO Ltd 2015-I-BABSN 2015-IA BR	1	2,045,000	2,046,391
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,900,000	17,825,063	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				03464A-A*-1	Angel Oak Financial Stra Senior Note Series A	1	18,900,000	17,825,063
57629*FK2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,595,673	19,049,173	09/05/2023	09/02/2050	SOFR Replacement Swap - CME cleared				05707#-AA-9	Baird Financial Corporat Senior Secured Notes	1	19,595,673	19,049,173
57629*HL8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,000,000	201,369,646	110,467,021	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared	69,646	(75,922,237)		57542Z-A7-2	MM Investment Holding Revolver Floating Line	2	201,300,000	186,389,258
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	150,000,000	6,702,347	(50,776,322)	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared	52,347	(57,439,954)		55954Y-AL-9	Magnetite XXVI Ltd-MAGNE 2020-26A BR	1	6,650,000	6,663,633
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,550,000	6,563,919	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				00190Y-BH-7	Ares XXVII CLO Ltd-ARES 2013-2A CR2	1	6,550,000	6,563,919
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,402,720	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				278300-AN-8	Eaton Vance CLO 2020-1 L-EATON 2020-1A CR	1	6,400,000	6,402,720
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,406,266	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				143133-AG-1	CGMS 2021-6A C	1	6,400,000	6,406,266
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,406,304	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				87168B-AG-5	SYMP 2021-28A C-SYMP 2021-28A C	1	6,400,000	6,406,304
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,409,011	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				12565E-AE-1	CIFC Funding Ltd-CIFC 2021-5A C	1	6,400,000	6,409,011

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,409,030	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				05685A-AJ-7	Bain Capital Credit CLO-BCC 2021-4A C	1	6,400,000	6,409,030
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,400,000	6,404,000	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				38136N-AU-0	Goldentree Loan Managem-GLM 2020-8A CR	1	6,400,000	6,404,000
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,100,000	6,113,701	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				00900L-AS-3	AIMCO CLO Series 2015-A-AIMCO 2015-AA CR2	1	6,100,000	6,113,701
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,050,000	6,053,025	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				05685A-AG-3	Bain Capital Credit CLO-BCC 2021-4A B	1	6,050,000	6,053,025
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,050,000	6,059,535	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				00119V-AQ-2	AGL CLO 6 LTD-AGL 2020-6A BR Canyon Capital CLO 2019-CANVC	1	6,050,000	6,059,535
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,700,000	5,701,431	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				13887T-AN-7	2019-1A BR OCP CLO 2020-19 Ltd-OCP 2020-19A BR	1	5,700,000	5,701,431
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,650,000	5,650,548	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				670881-AP-6		1	5,650,000	5,650,548
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,625,000	5,626,226	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				03766G-AS-1	Apidos CLO XXVI-APID 2017-26A BR	1	5,625,000	5,626,226
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,300,000	5,305,592	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				48253U-AC-0	KKR-SERIES 34A CLASS B BlueMountain CLO XXV Ltd-BLUEM	1	5,300,000	5,305,592
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,300,000	5,299,910	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				08627F-AQ-3	2019-25A BR	1	5,300,000	5,299,910
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,150,000	5,156,813	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				95023A-AC-4	Wellfleet CLO Ltd-WELF 2021-2A B	1	5,150,000	5,156,813
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,125,000	5,131,765	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				14317Y-AG-9	Carlyle Global Market St-SERIES 21-5A CLASS C	1	5,125,000	5,131,765
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,600,000	4,612,471	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				67110N-AP-0	QHA Credit Partners XIII-OAKC 2016-13A BR	1	4,600,000	4,612,471
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,500,000	4,504,239	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				73052V-AG-0	Point Au Roche Park CLO -PARPK 2021-1A C	1	4,500,000	4,504,239
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,500,000	4,503,375	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				33835N-AE-1	ASSURANT CLO LTD-MORGN 2018-3A CR Wind River CLO Ltd-WINDR 2021-3A C	1	4,500,000	4,503,375
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,500,000	4,500,396	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				97316D-AG-1		1	4,500,000	4,500,396
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,400,000	4,408,026	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				48255A-AE-8	KKR CLO 36 Ltd-KKR 36A C	1	4,400,000	4,408,026
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,300,000	4,305,801	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				12555Q-AU-0	CIFC Funding 2020-I Ltd-CIFC 2020-1A CR	1	4,300,000	4,305,801
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,000,000	5,006,125	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				94950J-AC-5	Wellfleet CLO Ltd-SERIES 18-1A CLASS B	1	5,000,000	5,006,125
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,000,000	20,362,500	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				886758-AB-3	Tiger Global Management Senior Note Series B	1	25,000,000	20,362,500
57629*H07	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,000,000	16,000,000	07/10/2023	07/08/2051	SOFR Replacement Swap - CME cleared				186858-MN-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	16,000,000	16,000,000
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	350,000,000	9,158,628	(127,745,918)	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared	104,790	(136,827,305)		14316W-AA-7	Carlyle Global Market St-CGMS 2021-7A A1	1	9,053,838	9,081,387
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		48,500,000	48,554,029	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				12547L-AL-2	CIFC Funding 2020-II Ltd-CIFC 2020-2A AR	1	48,500,000	48,554,029
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		45,100,000	45,123,272	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				05876L-AA-1	Ballyrock CDO Ltd-BALLY 2021-17A A1A	1	45,100,000	45,123,272
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,700,000	13,729,880	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				87168B-AE-0	SYMP-SYMP 2021-28A B	1	13,700,000	13,729,880
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,700,000	13,700,891	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				97316D-AC-0	Wind River CLO Ltd-WINDR 2021-3A B1	1	13,700,000	13,700,891
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,225,677	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				13876G-AL-2	Canyon Capital CLO 2017-CANVC 2017-1A BR	1	9,200,000	9,225,677

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Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,200,110	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				03328W-AU-2	Anchorage Capital CLO 9 -ANCHC 2016-9A BR2	1	9,200,000	9,200,110
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,205,612	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				14316W-AC-3	Carlyle Global Market St-CGMS 2021-7A A2	1	9,200,000	9,205,612
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,204,664	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				12547L-AQ-1	CIFC Funding 2020-II Ltd-CIFC 2020-2A BR	1	9,200,000	9,204,664
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,207,259	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				04018X-AE-9	ARES CLO-ARES 2021-ALFA B	1	9,200,000	9,207,259
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,206,688	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				25255L-AC-6	Diameter Capital Clo 2 L-DOLO 2021-2A A2	1	9,200,000	9,206,688
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,205,888	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				12555Q-AS-5	CIFC Funding 2020-I Ltd-CIFC 2020-1A BR	1	9,200,000	9,205,888
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,200,000	9,213,561	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				48253H-AQ-8	KKR CLO 26 Ltd-KKR 26 BR	1	9,200,000	9,213,561
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,100,000	9,002,858	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				86271P-AG-0	Strata CLO II Ltd-STRTA 2021-1A C	1	9,100,000	9,002,858
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,725,000	8,740,688	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				38136N-AS-5	Goldentree Loan Managem-GLM 2020-8A BR	1	8,725,000	8,740,688
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		16,886,993	17,419,975	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				13876N-AN-3	Canyon CLO 2020-2 Ltd-CANYC 2020-2A BR	1	16,886,993	17,419,975
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,800,000	7,805,912	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				143133-AE-6	CGMS 2021-6A B-CGMS 2021-6A B	1	7,800,000	7,805,912
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,375,000	7,381,033	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				13877P-AC-1	CANYC-2021-4A B	1	7,375,000	7,381,033
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,300,000	7,308,753	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				13875M-AE-6	Canyon CLO 2021-3 Ltd-CANYC 2021-3A C	1	7,300,000	7,308,753
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,300,000	7,313,702	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				12551J-AN-6	CIFC Funding 2017-IV Ltd-CIFC 2017-4A A2R	1	7,300,000	7,313,702
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,200,000	7,185,600	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				97315V-AE-7	Wind River CLO Ltd-WINDR 2021-2A B	1	7,200,000	7,185,600
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,100,000	7,109,400	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				04019L-AN-4	ARES LI CLO Ltd-ARES 2019-51A BR	1	7,100,000	7,109,400
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,040,000	7,044,435	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				03328W-AU-8	Anchorage Capital CLO 9 -ANCHC 2016-9A CR2	1	7,040,000	7,044,435
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,000,000	6,989,934	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				61773K-AC-6	Morgan Stanley Eaton Van-MISEV 2021-1A B	1	7,000,000	6,989,934
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,750,000	6,751,499	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				50204A-AE-6	LOM LP-LOM 32A B	1	6,750,000	6,751,499
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,007,515	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				48251M-AS-5	KKR CLO 15 Ltd-KKR 15 A2R	1	15,000,000	15,007,515
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,500,000	9,504,750	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				48252W-AC-7	KKR CLO LTD 22-SERIES 22A CLASS B	1	9,500,000	9,504,750
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,860,356	8,161,108	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				86209*-AA-6	Stonehenge OH Rural Fund II LLC Series 2021B-1	1	8,860,356	8,161,108
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,217,974	7,354,285	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				86208*-AA-3	Stonehenge Cap Fund Conn VI Series 2021B-1	1	8,217,974	7,354,285
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,666,667	6,724,001	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				87289B-AB-0	TCP DLF VIII 2018 CLO, LLC - Class A-2 Secured Floating Rate Note	1	6,666,667	6,724,001
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		6,063,868	6,115,775	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				46655H-AH-6	JCP Direct Lending CLO 2-JCPDL 2022-11 D	2	6,063,868	6,115,775
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,547,901	4,567,539	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				46655H-AF-0	JCP Direct Lending CLO 2-JCPDL 2022-11 C	1	4,547,901	4,567,539
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,390,224	8,464,226	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				46655H-AD-5	JCP Direct Lending CLO 2-JCPDL 2022-11 B	1	8,390,224	8,464,226

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		1,160,311	1,117,092	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				86208-AA-5	Stonehenge Capital Fund South Carolina IV, LLC Senior Structured Notes	1	1,160,311	1,117,092
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,666,667	2,728,000	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				87289B-AD-6	TCP DLF VIII 2018 CLO, LLC - Class B Secured Floating Rate Note	1	2,666,667	2,728,000
57629*HC8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,222,223	2,254,667	07/10/2023	07/09/2051	SOFR Replacement Swap - CME cleared				87289B-AE-4	TCP DLF VIII 2018 CLO, LLC - Class C Secured Floating Rate Note	1	2,222,223	2,254,667
57629*HM6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,000,000	60,052,201	(20,043,588)	07/12/2023	07/12/2051	SOFR Replacement Swap - CME cleared	52,201	(80,496,348)		06763R-AA-2	Barings Loan Partners CL-BABSN LP-1A A	1	60,000,000	60,452,760
57629*HM6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		50,000,000	50,545,800	07/12/2023	07/12/2051	SOFR Replacement Swap - CME cleared				06763R-AB-0	Barings Loan Partners CL-BABSN LP-1A B	1	50,000,000	50,545,800
57629*HM6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		50,000,000	50,474,700	07/12/2023	07/12/2051	SOFR Replacement Swap - CME cleared				06763K-AC-3	Barings Middle Market CL-BMM 2023-1A A1	1	50,000,000	50,474,700
57629*HM6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		50,000,000	50,000,000	07/12/2023	07/12/2051	SOFR Replacement Swap - CME cleared				83004L-AN-5	610 Funding CLO 2 Ltd-SIX10 2016-2RA A1R3	1	50,000,000	50,000,000
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	350,000,000	50,117,148	(94,152,257)	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared	117,148	(144,118,007)		83615P-AA-5	Sound Point Clo XXXI Ltd-SNDPT 2021-3A A	1	50,000,000	49,965,750
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,059,200	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				95023A-AA-8	Wellfleet CLO Ltd-WELF 2021-2A A1	1	50,000,000	50,059,200
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,027,850	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				69702E-AA-3	Palmer Square CLO Ltd-PLMRS 2021-4A A	1	50,000,000	50,027,850
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,075,600	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				03328J-AA-5	Anchorage Capital CLO 19-ANCHC 2021-19A A	1	50,000,000	50,075,600
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,069,850	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				42088A-AA-2	Hayfin US XII Ltd-HAYFN 2021-14A A1	1	50,000,000	50,069,850
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		59,979,766	60,408,456	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				87168B-AC-4	SYMP-SYMP 2021-28A A	1	59,979,766	60,408,456
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,054,150	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				67110N-AM-7	OHA Credit Partners XIII-OAKC 2016-13A AR	1	50,000,000	50,054,150
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,312,500	14,319,756	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				70470M-AE-5	Peace Park CLO Ltd-PCEPK 2021-1A B1	1	14,312,500	14,319,756
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,090,000	14,090,000	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				55822A-AN-7	Madison Park Funding XLV-MDPK 2020-46A B1R	1	14,090,000	14,090,000
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,023,110	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				13876R-AE-4	Canyon CLO 2020-3 Ltd-CANYC 2020-3A B	1	10,000,000	10,023,110
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,000,000	10,000,720	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				13876X-AG-6	Canyon Capital CLO Ltd-CANYC 2021-2A B1	1	10,000,000	10,000,720
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		928,682	928,598	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				94949R-AW-7	Wellfleet CLO 2016-1 Ltd-WELF 2016-1A CR	1	928,682	928,598
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,881,307	4,007,124	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				25255L-AA-0	Diameter Capital Clo 2 L-DQLO 2021-2A A1	1	3,881,307	4,007,124
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		4,050,000	4,052,438	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				00120B-AE-0	AGL CLO Ltd-AGL 2021-12A B	1	4,050,000	4,052,438
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,885,000	3,890,730	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				83012K-AE-7	SIXST-SERIES 2021-19A CLASS C	1	3,885,000	3,890,730
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,750,000	3,755,644	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				74980Q-AE-1	ALM Ltd/KY-RRAM 2021-17A A2	1	3,750,000	3,755,644
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,600,000	3,608,024	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				67110N-AT-2	OHA Credit Partners XIII-OAKC 2016-13A CR	1	3,600,000	3,608,024
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,600,000	3,604,212	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				92918Q-AG-5	Voya CLO Ltd-VOYA 2021-1A C	1	3,600,000	3,604,212
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,525,000	3,491,421	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				94950A-AS-9	Wellfleet CLO 2020-2 Ltd-WELF 2020-2A CR	1	3,525,000	3,491,421
57629*HBO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,500,000	3,504,540	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				55821L-AE-4	Madison Park Funding XXX-MDPK 2021-39A C	1	3,500,000	3,504,540

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*H0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,500,000	3,504,407	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				13876N-AS-2	Canyon CLO 2020-2 Ltd-CANYC 2020-2A CR	1	3,500,000	3,504,407
57629*H0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,000,000	3,001,701	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				05684A-AU-3	Bain Capital Credit Clo -BCC 2019-4A CR	1	3,000,000	3,001,701
57629*H0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,800,000	2,803,189	07/21/2023	07/21/2051	SOFR Replacement Swap - CME cleared				27829P-AS-5	Eaton Vance CLO 2020-2 L-EATON 2020-2A CR	1	2,800,000	2,803,189
57629*H4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,000,000	196,051,414	117,288,625	08/09/2023	08/09/2051	SOFR Replacement Swap - CME cleared	51,414	(80,190,392)		06763R-AA-2	Barings Loan Partners CL-BABSN LP-1A A	1	196,000,000	197,479,016
57629*H4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		9,744,570	10,008,260	08/09/2023	08/09/2051	SOFR Replacement Swap - CME cleared				67592X-AC-4	Octagon 57 Ltd-OCT57 2021-1A A	1	9,744,570	10,008,260
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	300,000,000	332,802,535	134,986,236	08/09/2023	08/09/2051	SOFR Replacement Swap - CME cleared	77,093	(120,160,808)		912810-RV-2	US TREASURY N/B-UNSECURED NVT Capital Structured Note I, LLC - Class A Secured Float Rate Revolving Loan	1	332,725,443	255,147,044
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		21,470,023	21,470,023	08/09/2023	08/09/2051	SOFR Replacement Swap - CME cleared				67080B-MM-6	GoIub Capital Partners C-GBSL 2023-70A B	1	21,470,023	21,470,023
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		6,000,000	6,095,424	08/09/2023	08/09/2051	SOFR Replacement Swap - CME cleared				381939-AC-1	US TREASURY N/B-UNSECURED PORED II HOLDING I LLC, PORED II HOLDING I OFFSHORE LP and PORED II HOLDCO ARGUS S.A R.L.-Term Loan Series 2022-3	1	6,000,000	6,095,424
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,000,000	150,071,003	15,856,358	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared	74,266	(97,456,171)		912810-RU-4	QHA Credit Solutions Master Fund I SPV, L.P. - Fund I Revolver United States Treasury N-UNSECURED	1	149,996,737	113,312,529
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		9,050,000	9,050,000	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				68324Z-MM-3	Millennium Pipeline Comp Senior Secured	1	9,050,000	9,050,000
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,907,026	8,907,026	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				67098#-MM-7	TREZ CAPITAL MANHATTAN BRIDGE LP - Secured Term Loan Facility - Series 2022-3	1	8,907,026	8,907,026
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		7,466,114	5,996,152	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				912810-TG-3	SSG CREDIT STRATEGIES VII ICAV - Senior Secured Revolving Loan Facility	1	7,466,114	5,996,152
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,841,511	2,921,963	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				60040#-AB-8	CARLYLE US CLO 2019-2 LT-CGMS 2019-2A A1R	1	2,841,511	2,921,963
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,288,320	2,288,320	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				89532Z-MM-9	Diameter Capital CLO 4 L-DLCO 2022-4A A1R	1	2,288,320	2,288,320
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		70,498,585	70,498,585	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				78466Z-MM-4	Rad CLO 18 Ltd-RAD 2023-18A A1	1	70,498,585	70,498,585
57629*H9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,797,678	26,315,846	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				14316E-AL-3	ABPCI Direct Lending Fun-ABPCI 2023-14A A	1	25,797,678	26,315,846
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,000,000	50,059,398	(27,455,734)	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared	59,398	(77,898,384)		25255N-AQ-1	Elmwood CLO II Ltd-ELMW2 2019-2A AR	1	50,000,000	50,442,650
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		29,397,874	30,255,570	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				75009A-AJ-9	Sofi Alternative Trust 2-SERIES 19-C CLASS PT	1	29,397,874	30,255,570
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		26,600,000	26,771,996	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				00091Y-AA-3	Allegany Park CLO Ltd-ALLPK 2019-1A AR	1	26,600,000	26,771,996
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		32,988,382	34,260,089	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				29001L-AL-5	Sound Point CLO XXXIII L-SNDPT 2022-1A A	1	32,988,382	34,260,089
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		24,955,361	24,037,610	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				83406J-AA-2	US TREASURY N/B-BOND PORED II HOLDING I LLC, PORED II HOLDING I OFFSHORE LP and PORED II HOLDCO ARGUS S.A R.L.-Term Loan Series 2022-4	1	24,955,361	24,037,610
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		23,832,643	25,018,600	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				017154-AL-9		1	23,832,643	25,018,600
57629*H7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		23,704,802	24,960,925	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				83616K-AA-5		1	23,704,802	24,960,925
57629*HJ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	300,000,000	255,865,945	137,038,527	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared	89,141	(117,047,236)		912810-QK-7		1	255,776,804	254,085,762
57629*HJ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		60,956,072	60,956,072	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				68324Z-MQ-1		1	60,956,072	60,956,072

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*HJ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		4,994,325	4,994,325	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				500798-MM-6	KREF Lending VII LLC - Term Loan Series 2022-11	1	4,994,325	4,994,325
57629*HK0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,000,000	118,197,505	17,148,968	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared	74,422	(98,163,301)		53950U-AA-0	Loan Asset Issuer LLC - Series 2023 NG-1A Class A Asset Backed Notes	1	118,123,083	115,312,269
57629*HK0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		77,952,536	80,462,815	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				53946H-AA-6	Loan Asset Issuer LLC - Series 2022 NG-2 Class A Asset Backed Notes	1	77,952,536	80,462,815
57629*HK0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		70,000,000	70,000,000	08/10/2023	08/10/2051	SOFR Replacement Swap - CME cleared				83004L-AN-5	610 Funding CLO 2 Ltd-SIX10 2016-2BA A1R3	1	70,000,000	70,000,000
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	41,375,798	(40,090,788)	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared	50,798	(81,415,788)		68324Z-MN-3	PCRED II HOLDING I LLC, PCRED II HOLDING I OFFSHORE LP and PCRED II HOLDCO ARGUS S.A R.L., -Term Loan Series 2022-3	1	41,325,000	41,325,000
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,050,496	41,050,496	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared				68324Z-MM-5	PCRED II HOLDING I LLC, PCRED II HOLDING I OFFSHORE LP and PCRED II HOLDCO ARGUS S.A R.L., -Term Loan Series 2022-1	1	41,050,496	41,050,496
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		23,728,070	24,012,807	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared				87241F-AB-8	TCW Direct Lending Structured Solutions 2019 LLC - Class B Note	2	23,728,070	24,012,807
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		26,990,789	26,990,789	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared				67080B-MM-6	NXT Capital Structured Note I, LLC - Class A Secured Float Rate Revolving Loan	1	26,990,789	26,990,789
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		30,640,000	30,640,000	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared				70212Z-MM-8	PARTNERS GROUP PRIVATE EQUITY II, LLC - Senior Secured Revolving Facility	1	30,640,000	30,640,000
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,984,602	15,000,000	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared				00259H-MM-3	ASF VIII SUNTORI, L.P and ASF VIII B SUNTORI, L.P.-Senior Secured European Term Loan	1	14,984,602	15,000,000
57629*LG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		27,786,629	26,396,129	08/23/2023	08/23/2051	SOFR Replacement Swap - CME cleared				22822R-BH-2	Crown Castle Towers LLC-SECURED CARLYLE SECURED LENDING III SPV, - Senior Secured Loan	1	27,786,629	26,396,129
57629*MR9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	184,450,120	64,640,000	71,359,303	04/25/2024	04/29/2025	TRS Bond Index		6,719,303		14314Z-MM-3	Invesco CMI Investments MM, LLC - Senior Secured Notes - Term Loan Series 2022-10	2	64,640,000	64,640,000
57629*MR9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		130,763,074	130,763,074	04/25/2024	04/29/2025	TRS Bond Index				46143H-MY-0	Aimco CLO 12 Ltd-AIMCO 2020-12A AR	2	130,763,074	130,763,074
57629*MR9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,732,043	9,942,722	04/25/2024	04/29/2025	TRS Bond Index				00140L-AG-9	ASF VIII SUNTORI, L.P and ASF VIII B SUNTORI, L.P.-Senior Secured European Term Loan	1	9,732,043	9,942,722
57629*MS7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	233,942,308	39,958,940	36,918,763	06/13/2024	06/12/2026	TRS Bond Index		(3,081,237)		00259H-MM-3	Twin Brook Capital Funding XIII	1	39,958,940	40,000,000
57629*MS7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		176,012,439	176,012,439	06/13/2024	06/12/2026	TRS Bond Index				901399-MY-8	WSPV, LLC	1	176,012,439	176,012,439
57629*MS7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,523,951	10,018,060	06/13/2024	06/12/2026	TRS Bond Index				460988-AA-6	Invesco CLO 2022-1 Ltd-INVCO 2022-1A A	1	9,523,951	10,018,060
57629*MS7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,701,253	20,020,180	06/13/2024	06/12/2026	TRS Bond Index				55819M-AN-6	Madison Park Funding XXX-HDPK 2019-35A A1R	1	19,701,253	20,020,180
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	308,812,500	(3,517,900)	(18,902,328)	10/24/2022	11/28/2048	Currency Swap	(38,210,400)	(37,055,355)		61819B-AB-6	Canal & River Trust Senior Note Ser	1	34,692,500	18,153,027
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,044,000	8,681,868	10/24/2022	11/28/2048	Currency Swap				G8302*-AE-9	University of Stirling Senior Note Ser	1	14,044,000	8,681,868
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		66,111,210	39,332,150	10/24/2022	11/28/2048	Currency Swap				G6892H-AA-5	Paradigm Homes Charitabl Senior Secured	1	66,111,210	39,332,150
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		40,912,520	27,028,705	10/24/2022	11/28/2048	Currency Swap				G6892H-AB-3	Paradigm Homes Charitabl Senior Secured	1	40,912,520	27,028,705
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		36,479,970	19,998,150	10/24/2022	11/28/2048	Currency Swap				G9308*-AA-1	University of Lancaster Senior Note Ser	1	36,479,970	19,998,150
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,183,400	8,318,007	10/24/2022	11/28/2048	Currency Swap				G8309H-AA-6	University of Durham Senior Unsecured Notes	1	14,183,400	8,318,007
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		89,753,890	55,225,191	10/24/2022	11/28/2048	Currency Swap				G8288B-AB-1	University of East Angli Senior Unsecured Notes	1	89,753,890	55,225,191

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SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		38,874,000	27,665,993	10/24/2022	11/28/2048	Currency Swap			G1870*-AB-4	Cambridge Housing Societ Senior Secured Notes Series B	2	38,874,000	27,665,993
57629*HR5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,399,050	19,682,543	10/24/2022	11/28/2048	Currency Swap			G1870*-AA-6	Cambridge Housing Societ Senior Secured Notes Series A	2	28,399,050	19,682,543
57629*HT1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	258,992,600	(24,745,880)	(12,696,747)	10/26/2022	08/15/2052	Currency Swap	(31,014,880)	(16,548,979)	G2269#-AA-9	College of Corpus Christ Senior Notes	1	6,269,000	3,852,232
57629*HT1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,054,720	11,094,429	10/26/2022	08/15/2052	Currency Swap			G5879#-AA-6	The Master, The Fellows Senior Notes	1	18,054,720	11,094,429
57629*HT1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		62,360,000	35,846,391	10/26/2022	08/15/2052	Currency Swap			G6428#-AM-2	Network Homes Ltd Senior Secured Note	1	62,360,000	35,846,391
57629*HT1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,174,000	7,132,022	10/26/2022	08/15/2052	Currency Swap			G2034#-AB-1	Duchy of Lancaster Senior Note Series A	2	12,174,000	7,132,022
57629*HT1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		181,230,000	94,932,760	10/26/2022	08/15/2052	Currency Swap			G5649*-AA-7	LORD MAYOR & CITIZENS CITY WESTMINSTER GBP TERM LN ISSUED AUG 2019	1	181,230,000	94,932,760
57629*HS3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		213,608,440	70,006,450	10/26/2022	10/12/2033	Currency Swap	(18,285,800)	(18,518,963)	Q0536E-ZZ-0	Aroundtown SA Senior Unsecured Notes	2	88,292,250	70,304,461
57629*HS3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,825,500	14,032,096	10/26/2022	10/12/2033	Currency Swap			G7996#-AE-0	Segro plc Senior Note Series B	1	17,825,500	14,032,096
57629*HS3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		153,657,000	103,912,623	10/26/2022	10/12/2033	Currency Swap			G1847#-AB-0	Capital Investors Europe PBI Limited - Series B Senior Note	1	153,657,000	103,912,623
57629*HU8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	108,755,400	30,927,300	18,357,722	10/27/2022	11/27/2043	Currency Swap	(11,217,180)	(8,314,317)	G5560*-AB-0	London School Of Economi Senior Note Ser	1	42,144,480	26,672,039
57629*HU8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,959,892	5,697,360	10/27/2022	11/27/2043	Currency Swap			G1819#-AA-8	Canal & River Trust Senior Note Ser	1	9,959,892	5,697,360
57629*HU8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		26,879,341	17,521,509	10/27/2022	11/27/2043	Currency Swap			G8302*-AD-1	University of Stirling Senior Note Ser	1	26,879,341	17,521,509
57629*HU8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		54,369,150	31,839,010	10/27/2022	11/27/2043	Currency Swap			G4R1JX-AY-7	Heathrow Funding Limited Senior Secured Notes Class A	2	54,369,150	31,839,010
57629*HV6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		61,752,000	41,308,763	10/27/2022	02/22/2050	Currency Swap	(4,687,200)	(3,650,644)	B1401#-AE-7	Brussels Airport Company Senior Secured Notes	2	66,910,400	44,959,407
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		207,703,020	(4,915,460)	10/27/2022	12/19/2028	Currency Swap	(15,832,740)	(14,619,676)	G5264#-AW-9	Kingspan Securities 2017 Gtd Senior Note	2	10,917,280	8,692,110
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,559,600	25,750,343	10/27/2022	12/19/2028	Currency Swap			N5084#-AB-7	Koole Terminals Subholdi Senior Secured	2	31,559,600	25,750,343
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		29,205,000	25,694,155	10/27/2022	12/19/2028	Currency Swap			F4832#-AA-4	Groupe Holder S.A.S. Bank Loan	2	29,205,000	25,694,155
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		97,344,300	81,989,957	10/27/2022	12/19/2028	Currency Swap			F8494#-AB-2	Sodiaal International S. Senior Unsecured Notes	2	97,344,300	81,989,957
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,900,400	27,265,422	10/27/2022	12/19/2028	Currency Swap			N5946*-AB-7	NSI N V EURO LN FAC	2	31,900,400	27,265,422
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,790,400	13,571,247	10/27/2022	12/19/2028	Currency Swap			479142-E*-8	Johnson Matthey PLC Senior Note Series C	1	15,790,400	13,571,247
57629*HII4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		26,807,070	23,332,379	10/27/2022	12/19/2028	Currency Swap			N2319#-AD-7	Corbion N.V. Senior Subordinated Debt	2	26,807,070	23,332,379
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	200,266,200	(7,496,460)	(12,467,871)	10/27/2022	09/12/2030	Currency Swap	(20,463,120)	(21,894,593)	G1744#-AT-5	Cadogan Estates Ltd Gtd Senior Note	2	12,966,660	9,426,722
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		28,214,560	21,073,347	10/27/2022	09/12/2030	Currency Swap			G5304*-AA-3	Knowsley Housing Trust Senior Secured	2	28,214,560	21,073,347
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		97,665,024	71,822,075	10/27/2022	09/12/2030	Currency Swap			G7496*-AC-3	RIT Capital Partners plc Senior Note Ser	2	97,665,024	71,822,075
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		29,453,587	22,875,165	10/27/2022	09/12/2030	Currency Swap			G8302#-AC-9	University of West Londo Senior Secured	1	29,453,587	22,875,165
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		7,404,630	5,874,332	10/27/2022	09/12/2030	Currency Swap			G7737#-AC-8	SGN MidCo Limited Gtd Senior Secu	2	7,404,630	5,874,332
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,650,400	8,537,395	10/27/2022	09/12/2030	Currency Swap			G2685#-AH-2	Great Portland Estates Senior Note Ser	2	10,650,400	8,537,395
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		57,788,238	50,409,886	10/27/2022	09/12/2030	Currency Swap			G8720#-AA-7	Wireless Infrastructure Senior Secured Notes	2	57,788,238	50,409,886

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*HX2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		45,114,372	24,020,579	10/27/2022	09/12/2030	Currency Swap				G7445#-AA-5	Red Funnel Ferry Senior Term Loa	3	45,114,372	24,020,579
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	337,502,600	2,177,605	2,280,684	10/28/2022	10/26/2041	Currency Swap	(29,368,240)	(18,804,091)		G8302#-AB-3	University of Edinburgh Senior Note Ser	1	31,545,845	21,084,775
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		27,891,609	17,493,649	10/28/2022	10/26/2041	Currency Swap				G1128#-AC-2	BIRMINGHAM ARPT FIN PLC SR NT	2	27,891,609	17,493,649
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		41,280,000	24,029,762	10/28/2022	10/26/2041	Currency Swap				G7896#-AA-3	Scottish Oriental Smaller Senior Unsecured Notes	1	41,280,000	24,029,762
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		44,667,000	32,136,596	10/28/2022	10/26/2041	Currency Swap				G2493#-AA-7	Crail Meters Limited - Term Loan	2	44,667,000	32,136,596
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,549,440	8,339,484	10/28/2022	10/26/2041	Currency Swap				G8000#-AG-5	Tottenham Hotspur Stadium Gtd Senior Secured Note Series C	2	13,549,440	8,339,484
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		103,166,063	52,343,488	10/28/2022	10/26/2041	Currency Swap				G0892#-AB-6	Bazalgette Tunnel Limite Senior Secured Notes	2	103,166,063	52,343,488
57629*HY0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		136,424,490	80,912,234	10/28/2022	10/26/2041	Currency Swap				G9160#-AB-4	UK Power Networks Servc Senior Unsecured Notes	1	136,424,490	80,912,234
57629*HZ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	174,033,900	19,491,840	12,815,469	10/28/2022	12/02/2040	Currency Swap	(15,469,680)	(10,404,232)		G5304#-AC-9	Knowsley Housing Trust Senior Secured	2	34,961,520	23,219,700
57629*HZ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		64,947,963	37,486,234	10/28/2022	12/02/2040	Currency Swap				G5258#-AB-3	King's College, London Senior Note Ser	1	64,947,963	37,486,234
57629*HZ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,781,341	9,176,212	10/28/2022	12/02/2040	Currency Swap				G7228#-AB-6	PPES & SCHOLARS ST MARY MAGDALEN SR NT SER B	1	14,781,341	9,176,212
57629*HZ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		19,719,453	13,630,211	10/28/2022	12/02/2040	Currency Swap				G6853#-AC-0	Oxford Brookes Universit Senior Note Ser	2	19,719,453	13,630,211
57629*HZ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,503,000	8,691,362	10/28/2022	12/02/2040	Currency Swap				G8000#-AB-6	Tottenham Hotspur Limite Senior Secured Note Series B	2	12,503,000	8,691,362
57629*HZ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		65,110,000	38,925,413	10/28/2022	12/02/2040	Currency Swap				G7895#-AH-9	Scottish Mortgage Invest Senior Unsecured Notes	1	65,110,000	38,925,413
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	294,033,600	(4,211,640)	(4,197,136)	10/27/2022	06/27/2029	Currency Swap	(18,552,120)	(17,119,523)		G294A#-AH-2	Dyson Finance Limited Gtd Senior Note	1	14,340,480	12,922,388
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		17,823,520	15,999,940	10/27/2022	06/27/2029	Currency Swap				B1401#-AB-3	Brussels Airport Company Senior Secured	2	17,823,520	15,999,940
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		26,068,040	22,477,270	10/27/2022	06/27/2029	Currency Swap				48021P-#A#-7	Jones Lang LaSalle Finan Gtd Senior Note	2	26,068,040	22,477,270
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		45,832,540	40,463,643	10/27/2022	06/27/2029	Currency Swap				N9146#-AE-7	Van Oord NV - EUR Term Loan	2	45,832,540	40,463,643
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		135,240,840	121,931,763	10/27/2022	06/27/2029	Currency Swap				F2977#-AA-3	Elis S.A. Senior Note Series A	2	135,240,840	121,931,763
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		67,994,280	57,292,184	10/27/2022	06/27/2029	Currency Swap				F8568#-AF-6	Sonepar S.A. Senior Note Series C Bidcorp Foodservice Inte Senior	2	67,994,280	57,292,184
57629*JA0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		18,856,400	16,675,806	10/27/2022	06/27/2029	Currency Swap				G1267#-AB-5	Unsecured Notes Plymouth Community Homes Senior	2	18,856,400	16,675,806
57629*JB8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	144,459,719	8,941,878	7,689,921	10/28/2022	09/27/2042	Currency Swap	(12,570,356)	(7,935,774)		G7137#-AC-4	University of Glasgow Senior Note Ser	1	21,512,234	15,625,694
57629*JB8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		51,097,200	31,842,074	10/28/2022	09/27/2042	Currency Swap				G8303#-AC-8	University of Birmingham Senior Note Ser	1	51,097,200	31,842,074
57629*JB8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		30,911,400	19,490,670	10/28/2022	09/27/2042	Currency Swap				G8304#-AA-5	University of Birmingham Senior Unsecure	1	30,911,400	19,490,670
57629*JB8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		27,535,600	18,867,361	10/28/2022	09/27/2042	Currency Swap				G9306#-AB-7	University of Keele Senior Note Ser	1	27,535,600	18,867,361
57629*JB8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		17,827,810	10,720,290	10/28/2022	09/27/2042	Currency Swap				G8279#-AB-4	South East Water Limited Gtd Senior Secured Note Series 2	2	17,827,810	10,720,290
57629*JB8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,177,000	8,754,130	10/28/2022	09/27/2042	Currency Swap				G5383#-AD-1	Last Mile Infrastructure Senior Secured Notes	2	13,177,000	8,754,130
57629*JD4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	116,031,600	810,360	(810,159)	10/31/2022	06/28/2039	Currency Swap	(10,641,240)	(8,839,404)		G4622#-AP-4	Howard De Walden Estates Senior Unsecured Notes Series B	1	11,451,600	8,029,245
57629*JD4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		53,963,760	37,761,654	10/31/2022	06/28/2039	Currency Swap				G1608#-AA-1	Bromford Housing Group L Senior Secured Notes	1	53,963,760	37,761,654
57629*JD4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		63,390,000	45,807,276	10/31/2022	06/28/2039	Currency Swap				G6043#-AF-2	Metropolitan Housing Tru Senior Secured Notes	1	63,390,000	45,807,276

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*J06	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	123,989,250	64,418,160	52,083,638	10/31/2022	03/31/2034	Currency Swap	(9,210,630)	(9,130,034)	G9006#-AD-8	Transmission Finance DAC Senior Secured	2	73,628,790	61,213,671
57629*J06	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	9,293,880	9,293,880	6,933,530	10/31/2022	03/31/2034	Currency Swap			D5472#-AQ-3	Molkerei Alois Muller GM Senior Note Series M	2	9,293,880	6,933,530
57629*J06	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	55,785,000	55,785,000	45,587,364	10/31/2022	03/31/2034	Currency Swap			D7002#-AB-3	Rheinkalk Holding GmbH Senior Note Series A-2034	2	55,785,000	45,587,364
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	166,457,590	12,791,696	8,568,848	10/31/2022	12/02/2035	Currency Swap	(15,422,864)	(11,451,578)	G5304*-AB-1	Knobsley Housing Trust Senior Secured	2	28,214,560	20,020,425
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	65,213,434	65,213,434	44,435,466	10/31/2022	12/02/2035	Currency Swap			G0746*-AA-0	Bankers Investment Trust Senior Note	1	65,213,434	44,435,466
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	14,781,341	14,781,341	9,982,786	10/31/2022	12/02/2035	Currency Swap			G7228#-AA-8	PRES & SCHOLARS ST MARY MAGDALEN SR NT SER A	1	14,781,341	9,982,786
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	19,719,453	19,719,453	14,515,459	10/31/2022	12/02/2035	Currency Swap			G6853#-AB-2	Oxford Brookes Universit Senior Note Ser	2	19,719,453	14,515,459
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	6,251,500	6,251,500	4,862,682	10/31/2022	12/02/2035	Currency Swap			G9000#-AA-8	Tottenham Hotspur Limite Senior Secured Note Series A	2	6,251,500	4,862,682
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	31,644,108	31,644,108	22,422,130	10/31/2022	12/02/2035	Currency Swap			G3122#-AD-0	ESPUG Finance Limited Senior Secured Notes	2	31,644,108	22,422,130
57629*JE2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	33,792,200	33,792,200	23,937,718	10/31/2022	12/02/2035	Currency Swap			G2685#-AL-3	Great Portland Estates P Senior Unsecured Notes	2	33,792,200	23,937,718
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	173,400,000	22,175,130	15,803,001	11/01/2022	12/14/2036	Currency Swap	(16,230,000)	(13,108,441)	G1512#-AA-8	AVI Global Trust PLC - Senior Note Series A GBP	1	38,405,130	28,911,442
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	23,142,450	23,142,450	17,399,054	11/01/2022	12/14/2036	Currency Swap			G8902*-AB-5	University of Stirling Senior Note Ser	1	23,142,450	17,399,054
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	21,107,200	21,107,200	14,456,258	11/01/2022	12/14/2036	Currency Swap			G4622*-AM-1	Howard De Walden Estates Gtd Senior Note	1	21,107,200	14,456,258
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	34,745,940	34,745,940	27,523,208	11/01/2022	12/14/2036	Currency Swap			G4410*-AB-5	Heriot Watt University Senior Unsecure	2	34,745,940	27,523,208
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	6,774,720	6,774,720	4,560,677	11/01/2022	12/14/2036	Currency Swap			G9000#-AF-7	Tottenham Hotspur Stadiu Gtd Senior Secured Note Series B	2	6,774,720	4,560,677
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	18,607,050	18,607,050	13,516,826	11/01/2022	12/14/2036	Currency Swap			G4569#-AB-0	Hightown Housing Association Limited	1	18,607,050	13,516,826
57629*JF9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	61,980,100	61,980,100	45,090,790	11/01/2022	12/14/2036	Currency Swap			G4378*-AL-3	Heathrow Airport Limited Senior Secured Notes	2	61,980,100	45,090,790
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	171,178,020	4,609,840	760,188	11/01/2022	07/14/2032	Currency Swap	(13,030,020)	(13,503,587)	G1591#-BJ-0	Britvic PLC Senior Notes Series 0	2	17,639,860	14,263,775
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	34,682,040	34,682,040	26,897,474	11/01/2022	07/14/2032	Currency Swap			D5472#-AP-5	Molkerei Alois Muller GM Senior Note Series L	2	34,682,040	26,897,474
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	38,521,000	38,521,000	30,661,155	11/01/2022	07/14/2032	Currency Swap			F3152*-AJ-3	Ermewa Holding SAS Senior Secured Notes	2	38,521,000	30,661,155
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	16,623,000	16,623,000	13,314,962	11/01/2022	07/14/2032	Currency Swap			G2687*-AB-5	Dawsongroup plc Senior Note Series B	2	16,623,000	13,314,962
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	32,103,000	32,103,000	28,737,097	11/01/2022	07/14/2032	Currency Swap			N7660#-AY-3	SHV Holdings NV Guaranteed Notes	2	32,103,000	28,737,097
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	31,338,000	31,338,000	26,711,773	11/01/2022	07/14/2032	Currency Swap			479142-F#-3	Johnson Matthey PLC Senior Notes Sustainability-Linked Series A	1	31,338,000	26,711,773
57629*JG7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	15,093,000	15,093,000	14,922,218	11/01/2022	07/14/2032	Currency Swap			F4832#-AC-0	Groupe Holder S.A.S. Senior Unsecured Notes	2	15,093,000	14,922,218
57629*JH5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	128,662,800	6,717,440	3,541,826	11/01/2022	10/06/2032	Currency Swap	(12,042,660)	(11,949,379)	G6774*-AD-6	Origin Housing Limited Senior Secured	1	18,760,100	15,491,205
57629*JH5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	61,921,860	61,921,860	49,110,251	11/01/2022	10/06/2032	Currency Swap			G0892#-AA-8	Bazalgette Tunnel Limite Senior Secured	2	61,921,860	49,110,251
57629*JH5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	33,182,500	33,182,500	26,238,945	11/01/2022	10/06/2032	Currency Swap			G3122#-AB-4	ESPUG Finance Limited Gtd Senior Secu	2	33,182,500	26,238,945
57629*JH5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	12,122,000	12,122,000	10,328,514	11/01/2022	10/06/2032	Currency Swap			G6970*-AX-4	Peel Ports PP Finance Lt Senior Secured Notes	2	12,122,000	10,328,514
57629*JH5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	17,812,080	17,812,080	18,777,056	11/01/2022	10/06/2032	Currency Swap			G2283#-AG-8	Colombo BidCo Limited Senior Secured Notes	2	17,812,080	18,777,056
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	310,627,067	(10,827,998)	(9,737,027)	11/01/2022	10/06/2037	Currency Swap	(28,194,968)	(23,154,035)	G5676#-AA-9	Lowland Investment Compa Senior Note	1	17,366,970	13,417,007

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		138,287,539	113,513,652	11/01/2022	10/06/2037	Currency Swap				G7304#-AD-9	Quadgas Midco Limited Fixed Rate Guar	2	138,287,539	113,513,652
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		21,512,234	16,962,272	11/01/2022	10/06/2037	Currency Swap				G7137#-AB-6	Plymouth Community Homes Senior Secured University of Keele Senior Note Ser	1	21,512,234	16,962,272
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		27,535,600	20,388,844	11/01/2022	10/06/2037	Currency Swap				G9306#-AA-9		1	27,535,600	20,388,844
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		61,921,860	47,611,319	11/01/2022	10/06/2037	Currency Swap				G3620#-AA-1	ForCapital Limited Senior Secured ESPUG Finance Limited Gtd Senior Secu	2	61,921,860	47,611,319
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		33,182,500	23,972,013	11/01/2022	10/06/2037	Currency Swap				G3122#-AC-2	Last Mile Infrastructure Senior Secured Notes	2	33,182,500	23,972,013
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,177,000	9,433,208	11/01/2022	10/06/2037	Currency Swap				G5383#-AC-3	Curo Places Ltd. Senior Secured	1	13,177,000	9,433,208
57629*JJ1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		4,770,446	2,836,159	11/01/2022	10/06/2037	Currency Swap				G2711#-AA-7	Notes University of Glasgow Senior Note Ser	1	4,770,446	2,836,159
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		160,260,800	4,745,810	11/02/2022	11/24/2051	Currency Swap	(16,221,520)	(6,938,312)		G9303#-AB-0	Vale of Aylesbury Housin Senior Secured Notes	1	20,967,330	12,535,691
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		75,680,000	36,695,959	11/02/2022	11/24/2051	Currency Swap				G9312#-AB-3		1	75,680,000	36,695,959
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		2,644,938	1,719,565	11/02/2022	11/24/2051	Currency Swap				G6260#-AB-7	MORhomes plc Senior Secured Notes Magna Housing Limited Senior Secured Notes	2	2,644,938	1,719,565
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,432,399	5,782,719	11/02/2022	11/24/2051	Currency Swap				G5744#-AA-7		1	11,432,399	5,782,719
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		41,834,220	19,117,576	11/02/2022	11/24/2051	Currency Swap				G5702#-AA-1	MDS Group Investments Ltd Senior Unsecured Notes	1	41,834,220	19,117,576
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		32,598,720	16,286,407	11/02/2022	11/24/2051	Currency Swap				G5702#-AD-5	MDS Group Investments Ltd Senior Note Series D	1	32,598,720	16,286,407
57629*JK8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		124,081	73,769	11/02/2022	11/24/2051	Currency Swap				G2711#-AA-7	Curo Places Ltd. Senior Secured Notes	1	124,081	73,769
57629*JL6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		90,275,000	27,225,300	11/02/2022	11/17/2050	Currency Swap	(8,964,700)	(3,634,141)		G2034#-AA-3	Duchy of Lancaster Senior Unsecured Notes	2	36,190,000	16,678,123
57629*JL6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		67,304,700	29,039,889	11/02/2022	11/17/2050	Currency Swap				G6658#-AB-9	Northumberland Estates L Senior Unsecured Notes	1	67,304,700	29,039,889
57629*KM2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		56,197,920	35,531,360	11/02/2022	12/15/2035	Currency Swap	(4,668,960)	(5,115,348)		A8688#-AC-3	TIWAG-Tiroler Wasserkräf Senior Note	1	40,200,320	34,802,070
57629*KM2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		22,012,000	16,541,218	11/02/2022	12/15/2035	Currency Swap				F3152#-AK-0	Ermewa Holding SAS Senior Secured Notes	2	22,012,000	16,541,218
57629*JN2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		73,143,945	19,458,848	11/02/2022	06/08/2036	Currency Swap	(6,100,875)	(6,536,422)		G1512#-AB-6	AVI Global Trust PLC - Senior Note Series B EUR	1	29,896,230	25,995,270
57629*JN2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		29,253,780	18,704,832	11/02/2022	06/08/2036	Currency Swap				F1000#-MM-7	Akiem Holding SAS Green Senior Notes Series A	2	29,253,780	18,704,832
57629*JN2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		26,950,950	16,984,989	11/02/2022	06/08/2036	Currency Swap				G1847#-AC-8	Capital Investors Europe PBI Limited - Series C Senior Note	1	26,950,950	16,984,989
57629*KL4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		34,573,000	14,560,608	11/02/2022	11/01/2037	Currency Swap	(2,933,000)	(3,282,818)		G1512#-AC-4	British Empire Securitie Senior Unsecure	1	23,296,000	17,843,426
57629*KL4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		16,509,000	12,061,930	11/02/2022	11/01/2037	Currency Swap				F3152#-AL-8	Ermewa Holding SAS Senior Secured Notes	2	16,509,000	12,061,930
57629*KK6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		139,919,000	29,726,300	11/03/2022	11/14/2034	Currency Swap	(14,566,240)	(12,162,734)		G2479#-AB-3	Coventry University Senior Note Ser	1	44,292,540	33,524,419
57629*KK6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		12,176,471	9,640,884	11/03/2022	11/14/2034	Currency Swap				G4622#-AN-9	Howard De Walden Estates Senior Unsecured Notes Series A	1	12,176,471	9,640,884
57629*KK6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		20,784,598	17,292,562	11/03/2022	11/14/2034	Currency Swap				G6750#-AF-9	1887 Company Ltd Senior Secured Note Series F	2	20,784,598	17,292,562
57629*KK6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,272,000	7,916,764	11/03/2022	11/14/2034	Currency Swap				G4622#-AS-8	Howard De Walden Estates Senior Unsecured Notes Series E	1	10,272,000	7,916,764
57629*KK6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		61,084,029	45,973,845	11/03/2022	11/14/2034	Currency Swap				G6300#-AB-9	Moto Investments Limited Senior Secured Notes	2	61,084,029	45,973,845
57629*KK6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		12,122,000	9,815,249	11/03/2022	11/14/2034	Currency Swap				G6970#-AY-2	Peel Ports PP Finance Lt Senior Secured Notes	2	12,122,000	9,815,249
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		278,348,060	(4,301,556)	11/02/2022	11/30/2031	Currency Swap	(23,735,980)	(22,804,936)		X2145#-AD-8	Elenia Verkko Oyj Gtd Senior Note	2	21,701,760	18,503,381

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		42,847,000	31,369,381	11/02/2022	11/30/2031	Currency Swap				03063#-AD-6	Americold Realty Trust Senior Unsecured Notes	2	42,847,000	31,369,381
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		24,236,000	17,905,450	11/02/2022	11/30/2031	Currency Swap				D5472#-AL-4	Molkerei Alois Muller GM Senior Unsecured Notes	2	24,236,000	17,905,450
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		38,201,600	30,265,105	11/02/2022	11/30/2031	Currency Swap				F8494#-AC-0	Sodiaal International S. Senior Unsecured Notes	2	38,201,600	30,265,105
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,760,100	23,148,846	11/02/2022	11/30/2031	Currency Swap				L8367#-AG-8	Shurgard Self Storage S. Senior Unsecured Notes	2	31,760,100	23,148,846
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		56,590,000	45,846,424	11/02/2022	11/30/2031	Currency Swap				F9768#-AB-9	Vilmorin & Cie SA Senior Unsecured Notes	2	56,590,000	45,846,424
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		90,078,120	72,864,922	11/02/2022	11/30/2031	Currency Swap				F2000#-AA-6	C2 Developpement Senior Unsecured Notes	2	90,078,120	72,864,922
57629*KJ9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,700,160	20,173,630	11/02/2022	11/30/2031	Currency Swap				F9731#-AJ-6	Vicat SA Senior Unsecured Notes	2	25,700,160	20,173,630
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	250,562,150	13,912,910	6,741,626	11/03/2022	12/22/2031	Currency Swap	(25,602,340)	(22,848,576)		G4133#-AA-1	Grosvenor Limited Senior Note Ser Porterbrook Rail Finance Senior	2	39,515,250	29,590,202
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		14,241,960	11,613,548	11/03/2022	12/22/2031	Currency Swap				G7178#-AD-6	Secured Howard De Walden Estates Gtd Senior	2	14,241,960	11,613,548
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,872,800	9,186,732	11/03/2022	12/22/2031	Currency Swap				G4622#-AL-3	Note South East Water Limited Gtd Senior	1	11,872,800	9,186,732
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		35,780,290	28,097,199	11/03/2022	12/22/2031	Currency Swap				G8279#-AA-6	Secured Note Series 1 Beacon Finco S.a.r.l Senior Secured	2	35,780,290	28,097,199
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,842,500	26,640,676	11/03/2022	12/22/2031	Currency Swap				L0808#-AC-1	Note Series B	2	31,842,500	26,640,676
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		22,260,800	17,160,392	11/03/2022	12/22/2031	Currency Swap				G1151#-AB-0	Bellway Plc Senior Note Series B TP REIT Propco 2 Limited Senior	2	22,260,800	17,160,392
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		57,647,401	42,201,381	11/03/2022	12/22/2031	Currency Swap				G8655#-AA-8	Secured Notes Breedon Group Plc Senior Note	1	57,647,401	42,201,381
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		21,571,740	16,186,882	11/03/2022	12/22/2031	Currency Swap				G1320#-AB-0	Series B SOUTH STAFFORDSHIRE PLC GBP FAC A	2	21,571,740	16,186,882
57629*KH3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		38,868,870	30,370,662	11/03/2022	12/22/2031	Currency Swap				G8277#-AE-0	LN - ISSUED DEC 2021 ERMewa HLDG SEC2 SR INITIAL PP NTS	2	38,868,870	30,370,662
57629*KG5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	234,948,546	50,106,806	38,595,286	11/04/2022	12/11/2031	Currency Swap	(20,164,294)	(19,328,980)		F3152#-AG-9	2019-2 Lineage Treasury Europe Senior	2	70,271,100	57,924,266
57629*KG5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		141,191,040	103,488,227	11/04/2022	12/11/2031	Currency Swap				N5269#-AB-4	Unsecured Notes Series D Futbol Club Barcelona Senior	2	141,191,040	103,488,227
57629*KG5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		29,599,525	25,367,231	11/04/2022	12/11/2031	Currency Swap				E5444#-AF-1	Secured Note Series B1 (Amortizing) Futbol Club Barcelona Senior	2	29,599,525	25,367,231
57629*KG5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		33,828,002	27,887,707	11/04/2022	12/11/2031	Currency Swap				E5444#-AG-9	Secured Note Series B2 (Bullet) DENTSPLY Sirona Inc. Senior Note	2	33,828,002	27,887,707
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	197,737,711	(11,007,495)	(10,477,210)	11/04/2022	12/07/2029	Currency Swap	(16,861,977)	(15,542,456)		24906P-C#-4	Ser Sirona Dental Services G Senior	2	5,854,482	5,065,247
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		17,563,446	15,195,740	11/04/2022	12/07/2029	Currency Swap				D8286#-AD-2	Note Ser	2	17,563,446	15,195,740
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		64,579,647	52,840,164	11/04/2022	12/07/2029	Currency Swap				B8550#-AB-7	Unicore SA Senior Note Ser Laurent-Perrier Group Senior	2	64,579,647	52,840,164
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,280,890	11,334,208	11/04/2022	12/07/2029	Currency Swap				F5662#-AA-6	Unsecured	2	13,280,890	11,334,208
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		38,300,500	33,783,830	11/04/2022	12/07/2029	Currency Swap				B9550#-AD-3	Unicore SA Senior Note Series B Akiem Holding SAS Senior Secured	2	38,300,500	33,783,830
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		19,855,700	16,800,781	11/04/2022	12/07/2029	Currency Swap				F1000#-AB-4	Notes (Bullet) Electrocomponents plc Senior Notes	2	19,855,700	16,800,781
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		5,596,230	4,838,317	11/04/2022	12/07/2029	Currency Swap				285295-B#-7	Series C	2	5,596,230	4,838,317
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		44,594,550	38,625,822	11/04/2022	12/07/2029	Currency Swap				N3527#-AA-7	Getec Infra NL BV Term Fac	2	44,594,550	38,625,822
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		15,939,450	12,831,874	11/04/2022	12/07/2029	Currency Swap				D3002#-AA-4	GETEC INFRA NLBV-2021 EUR Fixed Incremental Term Loan	2	15,939,450	12,831,874
57629*KF7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		1,506,465	1,461,883	11/04/2022	12/07/2029	Currency Swap				U74079-AP-6	Netflix Inc-SENIOR UNSECURED	2	1,506,465	1,461,883

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	292,527,085	17,878,075	11,479,852	11/04/2022	08/19/2030	Currency Swap	(25,041,575)	(24,247,267)	592688-BF-1	Mettler-Toledo Internati Senior Note	2	42,919,650	35,727,119
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	70,494,750	63,063,916	63,063,916	11/04/2022	08/19/2030	Currency Swap			X2145*-AC-0	Elenia Verkko Oyj Gtd Senior Note	2	70,494,750	63,063,916
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	34,749,000	29,700,283	29,700,283	11/04/2022	08/19/2030	Currency Swap			G3076*-AE-6	Envol Investments Limite Senior Secured Notes	2	34,749,000	29,700,283
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	36,998,400	31,387,661	31,387,661	11/04/2022	08/19/2030	Currency Swap			F5900*-AA-8	MacqPisto SAS Senior Term Loa	2	36,998,400	31,387,661
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	27,855,090	22,482,077	22,482,077	11/04/2022	08/19/2030	Currency Swap			G4940*-AA-4	Irish Residential Proper Senior Secured Notes	2	27,855,090	22,482,077
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	15,857,060	13,609,367	13,609,367	11/04/2022	08/19/2030	Currency Swap			G3301*-AB-9	FIL Limited Senior Unsecured Notes	2	15,857,060	13,609,367
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	47,506,560	45,323,752	45,323,752	11/04/2022	08/19/2030	Currency Swap			G294A*-AK-5	Dyson Finance Limited Guaranteed Series A Senior Notes	1	47,506,560	45,323,752
57629*KE0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	56,150,000	48,706,202	48,706,202	11/04/2022	08/19/2030	Currency Swap			F7754*-AC-7	Safran Group Senior Unsecured Notes	1	56,150,000	48,706,202
57629*KD2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	58,747,500	6,285,830	3,239,732	11/07/2022	04/05/2046	Currency Swap	(7,623,000)	(5,567,405)	G8302*-AC-1	University of Edinburgh Senior Note Ser	1	13,908,830	8,807,137
57629*KD2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	58,013,288	36,613,501	36,613,501	11/07/2022	04/05/2046	Currency Swap			X3204*-AB-4	Gibraltar Capital Assets Senior Secured	2	58,013,288	36,613,501
57629*KC4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	159,348,640	(587,520)	(2,056,091)	11/07/2022	11/29/2030	Currency Swap	(15,107,840)	(14,869,670)	F5662*-AB-4	Laurent-Perrier Group Senior Unsecured Notes	2	14,520,320	12,813,579
57629*KC4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	178,005,000	144,252,416	144,252,416	11/07/2022	11/29/2030	Currency Swap			F3806Z*-MM-5	FFP SA Senior Unsecured Notes	1	178,005,000	144,252,416
57629*KB6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	41,179,875	9,375,446	4,357,236	11/07/2022	12/08/2045	Currency Swap	(5,405,895)	(4,240,897)	G7228*-AC-4	NT SER C	1	14,781,341	8,598,133
57629*KB6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	38,565,045	23,276,729	23,276,729	11/07/2022	12/08/2045	Currency Swap			G2867*-AA-5	Dunedin Income Growth In Senior Secured	1	38,565,045	23,276,729
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	174,986,912	9,378,423	2,530,478	11/07/2022	12/31/2029	Currency Swap	(22,794,451)	(21,420,145)	G0566*-AC-3	Arqiva PP Financing plc Gtd Senior Secu	2	32,172,875	23,950,623
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	20,188,350	14,396,216	14,396,216	11/07/2022	12/31/2029	Currency Swap			G1745*-AM-3	BUJK Infrastructure Issuer PLC - Senior Note Series B	2	20,188,350	14,396,216
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	49,826,081	34,880,342	34,880,342	11/07/2022	12/31/2029	Currency Swap			G0176*-AA-7	ALLIANCE TR PLC	1	49,826,081	34,880,342
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	3,953,225	3,989,870	3,989,870	11/07/2022	12/31/2029	Currency Swap			G0566*-AD-1	Arqiva Financing No 1 Li Gtd Senior FI R	2	3,953,225	3,989,870
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	26,926,560	24,473,484	24,473,484	11/07/2022	12/31/2029	Currency Swap			G8472*-AE-1	STERIS Corporation Senior Note Ser	2	26,926,560	24,473,484
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	21,974,720	19,592,452	19,592,452	11/07/2022	12/31/2029	Currency Swap			G6750*-AE-2	1887 Company Ltd Senior Secured Note Series E	2	21,974,720	19,592,452
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	26,936,720	23,562,670	23,562,670	11/07/2022	12/31/2029	Currency Swap			L0808*-AB-3	Beacon Finco S.a.r.l Senior Secured Note Series A	2	26,936,720	23,562,670
57629*KAB	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	60,774,350	45,005,487	45,005,487	11/07/2022	12/31/2029	Currency Swap			G8277*-AF-7	SOUTH STAFFORDSHIRE PLC GBP FAC B LN - ISSUED DEC 2021	2	60,774,350	45,005,487
57629*JZ5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	34,605,300	30,712,178	21,524,865	11/07/2022	12/11/2033	Currency Swap	(4,584,900)	(4,439,082)	G6774*-AC-8	Origin Finance 2 plc Senior Secured	1	35,297,078	25,963,947
57629*JZ5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	6,985,500	5,277,561	5,277,561	11/07/2022	12/11/2033	Currency Swap			G7737*-AD-6	SGN MidCo Limited Gtd Senior Secu	2	6,985,500	5,277,561
57629*JZ5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	4,459,044	3,490,706	3,490,706	11/07/2022	12/11/2033	Currency Swap			G1591*-BF-8	Britvic PLC Senior Notes Se	2	4,459,044	3,490,706
57629*JY8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	61,834,505	17,803,887	11,244,615	11/07/2022	08/14/2029	Currency Swap	(3,691,612)	(4,549,215)	Q7794*-AF-0	OPH Finance Co. Pty. Ltd Gtd Senior Secu	2	21,495,499	15,793,830
57629*JY8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	31,415,500	28,264,198	28,264,198	11/07/2022	08/14/2029	Currency Swap			Q8458*-AA-0	Servco Australia Pty Ltd Senior Note Ser	2	31,415,500	28,264,198
57629*JY8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	24,181,920	20,081,265	20,081,265	11/07/2022	08/14/2029	Currency Swap			Q2600*-AD-2	Coates Group Pty Ltd Senior Note Series 2022-D (AUD)	2	24,181,920	20,081,265
57629*JX0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	48,513,122	74,231,025	40,696,244	11/07/2022	11/15/2049	Currency Swap	3,928,302	8,286,797	J3891*-AC-6	Lilly Japan Financing Go Senior Note Series C	1	70,302,724	32,409,448
57629*JW2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	65,036,160	38,197,440	30,073,420	11/08/2022	07/17/2034	Currency Swap	(2,237,760)	(2,803,691)	Q0846*-AA-4	Australian Laboratory Se Senior Unsecured Notes	2	40,435,200	32,877,111

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*JW2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,091,040	23,255,633	11/08/2022	07/17/2034	Currency Swap			Q2600#-AF-7	Coates Group Pty Ltd Senior Note Series 2022-F (AUD)	2	31,091,040	23,255,633
57629*JV4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	64,370,000	67,272,480	54,625,665	11/08/2022	06/25/2031	Currency Swap	(2,370,000)	(2,872,046)	74726M-AA-0	Qantas Airways Limited Senior Secured Notes	2	69,642,480	57,497,711
57629*JU6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	64,738,386	89,102,210	63,699,343	11/09/2022	05/11/2032	Currency Swap	5,900,386	8,506,305	L2289#-AB-7	DH Japan Finance SA Senior Note Ser	1	83,201,824	55,193,038
57629*JT9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	20,044,000	22,114,000	13,068,883	11/09/2022	10/14/2040	Currency Swap	(1,388,000)	(1,381,364)	A5791*-AA-9	OBB Produktion GmbH Senior Unsecured Notes	1	23,502,000	14,450,247
57629*JS1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	46,466,369	25,298,530	16,432,488	11/09/2022	06/04/2038	Currency Swap	(4,600,991)	(3,563,588)	G7895*-AE-6	Scottish Mortgage Invest Senior Note Ser	1	29,899,520	19,996,076
57629*JS1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		22,580,221	17,911,795	11/09/2022	06/04/2038	Currency Swap			G6260#-AA-9	MORhones plc Senior Secured Notes	2	22,580,221	17,911,795
57629*JR3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	39,645,360	45,924,480	30,058,762	11/09/2022	06/15/2041	Currency Swap	(1,199,520)	(905,742)	Q9609*-AD-0	WestConnex Finance Compa Senior Secured Notes	2	47,124,000	30,964,504
57629*JQ5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	51,085,002	53,963,159	46,450,824	11/09/2022	11/30/2027	Currency Swap	(4,985,201)	(4,602,674)	G2735*-AA-9	Great Rolling Stock Co PLC/The Origin Finance 2 plc Senior Secured	2	58,938,360	51,053,499
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	329,572,593	(17,881,261)	(19,582,241)	11/10/2022	12/11/2028	Currency Swap	(31,159,591)	(29,395,642)	G6774*-AB-0	BUUK Infrastructure Issuer PLC - Senior Note Series H	1	13,278,330	9,813,400
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		57,699,455	46,014,022	11/10/2022	12/11/2028	Currency Swap			G1745*-AJ-0	Porterbrook Rail Finance Senior Secured	2	57,699,455	46,014,022
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		33,099,370	28,615,395	11/10/2022	12/11/2028	Currency Swap			G7178*-AB-0	Porterbrook Rail Finance Senior Secured	2	33,099,370	28,615,395
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,165,821	1,847,090	11/10/2022	12/11/2028	Currency Swap			G1591#-BC-5	Britvic PLC Senior Notes Se	2	2,165,821	1,847,090
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		12,514,220	10,469,548	11/10/2022	12/11/2028	Currency Swap			G2685#-AG-4	Great Portland Estates Senior Note Ser	2	12,514,220	10,469,548
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,635,440	7,329,724	11/10/2022	12/11/2028	Currency Swap			G4133#-AE-3	Grosvenor Limited Senior Notes Series A	2	8,635,440	7,329,724
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		67,339,581	55,220,717	11/10/2022	12/11/2028	Currency Swap			G9075*-AA-2	Tritax Big Box REIT plc Senior Note Series A	2	67,339,581	55,220,717
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,314,307	10,869,533	11/10/2022	12/11/2028	Currency Swap			G1151#-AA-2	Bellway Plc Senior Note Series A	2	13,314,307	10,869,533
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		42,774,210	34,030,997	11/10/2022	12/11/2028	Currency Swap			B1000#-AA-0	Aedifica SA Senior Unsecured Notes	2	42,774,210	34,030,997
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		38,546,013	26,550,000	11/10/2022	12/11/2028	Currency Swap			22982*-AA-4	Cubitt Global LLC Senior Secured Notes	6	38,546,013	26,550,000
57629*JP7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		43,045,654	30,245,000	11/10/2022	12/11/2028	Currency Swap			22982*-AB-2	Cubitt Global LLC Senior Secured Notes Series 6	6	43,045,654	30,245,000
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	293,792,428	19,312,993	13,046,148	11/10/2022	10/31/2034	Currency Swap	(28,027,507)	(23,406,321)	G2686#-AB-4	Great Rolling Stock Comp Senior Secured	2	47,340,500	36,452,469
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		50,338,565	43,444,399	11/10/2022	10/31/2034	Currency Swap			00183F-AA-3	Anno 2017 Joint Holding Senior Secured	2	50,338,565	43,444,399
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		227,935	203,238	11/10/2022	10/31/2034	Currency Swap			9991DM-ON-6	ITEMOSA 3.40%	2	227,935	203,238
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,320,791	11,352,097	11/10/2022	10/31/2034	Currency Swap			G2854#-AA-0	Dudgeon Offshore Wind Lt Senior Secured Notes	1	13,320,791	11,352,097
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		58,284,627	48,421,128	11/10/2022	10/31/2034	Currency Swap			X2313#-AA-6	Eruca Investments Limite Senior Secured Notes	2	58,284,627	48,421,128
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		27,384,550	22,478,760	11/10/2022	10/31/2034	Currency Swap			L0808#-AG-2	Beacon Finco S.a.r.l Senior Secured Note Series F	2	27,384,550	22,478,760
57629*KP5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		127,792,369	94,391,925	11/10/2022	10/31/2034	Currency Swap			G6954#-AD-4	Peabody Trust Senior Secured Notes	1	127,792,369	94,391,925
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	294,295,155	(4,677,795)	(8,523,487)	11/14/2022	12/12/2027	Currency Swap	(31,805,235)	(29,393,330)	G3461#-AA-5	VIVID Housing Limited	1	27,127,440	20,869,843
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		46,153,930	34,226,907	11/14/2022	12/12/2027	Currency Swap			G6462*-AA-9	Newlon Housing Trust Senior Secured	2	46,153,930	34,226,907
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		27,700,200	21,882,809	11/14/2022	12/12/2027	Currency Swap			G9302#-AB-1	University of West Londo Senior Secured	1	27,700,200	21,882,809
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		94,623,360	80,288,551	11/14/2022	12/12/2027	Currency Swap			G8056*-AB-5	Severn Trent Water Limit Senior Note Ser	2	94,623,360	80,288,551

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	20,878,120	18,915,419	18,915,419	11/14/2022	12/12/2027	Currency Swap			G6970*-AJ-5	Peel Ports PP Finance Lt Senior Secured	2	20,878,120	18,915,419
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	25,217,360	22,663,466	22,663,466	11/14/2022	12/12/2027	Currency Swap			G9766*-AE-4	Workspace Group plc Senior Note Ser	2	25,217,360	22,663,466
57629*KNO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	116,243,183	105,223,045	105,223,045	11/14/2022	12/12/2027	Currency Swap			636012-A8-5	National Express Group P Senior Note Series A	2	116,243,183	105,223,045
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	220,300,996	8,766,799	3,351,085	11/14/2022	07/31/2039	Currency Swap	(24,990,988)	(19,688,693)	G9288*-AA-1	University of Brighton Senior Secured	2	33,757,787	23,039,778
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	18,139,632	16,623,793	16,623,793	11/14/2022	07/31/2039	Currency Swap			G3087*-AA-7	EQUITIX SOLAR FINCO 4 LTD GBP TERM LN	2	18,139,632	16,623,793
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	75,879,953	65,114,677	65,114,677	11/14/2022	07/31/2039	Currency Swap			G8408*-AA-8	St. James's Oncology Sr Note	1	75,879,953	65,114,677
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	27,123,488	23,105,140	23,105,140	11/14/2022	07/31/2039	Currency Swap			G3296*-AA-8	FCC Energy Limited Senior Secured	2	27,123,488	23,105,140
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	39,859,588	34,695,374	34,695,374	11/14/2022	07/31/2039	Currency Swap			G3426*-AB-5	GIP III Jupiter LTD Senior Secured Notes	2	39,859,588	34,695,374
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	39,115,659	31,170,498	31,170,498	11/14/2022	07/31/2039	Currency Swap			G1093*-AC-3	BLIF Bidco Limited Senior Secured Notes	2	39,115,659	31,170,498
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	8,772,952	6,898,237	6,898,237	11/14/2022	07/31/2039	Currency Swap			G5383*-AA-7	Last Mile Infrastructure Senior Secured Notes (Delayed Tranche)	2	8,772,952	6,898,237
57629*LF6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	6,275,802	3,688,462	3,688,462	11/14/2022	07/31/2039	Currency Swap			G2711*-AB-5	Curo Places Ltd. Senior Secured Notes	1	6,275,802	3,688,462
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	159,288,575	2,297,795	1,957,971	11/14/2022	10/30/2027	Currency Swap	(11,149,405)	(10,190,167)	L8367*-AE-3	Shurgard Luxembourg Sarl Gtd Senior Note	2	13,447,200	12,148,138
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	23,140,320	21,394,541	21,394,541	11/14/2022	10/30/2027	Currency Swap			G294A8-AG-4	Dyson Finance Limited Gtd Senior Note	1	23,140,320	21,394,541
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	13,425,600	11,909,741	11,909,741	11/14/2022	10/30/2027	Currency Swap			48021P-A*-9	Jones Lang LaSalle Finan Gtd Senior Note	2	13,425,600	11,909,741
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	65,238,650	55,060,818	55,060,818	11/14/2022	10/30/2027	Currency Swap			G7996*-AA-8	Segro Plc Senior Unsecured	1	65,238,650	55,060,818
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	14,281,493	12,488,981	12,488,981	11/14/2022	10/30/2027	Currency Swap			X0827*-AA-3	Budapest Airport Zrt. Tranche 2 Origi	2	14,281,493	12,488,981
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	21,855,307	19,112,183	19,112,183	11/14/2022	10/30/2027	Currency Swap			X0032*-AA-4	Airport Hungary Krt. Tranche 2 Origi	2	21,855,307	19,112,183
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	4,436,800	4,020,617	4,020,617	11/14/2022	10/30/2027	Currency Swap			G1267*-AA-7	Bidcorp Foodservice Inte Senior Unsecured Notes	2	4,436,800	4,020,617
57629*LE9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	22,396,500	25,383,362	25,383,362	11/14/2022	10/30/2027	Currency Swap			T01498-AA-7	ASR Media and Sponsorshi Senior Secured Notes	2	22,396,500	25,383,362
57629*LD1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	53,114,700	54,280,300	37,719,904	11/07/2022	01/15/2049	Currency Swap	(6,302,700)	(4,270,373)	G6428*-AD-2	Network Homes Limited Senior Secured Notes	1	60,583,000	41,990,277
57629*LD1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		271,743	170,437	11/07/2022	01/15/2049	Currency Swap			G1128*-AC-2	BIRMINGHAM ARPT FIN PLC SR NT	2	271,743	170,437
57629*LC3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	152,163,584	81,184,235	65,235,921	11/15/2022	12/31/2047	Currency Swap	(12,589,074)	(7,320,701)	G7612Y-MM-2	Rock Rail Southwestern p Senior Secured	2	93,773,308	72,556,622
57629*LC3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		74,524,310	46,918,204	11/15/2022	12/31/2047	Currency Swap			PPE94P-1B-0	Enfinium Holding Limited Senior Secured Notes	2	74,524,310	46,918,204
57629*LB5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	23,217,790	25,911,790	15,322,476	11/16/2022	04/13/2041	Currency Swap	(839,630)	(998,077)	F1000*-MN-5	Akiem Holding SAS Green Senior Notes Series B	2	26,751,420	16,320,554
57629*LA7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	26,465,280	27,655,680	18,117,131	11/16/2022	04/30/2044	Currency Swap	(967,680)	(1,099,301)	G4460*-AB-4	Henderson International Senior Unsecured Notes	1	28,623,360	19,216,432
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	232,514,108	20,209,760	14,687,632	11/16/2022	08/31/2043	Currency Swap	(8,222,238)	(9,954,547)	EK4615-40-8	Via Solutions Nord GmbH Senior Secured	1	28,431,998	24,642,179
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,877,629	21,664,690	11/16/2022	08/31/2043	Currency Swap			25461C-AA-0	DirectRoute (Tuam) Limit Senior Secured	2	25,877,629	21,664,690
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		42,541,486	36,226,040	11/16/2022	08/31/2043	Currency Swap			382879-AA-2	Gorey To Enniscorthy M11 Senior Secured	2	42,541,486	36,226,040
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		36,168,429	32,249,567	11/16/2022	08/31/2043	Currency Swap			9991DM-ON-6	ITEMOSA 3.40%	2	36,168,429	32,249,567
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		63,776,139	61,493,295	11/16/2022	08/31/2043	Currency Swap			K7784*-AA-3	P/F Eystur-og Sandoyartu Senior Secured	1	63,776,139	61,493,295

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	44,972,070	44,972,070	34,445,355	11/16/2022	08/31/2043	Currency Swap				B7000#-AB-5	Puratos NV Senior Note Series B	2	44,972,070	34,445,355
57629*KZ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	5,459,090	5,459,090	5,232,367	11/16/2022	08/31/2043	Currency Swap				U74079-AR-2	Netflix Inc-SENIOR UNSECURED Channel Link Enterprises Senior Secured	2	5,459,090	5,232,367
57629*KY6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	123,383,920	132,128,521	98,273,698	11/16/2022	06/30/2050	Currency Swap	(4,350,800)	(5,828,116)		G2044*-AA-5	Secured	2	136,479,321	104,101,815
57629*KX8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	150,220,554	40,625,658	33,052,087	11/16/2022	12/31/2027	Currency Swap	(5,462,566)	(5,699,532)		B9550#-AA-9	Unicore SA Senior Note Ser	2	46,088,223	38,751,619
57629*KX8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		100,485,300	86,225,518	11/16/2022	12/31/2027	Currency Swap				372460-D#-1	Genuine Parts Company Senior Note Ser	2	100,485,300	86,225,518
57629*KX8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		22,185,150	19,241,743	11/16/2022	12/31/2027	Currency Swap				031100-N#-7	AMETEK, Inc. Senior Secured Series T	2	22,185,150	19,241,743
57629*KI0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	152,175,310	62,956,240	59,731,377	11/17/2022	06/27/2026	Currency Swap	(6,100,010)	(5,949,924)		G2037*-AE-6	Chanel Ltd EURO SR NT SER A	1	69,056,250	65,681,300
57629*KI0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		40,226,400	37,050,004	11/17/2022	06/27/2026	Currency Swap				K2162#-AG-1	Danish Crown A/S Senior Unsecured Note	2	40,226,400	37,050,004
57629*KI0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		16,557,000	15,306,338	11/17/2022	06/27/2026	Currency Swap				227047-A#-6	Croda International plc Senior Note Ser	1	16,557,000	15,306,338
57629*KI0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		16,499,980	13,599,198	11/17/2022	06/27/2026	Currency Swap				G5264#-AV-1	Kingspan Securities 2017 Gtd Senior Note	2	16,499,980	13,599,198
57629*KI0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		21,832,290	20,056,012	11/17/2022	06/27/2026	Currency Swap				G0488*-AA-2	Atlantica Yield Plc Senior Secured Notes	2	21,832,290	20,056,012
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	259,433,524	19,592,352	17,594,678	11/18/2022	11/30/2026	Currency Swap	(8,011,367)	(7,968,046)			TanQuid GmbH & Co. KG Senior Secured	1	27,603,719	25,562,723
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		38,480,130	35,167,251	11/18/2022	11/30/2026	Currency Swap				031100-H#-2	AMETEK, Inc. Senior Note Kingspan Group PLC Gtd Senior Note	2	38,480,130	35,167,251
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		43,211,840	40,740,755	11/18/2022	11/30/2026	Currency Swap				G5264#-AS-8	Sodiaal International S. Senior Note	2	43,211,840	40,740,755
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		38,781,250	36,772,033	11/18/2022	11/30/2026	Currency Swap				833792-MM-0	Note	2	38,781,250	36,772,033
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,380,720	10,533,334	11/18/2022	11/30/2026	Currency Swap				B9550#-AC-5	Unicore SA Senior Note Series A Electrocomponents plc Senior Notes Series A	2	11,380,720	10,533,334
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		9,436,780	8,652,069	11/18/2022	11/30/2026	Currency Swap				285295-B*-1	Series A	2	9,436,780	8,652,069
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		83,898,000	75,173,276	11/18/2022	11/30/2026	Currency Swap				N3584#-AA-7	GLOBAL TIP FIN B V EUR FAC B LN 17 Capital Fund 5 Partners Fund Borrower Limited - Term Loan Facility	2	83,898,000	75,173,276
57629*KV2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		20,455,303	20,000,000	11/18/2022	11/30/2026	Currency Swap				81809#-MM-6	Covent Garden Group Holdings Limited Senior Note Series B	1	20,455,303	20,000,000
57629*KI4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	85,151,655	(1,363,355)	(2,262,702)	11/18/2022	12/16/2026	Currency Swap	(5,301,855)	(5,258,053)		G2479#-AB-5	Cadogan Estates Ltd Gtd Senior Note	1	3,938,500	2,995,351
57629*KI4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		12,966,660	9,885,593	11/18/2022	12/16/2026	Currency Swap				G1744#-AS-7	Limited Senior Note Series B	2	12,966,660	9,885,593
57629*KI4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		14,767,210	12,280,271	11/18/2022	12/16/2026	Currency Swap				40637C-C*-9	HALMA PLC GBP SER G SR NT	2	14,767,210	12,280,271
57629*KI4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,383,250	28,526,215	11/18/2022	12/16/2026	Currency Swap				227047-B*-7	Croda International plc Senior Note Ser	1	31,383,250	28,526,215
57629*KI4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		33,744,600	31,338,045	11/18/2022	12/16/2026	Currency Swap				G2479#-AC-3	Covent Garden Group Hold Senior Note Ser	1	33,744,600	31,338,045
57629*KI7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	50,040,690	51,367,430	32,396,631	11/21/2022	12/04/2044	Currency Swap	52,430	(584,608)		Q0832*-AK-2	Australian Pacific Airpo Gtd Senior Secured Note Series 2019D	2	51,315,000	32,981,240
57629*KS9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	46,391,010	48,477,086	42,233,811	11/22/2022	07/07/2030	Currency Swap	290,116	(413,433)		Q8749#-AN-5	Westrac Pty Ltd Senior Unsecured Notes	2	48,186,969	42,647,245
57629*KR1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	14,696,148	15,856,602	10,962,516	11/22/2022	03/15/2052	Currency Swap		405,142		Q8059#-AC-7	Registry Finance Pty Ltd Gtd Senior Secured Note Series C	1	15,856,602	10,557,375
57629*KQ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	262,948,369	82,189,219	55,909,403	11/22/2022	10/31/2049	Currency Swap	(16,818,781)	(4,655,954)		G2451Z-MM-4	Cottsway Housing Associa Senior Secured Notes	1	99,008,000	60,565,357
57629*KQ3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		87,243,000	50,106,137	11/22/2022	10/31/2049	Currency Swap				G2711*-AC-3	Curro Places Ltd. Senior Secured Note Series C	1	87,243,000	50,106,137

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*KG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		90,567,937	72,218,584	11/22/2022	10/31/2049	Currency Swap				G30298-AA-0	Eastlands Arena Limited Senior Secured Notes	2	90,567,937	72,218,584
57629*KG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		7,259,136	5,000,000	11/22/2022	10/31/2049	Currency Swap				22982-AA-4	Cubitt Global LLC Senior Secured Notes	6	7,259,136	5,000,000
57629*LH2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	94,480,000	48,024,000	26,397,950	11/23/2022	09/17/2050	Currency Swap	(6,656,000)	(378,160)		G9143-AA-4	Two Rivers Housing Senior Secured Note Series B	2	54,680,000	26,776,110
57629*LH2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		49,681,994	25,623,903	11/23/2022	09/17/2050	Currency Swap				G9143-AA-6	Two Rivers Housing Senior Secured Notes	2	49,681,994	25,623,903
57629*KM2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		17,724,000	15,963,000	11/23/2022	11/01/2052	Currency Swap	(1,239,000)	(7,678)		G7150-AA-4	Plus Dane Housing Limite Senior Secured Notes	1	17,202,000	11,016,403
57629*KM2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		7,354,833	7,653,164	11/23/2022	11/01/2052	Currency Swap				69324Z-MQ-6	PORED II HOLDING I LLC, PORED II HOLDING I OFFSHORE LP and PORED II HOLDCO ARGUS S.A R.L., -Term Loan Series 2022-2	1	7,354,833	7,653,164
57629*MG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	267,719,974	27,928,009	22,656,240	11/23/2022	06/30/2046	Currency Swap	(18,884,811)	(9,293,764)		G92888-AC-9	University of East Angli Senior Secured	1	46,812,820	31,950,004
57629*MG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		52,082,166	39,220,058	11/23/2022	06/30/2046	Currency Swap				G7611-AA-7	Rock Rail East Anglia pl Senior Secured	2	52,082,166	39,220,058
57629*MG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		37,255,120	28,288,517	11/23/2022	06/30/2046	Currency Swap				G88538-AE-6	Oxford Brookes Universit Senior Note Series E	2	37,255,120	28,288,517
57629*MG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		103,354,089	67,413,908	11/23/2022	06/30/2046	Currency Swap				G2564-AA-5	Cross London Trains Limi Senior Secured Notes	2	103,354,089	67,413,908
57629*MG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		60,521,928	40,318,123	11/23/2022	06/30/2046	Currency Swap				G9369-AA-7	Viridor Energy Group Lim Senior Secured Note	2	60,521,928	40,318,123
57629*MG3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		868,564	516,385	11/23/2022	06/30/2046	Currency Swap				G2711-AA-7	Curio Places Ltd. Senior Secured Notes	1	868,564	516,385
57629*MF5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	53,370,000	52,744,500	37,845,187	11/25/2022	01/15/2050	Currency Swap	(3,519,000)	(1,335,120)		G9000-AA-2	Tottenham Hotspur Limite Senior Secured Note Series D	2	56,263,500	39,180,308
57629*ME8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,285,912	14,341,335	11/25/2022	03/15/2047	Currency Swap	(80,108)	27,184		Q80598-AB-9	Registry Finance Pty Ltd Gtd Senior Secured Note Series B	1	14,421,443	9,930,832
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	450,497,671	(18,896,883)	(21,108,838)	11/25/2022	12/31/2038	Currency Swap	(19,426,698)	(21,583,581)		L0175-AA-8	Alpha Trains Finance S.A Term Loan	2	529,815	474,743
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,162,493	10,239,866	11/25/2022	12/31/2038	Currency Swap				LW4375-71-0	VELA ENERGY FINANCE SA-SECURED	2	11,162,493	10,239,866
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		14,008,174	12,655,468	11/25/2022	12/31/2038	Currency Swap				9991DM-TP-6	ITEPESA 3.34%	2	14,008,174	12,655,468
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,754,681	11,381,571	11/25/2022	12/31/2038	Currency Swap				E8T529-AA-2	Sonmedix Espana Finance -SENIOR UNSECURED	2	13,754,681	11,381,571
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		28,553,273	25,942,271	11/25/2022	12/31/2038	Currency Swap				K8808-AA-3	SIKUKI NUUK HARBOUR A/S SR SEC NT	1	28,553,273	25,942,271
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		73,020,563	57,519,068	11/25/2022	12/31/2038	Currency Swap				G7605-AA-5	Roadster Finance DAC Senior Secured Notes	2	73,020,563	57,519,068
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,382,704	2,006,425	11/25/2022	12/31/2038	Currency Swap				E8T529-AC-8	Sonmedix Espana Finance -SENIOR UNSECURED	2	2,382,704	2,006,425
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		45,587,206	35,834,641	11/25/2022	12/31/2038	Currency Swap				F1000-AA-6	Akiem Holding SAS Senior Secured Notes (Amortizing)	2	45,587,206	35,834,641
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		30,938,098	25,554,377	11/25/2022	12/31/2038	Currency Swap				E7134-AA-3	Linia Nou Tram Dos S.A. EUR Term Loan	2	30,938,098	25,554,377
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		37,916,800	29,544,619	11/25/2022	12/31/2038	Currency Swap				E2R15T-AB-7	Bothwell Spain SA-SECURED	2	37,916,800	29,544,619
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		28,840,157	24,857,039	11/25/2022	12/31/2038	Currency Swap					Eliantus Finco Duo, S.A. 2.20 31/12/2038	2	28,840,157	24,857,039
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		20,972,918	18,173,413	11/25/2022	12/31/2038	Currency Swap				L0527-AA-5	BEIP S.a.r.l - EUR Term Loan	2	20,972,918	18,173,413
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		30,629,781	25,611,788	11/25/2022	12/31/2038	Currency Swap				E6168-AA-4	Hypesol Solar Inversione Senior Secured Notes	1	30,629,781	25,611,788
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		44,848,432	33,234,670	11/25/2022	12/31/2038	Currency Swap				E8417U-AA-6	Renovables Atlasol SA-SECURED	2	44,848,432	33,234,670
57629*MDO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		27,910,420	24,440,353	11/25/2022	12/31/2038	Currency Swap					Dunkerque LNG Holding SA Senior Secured Notes	2	27,910,420	24,440,353

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions								
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held					
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value	
57629*MD0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		35,224,000	32,678,603	11/25/2022	12/31/2038	Currency Swap				F2000#-AB-4	C2 Developement Senior Unsecured Notes	2	35,224,000	32,678,603
57629*MD0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,274,353	24,645,853	11/25/2022	12/31/2038	Currency Swap				L0527#-AB-3	BEIP S.a.r.l - 2022 EUR Fixed Senior Term Loan	2	25,274,353	24,645,853
57629*MD0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		30,959,620	30,448,246	11/25/2022	12/31/2038	Currency Swap				X52212-AA-9	MDN Senior Holding, S.A. Senior Secured Floating Rate Term Note Facility	3	30,959,620	30,448,246
57629*MD0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		19,953,945	18,412,432	11/25/2022	12/31/2038	Currency Swap				X52212-AB-7	MDN Senior Holding, S.A. Capex Facility Note	3	19,953,945	18,412,432
57629*MD0	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,437,410	7,503,343	11/25/2022	12/31/2038	Currency Swap				F4927#-AA-0	IM Square Euro SR BDS A	3	8,437,410	7,503,343
57629*MC2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		69,616,475	71,294,310	11/25/2022	12/31/2036	Currency Swap	1,432,835	906,025		66815P-AB-6	Northwestern Hydro Acqui Senior Secured Notes	2	69,616,475	57,760,066
57629*MB4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		11,580,492	16,494,412	11/25/2022	11/15/2034	Currency Swap	1,429,542	1,536,546		J9891#-AB-8	Lilly Japan Financing Co Senior Note Series B	1	15,064,869	9,100,301
57629*MA6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		29,864,118	31,406,083	11/29/2022	11/25/2030	Currency Swap	632,118	291,402		C3298#-AC-4	ALS Canada Limited Senior Unsecured Notes	2	30,773,965	25,877,982
57629*LZ2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,311,589	12,874,833	11/29/2022	01/07/2032	Currency Swap	226,549	112,104		763169-D8-5	Richardson International Senior Secured Debentures Series 2021-2 (CAD)	2	12,648,283	10,500,895
57629*LY5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		77,746,500	82,173,000	11/30/2022	11/24/2056	Currency Swap	(4,426,500)	(112,596)		G5702*-AB-9	MDS Group Investments Ltd Senior Unsecured Notes	1	86,599,500	36,630,916
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		168,912,786	28,024,518	12/07/2022	06/30/2032	Currency Swap	(3,540,474)	(3,992,108)		F1068#-AG-2	Bonduelle SCA Gtd Senior Note	2	31,564,992	28,682,493
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		31,523,466	27,793,690	12/07/2022	06/30/2032	Currency Swap				K8553*-AA-0	Scandlines ApS Senior Secured	2	31,523,466	27,793,690
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		68,535,928	57,218,253	12/07/2022	06/30/2032	Currency Swap				E3075#-AA-3	Club Atletico de Madrid Euro Fac A Ln	2	68,535,928	57,218,253
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,125,501	10,110,679	12/07/2022	06/30/2032	Currency Swap				X7760Y-AB-6	Sisu Industrial Energy Solutions Oy	2	10,125,501	10,110,679
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,272,080	8,228,630	12/07/2022	06/30/2032	Currency Swap				E3075#-AB-1	Club Atletico de Madrid - 2022 EUR Fixed Senior Term Loan	2	10,272,080	8,228,630
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		5,633,685	4,683,404	12/07/2022	06/30/2032	Currency Swap				X9273*-AA-3	AUTOSTRADA WIELKOPOLSKA TERM LOAN	2	5,633,685	4,683,404
57629*LX7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		20,455,303	20,000,000	12/07/2022	06/30/2032	Currency Swap				81809#-MN-6	17 Capital Fund 5 Partners Fund Borrower Limited - Term Loan Facility	1	20,455,303	20,000,000
57629*MK4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		48,089,172	45,189,972	12/08/2022	08/15/2028	Currency Swap	(2,320,668)	(4,114,505)		24906P-B*-9	DENTSPLY SIRONA Inc. Senior Note Ser	2	47,510,640	48,984,936
57629*MK4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		1,377,520	1,234,332	12/08/2022	08/15/2028	Currency Swap				L0175#-AB-8	Alpha Trains Finance S.A Term Loan	2	1,377,520	1,234,332
57629*LI9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		21,552,182	20,252,982	12/08/2022	08/15/2026	Currency Swap	(1,037,658)	(1,443,553)		24906P-A*-0	DENTSPLY SIRONA Inc. Senior Note Ser	2	21,290,640	22,237,188
57629*LI9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		5,725,579	5,130,427	12/08/2022	08/15/2026	Currency Swap				L0175#-AB-8	Alpha Trains Finance S.A Term Loan	2	5,725,579	5,130,427
57629*LV1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		16,711,867	18,598,276	12/09/2022	09/20/2027	Currency Swap	49,627	(67,457)		C4931*-BC-6	Keyera Partnership Gtd Senior Note	2	18,548,650	15,938,133
57629*LU3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		43,621,500	45,271,800	12/09/2022	06/30/2026	Currency Swap	240,500	193,465		Q3973*-AB-5	GPC Asia Pacific Holding Senior Unsecured Notes	2	45,031,300	41,660,466
57629*LT6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		156,371,780	27,608,180	12/09/2022	12/19/2025	Currency Swap	(2,867,980)	(2,874,480)		G4691#-AD-7	IMI PLC Senior Note	2	30,476,160	30,113,798
57629*LT6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		26,139,440	24,274,621	12/09/2022	12/19/2025	Currency Swap				F8568#-AE-9	Sonepar S.A. Senior Note Ser	2	26,139,440	24,274,621
57629*LT6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		13,111,020	12,232,502	12/09/2022	12/19/2025	Currency Swap				L8367#-AD-5	Shurgard Luxembourg Sarl Gtd Senior Note	2	13,111,020	12,232,502
57629*LT6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		65,869,790	64,865,411	12/09/2022	12/19/2025	Currency Swap				N7660#-AR-8	SHV NEDERLAND BV EURO TERM LN	2	65,869,790	64,865,411
57629*LT6	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,673,600	23,175,520	12/09/2022	12/19/2025	Currency Swap				479142-D8-7	Johnson Matthey PLC Senior Note Series A	1	25,673,600	23,175,520

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
57629*LS8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	3,985,450	4,294,020	3,252,473	12/12/2022	01/12/2032	Currency Swap	47,790	(47,680)	Q2600#-AE-0	Coates Group Pty Ltd Senior Note Series 2022-E (AUD)	2	4,246,230	3,300,153
57629*LRO	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	16,574,646	19,964,979	15,026,861	12/12/2022	09/30/2033	Currency Swap	396,302	(513,514)	W9792#-AB-0	Vartan Gas AB - 12 Year Fixed Rate	2	19,568,676	15,540,375
57629*LM2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	29,639,898	20,299,731	14,794,981	12/12/2022	12/17/2031	Currency Swap	731,054	(713,018)	W9792#-AA-2	Vartan Gas AB - 10 Year Fixed Rate	2	19,568,676	15,507,999
57629*LM2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	14,823,111	12,203,016	12,203,016	12/12/2022	12/17/2031	Currency Swap			X7552#-AA-7	SISU Industrial Energy Solutions 0Y-SEK Fixed Term Loan	2	14,823,111	12,203,016
57629*LQ2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	36,170,441	32,877,951	32,553,547	12/13/2022	12/11/2029	Currency Swap	(1,330,919)	(3,149,363)	116794-B#-6	Bruker Corporation Senior Unsecured Notes	2	34,208,870	35,702,910
57629*LQ2	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		1,377,520	1,234,332	12/13/2022	12/11/2029	Currency Swap			L0175#-AB-8	Alpha Trains Finance S.A Term Loan	2	1,377,520	1,234,332
57629*LP4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	56,021,899	18,074,537	16,782,851	12/13/2022	11/17/2026	Currency Swap	256,430	53,897	C4931#-BA-0	Keyera Corp Senior Note Ser	2	17,818,107	16,728,955
57629*LP4	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		39,041,704	37,394,944	12/13/2022	11/17/2026	Currency Swap			C3346#-AA-8	Secured FA MGT Limited Partnersh Senior	2	39,041,704	37,394,944
57629*MH1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	51,446,945	47,678,945	50,394,352	12/13/2022	10/08/2025	Currency Swap	(1,967,455)	(2,603,912)	Q1297#-AJ-7	CSL Finance Pty Ltd-GTD SENIOR NOTE SERIES B CHF	1	49,646,400	52,998,264
57629*MH1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		7,356,104	6,591,466	12/13/2022	10/08/2025	Currency Swap			L0175#-AB-8	Alpha Trains Finance S.A Term Loan	2	7,356,104	6,591,466
57629*LN9	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	42,388,280	44,418,760	41,271,995	12/14/2022	08/27/2025	Currency Swap	(520,540)	(593,793)	K3752#-AH-1	Copenhagen Airports A/S-SENIOR NOTE	2	44,939,300	41,865,788
57629*MJ7	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	15,496,055	21,538,719	15,208,656	12/14/2022	03/15/2027	Currency Swap	2,319,295	2,184,940	G294A#-AD-1	Dyson Finance Limited Gtd Senior Note	1	19,219,425	13,023,717
57629*LM1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1	24,566,000	21,941,175	24,868,868	12/14/2022	05/02/2025	Currency Swap	(718,000)	(731,182)	G0567#-AA-4	Arqiva Broadcast Parent Limited - GBP Subordinated Term Loan	3	22,659,175	25,600,050
57629*LM1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		496,322	295,077	12/14/2022	05/02/2025	Currency Swap			G2711#-AA-7	Curio Places Ltd. Senior Secured Notes	1	496,322	295,077
57629*LM1	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	1		9,610,186	10,000,000	12/14/2022	05/02/2025	Currency Swap			69324Z-MQ-6	PCRED II HOLDING I LLC, PCRED II HOLDING I OFFSHORE LP and PCRED II HOLDCO ARGUS S.A R.L., -Term Loan Series 2022-2	1	9,610,186	10,000,000
57629*LL3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	79,335,260	30,900,490	24,123,291	12/14/2022	08/28/2025	Currency Swap	(2,332,060)	(2,328,414)	G6750#-AC-6	1887 CO LTD GBP SER C SR SECD NT	2	33,232,550	26,451,705
57629*LL3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		25,237,960	20,249,369	12/14/2022	08/28/2025	Currency Swap			G9302#-AA-3	University of West Londo Senior Secured	1	25,237,960	20,249,369
57629*LL3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		19,905,200	17,373,939	12/14/2022	08/28/2025	Currency Swap			G1696#-BK-1	Bunzl Finance plc-GTD SENIOR NOTE SERIES C -GBP	2	19,905,200	17,373,939
57629*LL3	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		14,996,160	15,565,235	12/14/2022	08/28/2025	Currency Swap			G3301#-AA-1	FIL Limited Senior Unsecured Notes	2	14,996,160	15,565,235
57629*LK5	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	20,000,000	20,298,000	21,183,108	01/31/2023	01/31/2033	Currency Swap	(1,432,000)	(1,890,433)	N3000#-AB-3	Cooperatie Koninklijke Cosun U.A - EUR Senior Unsecured Term Loan	2	21,790,000	23,073,541
57629*LU8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2	18,445,000	8,602,645	8,641,853	06/27/2023	06/27/2030	Currency Swap	(308,000)	(611,880)	877409-A#-9	Taylor Wimpey PLC Senior Notes	2	8,910,645	9,253,733
57629*LU8	Evergreen basket of USD Fixed Rate ABS Bank Loans and Corporate Bonds	2		14,417,912	11,556,307	06/27/2023	06/27/2030	Currency Swap			Z03502-21-3	Perusahaan Listrik Negar-SENIOR UNSECURED	2	14,417,912	11,556,307
57629*MIW8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	82,552,141	45,837,500	37,618,627	02/24/2023	02/26/2025	TRS Bond Index		(8,218,873)	14308#-MI-7	Carlyle Aviation Runway PDP Fund LP - Revolving Promissary Note	1	45,837,500	45,837,500
57629*MIW8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		29,933,699	30,024,780	02/24/2023	02/26/2025	TRS Bond Index			14316#-AA-7	Carlyle Global Market St-CGMS 2021-7A A1	1	29,933,699	30,024,780
57629*MIW8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		24,658,209	25,129,900	02/24/2023	02/26/2025	TRS Bond Index			40639#-AA-7	Halseypoint Clo 6 Ltd-HLSY 2022-6A A1	1	24,658,209	25,129,900
57629*MVO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	13,310,000	22,741,100	22,422,205	02/22/2024	02/22/2034	Currency Swap	(596,200)	(760,802)	912810-QK-7	US TREASURY N/B-BOND	1	23,337,300	23,183,008
57629*MZ1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	2,097,333	3,040,154	2,401,264	04/04/2023	03/05/2038	Currency Swap	(53,071)	(52,442)	G6260#-AA-9	MORhomes plc Senior Secured Notes	2	3,093,226	2,453,706
57629*NA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	38,045,000	38,062,500	36,028,228	05/31/2023	06/30/2043	Currency Swap	539,000	(2,382,905)	E5000#-AB-0	Espai Barca FT - Senior Unsecured Note Series A2	2	37,523,500	38,411,132
57629*NA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		2,103,397	1,604,400	05/31/2023	06/30/2043	Currency Swap			G2044#-AA-5	Channel Link Enterprises Senior Secured	2	2,103,397	1,604,400

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*NB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	27,175,000	27,187,500	26,256,707	05/31/2023	06/30/2047	Currency Swap	385,000	(2,750,031)	E5000*-AC-8	Espai Barca FT - Senior Unsecured Note Series A3	2	26,802,500	29,006,739
57629*NB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	2,103,397	2,103,397	1,604,400	05/31/2023	06/30/2047	Currency Swap			G2044*-AA-5	Channel Link Enterprises Senior Secured	2	2,103,397	1,604,400
57629*MT5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	52,420,800	51,589,500	49,644,873	02/08/2023	10/01/2052	Currency Swap	19,560	(4,211,183)	08778P-AA-6	Bon Secours Mercy Health Senior Secured Notes	1	51,569,940	53,856,056
57629*MT5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		5,113,826	5,000,000	02/08/2023	10/01/2052	Currency Swap			81809#-MN-6	17 Capital Fund 5 Partners Fund Borrower Limited - Term Loan Facility	1	5,113,826	5,000,000
57629*MU2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	30,085,000	29,295,000	17,279,176	02/08/2023	02/01/2053	Currency Swap	(1,520,000)	(1,161,425)	G7150*-AB-2	Plus Dane Housing Limite Senior Secured Notes (Delayed Tranche)	1	30,815,000	18,440,601
57629*MU2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,642,968	2,284,874	02/08/2023	02/01/2053	Currency Swap			G1128*-AC-2	BIRMINGHAM ARPT FIN PLC SR NT	2	3,642,968	2,284,874
57629*MIX6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	17,952,000	18,130,500	17,628,757	05/22/2023	05/22/2033	Currency Swap	(265,200)	(1,085,772)	G9006#-AM-8	Transmission Finance DAC Senior Secured Notes	2	18,395,700	18,714,530
57629*MY4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	36,630,000	35,862,000	34,504,570	03/31/2023	03/31/2033	Currency Swap	(1,296,000)	(1,958,814)	G9720#-AA-9	Wireless Infrastructure Senior Secured Notes	2	37,158,000	36,463,384
57629*NF4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	69,201,121	70,945,391	71,042,654	03/21/2023	03/27/2026	Currency Forward		566,311	912810-QK-7	US TREASURY N/B-BOND	1	70,945,391	70,476,343
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	183,671,875	9,940,395	11,860,288	05/23/2024	05/23/2025	TRS Bond Index		2,044,664	571748-AZ-5	Marsh & McLennan Cos Inc-SR UNSECURED	1	9,940,395	9,815,623
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		10,550,000	10,572,830	05/23/2024	05/23/2025	TRS Bond Index			74983A-AC-7	RR 19 Ltd-RRAM 2021-19A A2	1	10,550,000	10,572,830
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		8,511,172	8,383,480	05/23/2024	05/23/2025	TRS Bond Index			780082-AD-5	Royal Bank of Canada-SUBORDINATED	1	8,511,172	8,383,480
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,228,847	11,628,098	05/23/2024	05/23/2025	TRS Bond Index			74340X-BH-3	Prologis LP-SENIOR UNSECURED	1	12,228,847	11,628,098
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		14,000,000	14,011,060	05/23/2024	05/23/2025	TRS Bond Index			67592R-AC-7	Wells Fargo-OCT53 2021-1A B	1	14,000,000	14,011,060
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		28,499,419	26,127,474	05/23/2024	05/23/2025	TRS Bond Index			911312-AJ-5	UNITED PARCEL SERVICE IN-SENIOR UNSECURED NOTE	1	28,499,419	26,127,474
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		18,192,565	17,003,067	05/23/2024	05/23/2025	TRS Bond Index			06654D-AB-3	Banner Health-UNSECURED	1	18,192,565	17,003,067
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		3,880,214	3,829,518	05/23/2024	05/23/2025	TRS Bond Index			06051G-GA-1	BANK OF AMERICA CORP-SENIOR UNSECURED	1	3,880,214	3,829,518
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		15,000,000	15,026,835	05/23/2024	05/23/2025	TRS Bond Index			67102Q-AZ-1	QHA Credit Partners VII -SERIES 2012-7A CLASS BR3	1	15,000,000	15,026,835
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		25,000,000	25,440,900	05/23/2024	05/23/2025	TRS Bond Index			06763K-AE-9	Barings Middle Market CL-BMM 2023-1A A2	1	25,000,000	25,440,900
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		22,000,000	22,050,336	05/23/2024	05/23/2025	TRS Bond Index			06763R-AC-8	Barings Loan Partners CL-BABSN LP-1A C	1	22,000,000	22,050,336
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,417,335	13,741,459	05/23/2024	05/23/2025	TRS Bond Index			64033D-AB-4	MELNET STUDENT LOAN TRUS-SERIES 2013-3A CLASS B	1	13,417,335	13,741,459
57629*ND9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		13,000,000	13,101,816	05/23/2024	05/23/2025	TRS Bond Index			59801A-AS-3	MidOcean Credit CLO XI L-MIDO 2022-11A DR	2	13,000,000	13,101,816
57629*NE7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	56,266,206	75,000,000	77,883,234	04/26/2024	04/29/2025	TRS Bond Index		2,883,234	46143#-MY-0	Invesco CMI Investments MM, LLC - Senior Secured Notes - Term Loan Series 2022-10	2	75,000,000	75,000,000
57629*MQ1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	207,031,250	46,240,000	25,006,387	06/08/2023	06/11/2025	TRS Bond Index		(21,233,613)	14314Z-MN-3	CARLYLE SECURED LENDING III SPV, - Senior Secured Loan	2	46,240,000	46,240,000
57629*MQ1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		8,622,699	8,510,040	06/08/2023	06/11/2025	TRS Bond Index			06051G-GA-1	BANK OF AMERICA CORP-SENIOR UNSECURED	1	8,622,699	8,510,040
57629*MQ1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		50,000,000	50,000,000	06/08/2023	06/11/2025	TRS Bond Index			15102Z-MM-6	CELF SPV LLC - Revolving Senior Secured Term Facility	1	50,000,000	50,000,000
57629*MQ1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		75,000,000	75,829,050	06/08/2023	06/11/2025	TRS Bond Index			000849-AA-7	ABPCI Direct Lending Fun-ABPCI 2023-16A A	1	75,000,000	75,829,050
57629*MQ1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		39,294,990	40,361,280	06/08/2023	06/11/2025	TRS Bond Index			82808E-AA-9	Silver Point CLO 2 Ltd-SPCLO 2023-2A A1	1	39,294,990	40,361,280
57629*MNB	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	18,018,000	18,377,700	17,290,055	06/20/2023	06/20/2030	Currency Swap	336,600	(343,488)	L3551#-AN-0	Ferrero International SA Gtd Senior Note Series B	2	18,041,100	17,573,543

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
57629*MM0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	40,404,000	41,210,600	39,784,574	06/20/2023	06/20/2033	Currency Swap	754,800	(1,294,813)	L3551#-AQ-3	Ferrero International SA Gtd Senior Note Series D	2	40,455,800	41,079,386
57629*NC1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	18,690,000	18,645,000	18,860,362	05/10/2023	05/12/2030	Currency Swap	(273,000)	(882,017)	L3009#-AA-6	Ergea Group S.A r.L. Guaranteed Secured Senior Notes Series A	2	18,918,000	19,742,379
57629*NJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	25,563,500	25,340,050	24,252,410	05/16/2023	05/16/2033	Currency Swap	(352,600)	(1,438,220)	X2004#-AA-2	Ciconia Investments Limi Senior Secured Notes	2	25,692,650	25,690,630
57629*MP3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	25,165,372	25,922,307	25,057,369	12/27/2023	12/29/2030	Currency Swap	17,872	(1,153,275)	K3752#-AH-3	Copenhagen Airports Demm Senior Secured PP Note Delayed Draw	2	25,904,435	26,210,644
57629*NJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	250,000,000	3,046,092	(34,035,599)	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared		(37,081,691)	18685#-MM-9	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	3,046,092	3,046,092
57629*NJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		35,525,000	35,525,000	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			78466Z-MM-4	Cliffwater Corporate Lending Fund - Senior Secured Revolving Credit Facility	1	35,525,000	35,525,000
57629*NJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		22,600,000	22,907,812	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			06793Z-AE-3	SSS CREDIT STRATEGIES VII ICAV - Senior Secured Revolving Loan Facility	1	22,600,000	22,907,812
57629*NJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		180,000,000	180,000,000	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			15102Z-MM-6	CELIF SPV LLC - Revolving Senior Secured Term Facility	1	180,000,000	180,000,000
57629*NJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		12,375,000	12,375,000	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			78466Z-MM-4	PIONEERS GATE LLC 2023-9 OR SSS CREDIT STRATEGIES VII ICAV - Senior Secured Revolving Loan Facility	1	12,375,000	12,375,000
57629*NH0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	200,000,000	205,000,000	175,507,920	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared		(29,492,080)	90139#-MY-8	Rad CLO 16 Ltd-RAD 2022-16A A1R	1	205,000,000	205,000,000
57629*NG2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	190,000,000	50,000,000	21,789,674	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared		(28,544,226)	75009L-AL-0	Carlyle Aviation Runway PDP Fund LP - Revolving Promissary Note	1	50,000,000	50,333,900
57629*NG2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		58,000,000	58,000,000	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			14308#-MM-7	NXT Capital Structured Note I, LLC - Class A Secured Float Rate Revolving Loan	1	58,000,000	58,000,000
57629*NG2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		64,000,000	64,000,000	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			67080B-MM-6	TREZ CAPITAL MANHATTAN BRIDGE LP - Secured Term Loan Facility - Series 2022-3	1	64,000,000	64,000,000
57629*NG2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		29,591,838	29,591,838	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			89532Z-MM-9	CHA Credit Solutions Master Fund I	1	29,591,838	29,591,838
57629*NM9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1	100,000,000	30,383,911	15,291,325	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared		(15,092,586)	67098#-MM-7	SPV, L.P. - Fund I Revolver	1	30,383,911	30,383,911
57629*NM9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		65,045,030	67,683,426	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			68324Z-MQ-6	PCRED II HOLDING I LLC, PCRED II HOLDING I OFFSHORE LP and PCRED II HOLDCO ARGUS S.A R.L., -Term Loan Series 2022-2	1	65,045,030	67,683,426
57629*NM9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1		50,000,000	50,356,800	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			29003E-AJ-4	Elmwood CLO VIII Ltd-ELMWB 2021-1A AR	1	50,000,000	50,356,800
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2	150,000,000	10,000,000	(12,432,463)	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared		(22,589,893)	87251P-AJ-6	TCW CLO 2023-2 Ltd-TCW 2023-2A D1	2	10,000,000	10,167,430
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		20,000,000	20,133,560	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			75009L-AL-0	Rad CLO 16 Ltd-RAD 2022-16A A1R	1	20,000,000	20,133,560
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		9,718,658	10,015,690	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			48661Q-AA-9	Rad CLO 9 Ltd-RAD 2020-9A A1	1	9,718,658	10,015,690
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,000,000	10,014,160	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			12511A-AC-8	CBAM Ltd-CBAM 2020-13A B1	1	10,000,000	10,014,160
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,000,000	10,004,930	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			87246M-AU-6	TICP CLO VI 2016-2 Ltd-TICP 2016-6A B2	1	10,000,000	10,004,930
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,900,000	10,054,317	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			26833R-AC-2	ECMC Group Student Loan -ECMC 2021-1A B	1	10,900,000	10,054,317
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,000,000	10,005,530	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			12563Y-AC-3	CIFC Funding 2021-II-CIFC 2021-2A B	1	10,000,000	10,005,530
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		12,000,000	12,353,868	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			38174Z-AJ-4	GoLub Capital Partners C-GOCAP 2019-42RA DR	2	12,000,000	12,353,868
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,750,000	11,894,960	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			067934-AG-4	Barings Middle Market CL-BMM 2023-11A C	2	11,750,000	11,894,960

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,000,000	11,296,989	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			000842-AJ-3	ABPCI DIRECT LENDING FUND CLO LTD Barings Middle Market CL-BMM 2023-1A C	2	11,000,000	11,296,989
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,000,000	11,382,052	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			06763K-AJ-8	Nelnet Student Loan Trus-NSLT 2018-3A B	2	11,000,000	11,382,052
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		11,015,261	11,017,047	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			64034A-AD-5	PKBLU 2023-3A D-PKBLU 2023-3A D	1	11,015,261	11,017,047
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,000,000	10,298,610	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			70019A-AJ-8	OCTAGON 67 LTD-OCT67 2023-1A D	2	10,000,000	10,298,610
57629*NL1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	2		10,000,000	10,250,230	04/10/2023	04/10/2053	Interest Rate Swap - SOFR CME cleared			67571L-AJ-0	United States Treasury N-UNSECURED	2	10,000,000	10,250,230
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z	300,000,000	181,850,282	148,386,397	08/07/2023	08/07/2043	Interest Rate Swap - SOFR CME cleared		2,339,627	912810-TG-3	Loan Asset Issuer LLC - Series 2023 NG-1A Class A Asset Backed Notes	1	181,850,282	146,046,770
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z		98,608,100	96,261,657	08/07/2023	08/07/2043	Interest Rate Swap - SOFR CME cleared			53950U-AA-0	Loan Asset Issuer LLC - Series 2022 NG-2 Class A Asset Backed Notes	1	98,608,100	96,261,657
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z		50,000,000	51,610,133	08/07/2023	08/07/2043	Interest Rate Swap - SOFR CME cleared			53946H-AA-6	US TREASURY N/B-UNSECURED	1	50,000,000	51,610,133
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z	615,000,000	283,106,425	217,391,812	08/07/2023	08/07/2042	Interest Rate Swap - SOFR CME cleared		3,523,794	912810-RU-4	United States Treasury N-UNSECURED	1	283,106,425	213,868,019
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z		228,042,588	183,144,525	08/07/2023	08/07/2042	Interest Rate Swap - SOFR CME cleared			912810-TG-3	United States Treasury N-UNSECURED	1	228,042,588	183,144,525
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z		223,481,736	179,481,634	08/07/2023	08/07/2042	Interest Rate Swap - SOFR CME cleared			912810-TG-3	Atlas Securitized Products Funding 1 LP - Revolver A1	1	223,481,736	179,481,634
Need to File with the NAIC	Evergreen Basket of Floating Corporate Bonds	1Z		50,000,000	51,610,133	08/07/2023	08/07/2042	Interest Rate Swap - SOFR CME cleared			53946H-AA-6	Atlas Securitized Products Funding 1 LP - Revolver A1	1	50,000,000	51,610,133
Need to File with the NAIC	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1Z	270,000,000	280,180,799	270,322,737	02/05/2024	02/05/2054	Interest Rate Swap - SOFR CME cleared		(15,799,342)	04940J-AB-9	Atlas Securitized Products Funding 1 LP - Revolver A1	1	280,180,799	286,122,079
Need to File with the NAIC	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corporate Bonds	1Z	270,000,000	303,562,899	294,533,571	02/05/2024	02/05/2054	Interest Rate Swap - SOFR CME cleared		(15,466,429)	04940J-AB-9	Atlas Securitized Products Funding 1 LP - Revolver A1	1	303,562,899	310,000,000
999999999 - Totals				35,788,669,220	26,100,759,337	XXX	XXX	XXX	(814,906,535)	(6,892,032,622)	XXX	XXX	XXX	36,603,575,756	32,992,791,959

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STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 2

Replication (Synthetic Asset) Transactions Open

	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Year To Date	
	1 Number of Positions	2 Total Replication (Synthetic Asset) Transactions Statement Value	3 Number of Positions	4 Total Replication (Synthetic Asset) Transactions Statement Value	5 Number of Positions	6 Total Replication (Synthetic Asset) Transactions Statement Value	7 Number of Positions	8 Total Replication (Synthetic Asset) Transactions Statement Value	9 Number of Positions	10 Total Replication (Synthetic Asset) Transactions Statement Value
1. Beginning Inventory	206	38,589,744,830	208	32,147,729,162					206	38,589,744,830
2. Add: Opened or Acquired Transactions.....	4	620,000,000	4	719,551,648					8	1,339,551,648
3. Add: Increases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX	680,781,642	XXX	3,789,285,872	XXX		XXX		XXX	4,470,067,514
4. Less: Closed or Disposed of Transactions.....	2	122,986,689	4	787,608,676					6	910,595,365
5. Less: Positions Disposed of for Failing Effectiveness Criteria.....										
6. Less: Decreases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX	7,619,810,621	XXX	80,288,786	XXX		XXX		XXX	7,700,099,407
7. Ending Inventory	208	32,147,729,162	208	35,788,669,220					208	35,788,669,220

STATEMENT AS OF JUNE 30, 2024 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - VERIFICATION

Verification of Book/Adjusted Carrying Value, Fair Value and Potential Exposure of all Open Derivative Contracts

	Book/Adjusted Carrying Value Check
1. Part A, Section 1, Column 14.....	6,953,973,895
2. Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance.....	.....
3. Total (Line 1 plus Line 2)	6,953,973,895
4. Part D, Section 1, Column 6	22,876,930,044
5. Part D, Section 1, Column 7	(15,920,138,843)
6. Total (Line 3 minus Line 4 minus Line 5)	(2,817,306)
	Fair Value Check
7. Part A, Section 1, Column 16	876,847,809
8. Part B, Section 1, Column 13	2,817,307
9. Total (Line 7 plus Line 8)	879,665,115
10. Part D, Section 1, Column 9	22,892,442,749
11. Part D, Section 1, Column 10	(22,012,777,634)
12. Total (Line 9 minus Line 10 minus Line 11) .....	.....
	Potential Exposure Check
13. Part A, Section 1, Column 21	5,896,684,778
14. Part B, Section 1, Column 20	36,105,082
15. Part D, Section 1, Column 12	5,932,789,860
16. Total (Line 13 plus Line 14 minus Line 15) .....	.....

SCHEDULE E - PART 2 - VERIFICATION

(Cash Equivalents)

	1	2
	Year To Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	8,139,293,764	4,623,151,857
2. Cost of cash equivalents acquired	97,601,502,271	249,758,322,676
3. Accrual of discount	129,561,261	276,751,847
4. Unrealized valuation increase/(decrease)	(697)	(142,540)
5. Total gain (loss) on disposals	(3,420,152)	(60,563)
6. Deduct consideration received on disposals	103,093,885,622	246,518,729,513
7. Deduct amortization of premium		
8. Total foreign exchange change in book/adjusted carrying value		
9. Deduct current year's other than temporary impairment recognized		
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)	2,773,050,825	8,139,293,764
11. Deduct total nonadmitted amounts		
12. Statement value at end of current period (Line 10 minus Line 11)	2,773,050,825	8,139,293,764