



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

QUARTERLY STATEMENT

AS OF JUNE 30, 2024

OF THE CONDITION AND AFFAIRS OF THE

MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NAIC Group Code

0435

0435

NAIC Company Code

63312

Employer's ID Number

13-1935920

(Current)

(Prior)

Organized under the Laws of

Ohio

, State of Domicile or Port of Entry

OH

Country of Domicile

United States of America

Licensed as business type:

Life, Accident and Health [X] Fraternal Benefit Societies []

Incorporated/Organized

12/29/1961

Commenced Business

08/13/1963

Statutory Home Office

191 Rosa Parks Street

Cincinnati, OH, US 45202

(Street and Number)

(City or Town, State, Country and Zip Code)

Main Administrative Office

191 Rosa Parks Street

Cincinnati, OH, US 45202

(Street and Number)

(City or Town, State, Country and Zip Code)

513-361-9000

(Area Code) (Telephone Number)

Mail Address

Post Office Box 5420

Cincinnati, OH, US 45201

(Street and Number or P.O. Box)

(City or Town, State, Country and Zip Code)

Primary Location of Books and Records

191 Rosa Parks Street

Cincinnati, OH, US 45202

(Street and Number)

(City or Town, State, Country and Zip Code)

513-361-9000

(Area Code) (Telephone Number)

Internet Website Address

www.massmutualascend.com

Statutory Statement Contact

Robert Mayhew Earle II

513-361-9077

(Name)

(Area Code) (Telephone Number)

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513-345-9484

(E-mail Address)

(FAX Number)

OFFICERS

President

Mark Francis Muething

Treasurer

Brian Patrick Sponaugle

Secretary

John Paul Gruber

Appointed Actuary

Isaac Cezar Hall

OTHER

Donna Marie Carrelli

Michael Harrison Haney

Dominic Lusean Blue

DIRECTORS OR TRUSTEES

Dominic Lusean Blue

Geoffrey James Craddock

Sears Andrew Merritt

Eric William Partlan

Elizabeth Ward Chicares

Roger William Crandall

Mark Francis Muething

Arthur William Wallace III

Susan Marie Cicco

Paul Anthony LaPiana

Michael James O'Connor

State of

Ohio

County of

Hamilton

SS:

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.

Mark Francis Muething

President

John Paul Gruber

Secretary

Brian Patrick Sponaugle

Treasurer

Subscribed and sworn to before me this

day of

August 2024

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.....

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	35,781,191,716		35,781,191,716	34,972,253,060
2. Stocks:				
2.1 Preferred stocks	273,934,653		273,934,653	201,026,229
2.2 Common stocks	778,647,734		778,647,734	716,418,595
3. Mortgage loans on real estate:				
3.1 First liens	4,690,293,526		4,690,293,526	4,256,509,561
3.2 Other than first liens.....			0	0
4. Real estate:				
4.1 Properties occupied by the company (less \$ encumbrances)			0	0
4.2 Properties held for the production of income (less \$ encumbrances)			0	0
4.3 Properties held for sale (less \$ encumbrances)			0	0
5. Cash (\$ (139,105,418)), cash equivalents (\$ 2,775,417,122) and short-term investments (\$506,457,996)	3,142,769,700		3,142,769,700	2,211,326,604
6. Contract loans (including \$ premium notes)	28,810,934		28,810,934	29,952,551
7. Derivatives	844,380,862		844,380,862	771,436,338
8. Other invested assets	1,557,693,028	10,530,524	1,547,162,504	1,407,752,675
9. Receivables for securities	101,380,520		101,380,520	165,416,503
10. Securities lending reinvested collateral assets			0	0
11. Aggregate write-ins for invested assets	0	0	0	0
12. Subtotals, cash and invested assets (Lines 1 to 11)	47,199,102,673	10,530,524	47,188,572,149	44,732,092,116
13. Title plants less \$ charged off (for Title insurers only)			0	0
14. Investment income due and accrued	594,052,640		594,052,640	528,460,439
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection	803,649	13,707	789,942	1,059,361
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ earned but unbilled premiums)	7,169,343	3,161,511	4,007,832	4,562,423
15.3 Accrued retrospective premiums (\$) and contracts subject to redetermination (\$)			0	0
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers	1,243,604		1,243,604	2,547,295
16.2 Funds held by or deposited with reinsured companies			0	0
16.3 Other amounts receivable under reinsurance contracts	106,206,570		106,206,570	451,644,041
17. Amounts receivable relating to uninsured plans			0	0
18.1 Current federal and foreign income tax recoverable and interest thereon	71,769,055		71,769,055	16,025,216
18.2 Net deferred tax asset	361,674,042	25,517,527	336,156,515	272,753,525
19. Guaranty funds receivable or on deposit	1,999,383		1,999,383	2,034,538
20. Electronic data processing equipment and software			0	0
21. Furniture and equipment, including health care delivery assets (\$)	4,928,355	4,928,355	0	0
22. Net adjustment in assets and liabilities due to foreign exchange rates			0	0
23. Receivables from parent, subsidiaries and affiliates	969,203		969,203	719,602
24. Health care (\$) and other amounts receivable			0	0
25. Aggregate write-ins for other than invested assets	623,346,415	112,020,523	511,325,892	533,545,687
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	48,973,264,932	156,172,147	48,817,092,785	46,545,444,243
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts	716,476,065		716,476,065	443,319,567
28. Total (Lines 26 and 27)	49,689,740,997	156,172,147	49,533,568,850	46,988,763,810
DETAILS OF WRITE-INS				
1101.				
1102.				
1103.				
1198. Summary of remaining write-ins for Line 11 from overflow page	0	0	0	0
1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)	0	0	0	0
2501. Admitted Disallowed IMR	349,912,042	105,772,456	244,139,586	271,533,895
2502. Company-owned life insurance	226,413,629		226,413,629	223,142,978
2503. Accrued contractual fee income	28,824,760		28,824,760	32,372,894
2598. Summary of remaining write-ins for Line 25 from overflow page	18,195,984	6,248,067	11,947,917	6,495,920
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	623,346,415	112,020,523	511,325,892	533,545,687

LIABILITIES, SURPLUS AND OTHER FUNDS

	1 Current Statement Date	2 December 31 Prior Year
1. Aggregate reserve for life contracts \$33,315,773,334 less \$ included in Line 6.3 (including \$ 528,685 Modco Reserve)	33,315,773,334	30,159,722,538
2. Aggregate reserve for accident and health contracts (including \$ Modco Reserve)	52,802,145	52,438,219
3. Liability for deposit-type contracts (including \$ Modco Reserve).....	793,300,037	787,970,274
4. Contract claims:		
4.1 Life	162,808,395	164,654,288
4.2 Accident and health	592,767	622,620
5. Policyholders' dividends/refunds to members \$ and coupons \$ due and unpaid		0
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)		
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 \$ 17,166 accident and health premiums	176,062	94,251
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 \$ 0 is for medical loss ratio rebate per the Public Health Service Act		
9.3 Other amounts payable on reinsurance, including \$ 430,872 assumed and \$ 70,587,937 ceded	71,018,809	684,959
9.4 Interest Maintenance Reserve		0
10. Commissions to agents due or accrued-life and annuity contracts \$ 4,144,054 , accident and health \$ and deposit-type contract funds \$	4,144,054	7,033,605
11. Commissions and expense allowances payable on reinsurance assumed		
12. General expenses due or accrued	50,218,420	56,305,815
13. Transfers to Separate Accounts due or accrued (net) (including \$ accrued for expense allowances recognized in reserves, net of reinsured allowances)		0
14. Taxes, licenses and fees due or accrued, excluding federal income taxes		0
15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses)		
15.2 Net deferred tax liability		
16. Unearned investment income	297,199	290,364
17. Amounts withheld or retained by reporting entity as agent or trustee	1,373,693	1,539,199
18. Amounts held for agents' account, including \$ 1,878,027 agents' credit balances	1,878,027	1,182,367
19. Remittances and items not allocated	80,292,419	109,425,533
20. Net adjustment in assets and liabilities due to foreign exchange rates		
21. Liability for benefits for employees and agents if not included above		
22. Borrowed money \$ and interest thereon \$		
23. Dividends to stockholders declared and unpaid		
24. Miscellaneous liabilities:		
24.01 Asset valuation reserve	579,109,853	528,429,311
24.02 Reinsurance in unauthorized and certified (\$) companies		0
24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers		
24.04 Payable to parent, subsidiaries and affiliates	1,384,876	771,693
24.05 Drafts outstanding		
24.06 Liability for amounts held under uninsured plans		
24.07 Funds held under coinsurance	8,455,551,559	9,967,999,333
24.08 Derivatives	514,078,334	528,221,597
24.09 Payable for securities	487,076,663	315,096,798
24.10 Payable for securities lending		
24.11 Capital notes \$ and interest thereon \$		
25. Aggregate write-ins for liabilities	1,157,496,964	812,010,876
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25)	45,729,373,610	43,494,493,640
27. From Separate Accounts Statement	716,476,065	443,319,567
28. Total liabilities (Lines 26 and 27)	46,445,849,675	43,937,813,207
29. Common capital stock	1,507,500	1,507,500
30. Preferred capital stock		
31. Aggregate write-ins for other than special surplus funds	0	0
32. Surplus notes		
33. Gross paid in and contributed surplus	815,178,800	815,178,800
34. Aggregate write-ins for special surplus funds	244,139,586	271,533,895
35. Unassigned funds (surplus)	2,026,893,289	1,962,730,408
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 \$ in Separate Accounts Statement)	3,086,211,675	3,049,443,103
38. Totals of Lines 29, 30 and 37	3,087,719,175	3,050,950,603
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	49,533,568,850	46,988,763,810
DETAILS OF WRITE-INS		
2501. Derivative collateral	1,087,171,106	763,875,478
2502. Unclaimed property	34,840,847	32,408,582
2503. Accounts payable	35,485,011	15,726,816
2598. Summary of remaining write-ins for Line 25 from overflow page	0	0
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	1,157,496,964	812,010,876
3101.		
3102.		
3103.		
3198. Summary of remaining write-ins for Line 31 from overflow page	0	0
3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)	0	0
3401. Admitted Disallowed IMR	244,139,586	271,533,895
3402.		
3403.		
3498. Summary of remaining write-ins for Line 34 from overflow page	0	0
3499. Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)	244,139,586	271,533,895

SUMMARY OF OPERATIONS

	1	2	3
	Current Year To Date	Prior Year To Date	Prior Year Ended December 31
1. Premiums and annuity considerations for life and accident and health contracts	4,306,318,090	3,800,482,061	8,506,770,768
2. Considerations for supplementary contracts with life contingencies			0
3. Net investment income	1,269,609,531	649,793,549	1,918,445,895
4. Amortization of Interest Maintenance Reserve (IMR)	(13,420,200)	3,596,690	10,386,002
5. Separate Accounts net gain from operations excluding unrealized gains or losses			0
6. Commissions and expense allowances on reinsurance ceded	(17,178,528)	92,275,555	70,233,642
7. Reserve adjustments on reinsurance ceded			0
8. Miscellaneous Income:			
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts.....			
8.2 Charges and fees for deposit-type contracts	5,912,368	7,004,491	11,936,497
8.3 Aggregate write-ins for miscellaneous income	23,456,659	20,283,057	47,277,222
9. Totals (Lines 1 to 8.3)	5,574,697,920	4,573,435,403	10,565,050,026
10. Death benefits	8,202,152	6,305,665	16,774,548
11. Matured endowments (excluding guaranteed annual pure endowments)	2,444,205	6,848,358	11,937,177
12. Annuity benefits	397,566,840	370,358,110	715,138,835
13. Disability benefits and benefits under accident and health contracts	2,221,378	2,116,766	4,296,617
14. Coupons, guaranteed annual pure endowments and similar benefits			0
15. Surrender benefits and withdrawals for life contracts	1,359,912,151	1,181,872,972	2,434,702,622
16. Group conversions			0
17. Interest and adjustments on contract or deposit-type contract funds	78,741,035	81,639,883	156,850,177
18. Payments on supplementary contracts with life contingencies			0
19. Increase in aggregate reserves for life and accident and health contracts	3,156,414,722	2,461,917,253	5,901,776,775
20. Totals (Lines 10 to 19)	5,005,502,483	4,111,059,007	9,241,476,751
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	238,236,372	185,255,652	393,686,528
22. Commissions and expense allowances on reinsurance assumed	270,765	238,684	498,774
23. General insurance expenses and fraternal expenses	83,669,906	80,444,232	169,800,801
24. Insurance taxes, licenses and fees, excluding federal income taxes	8,851,240	6,863,942	12,712,335
25. Increase in loading on deferred and uncollected premiums	(276,953)	(460,142)	(372,198)
26. Net transfers to or (from) Separate Accounts net of reinsurance	272,826,159	207,438,502	356,807,133
27. Aggregate write-ins for deductions	0	0	0
28. Totals (Lines 20 to 27)	5,609,079,972	4,590,839,877	10,174,610,124
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	(34,382,052)	(17,404,474)	390,439,902
30. Dividends to policyholders and refunds to members	4,827	4,496	8,940
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	(34,386,879)	(17,408,970)	390,430,962
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	49,032,228	145,051,340	241,836,467
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)	(83,419,107)	(162,460,310)	148,594,495
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ 42,069,522 (excluding taxes of \$ (17,511,441)	(70,085,591)	(129,752,862)	(153,692,165)
35. Net income (Line 33 plus Line 34)	(153,504,698)	(292,213,172)	(5,097,670)
CAPITAL AND SURPLUS ACCOUNT			
36. Capital and surplus, December 31, prior year	3,050,950,603	2,832,582,838	2,832,582,838
37. Net income (Line 35)	(153,504,698)	(292,213,172)	(5,097,670)
38. Change in net unrealized capital gains (losses) less capital gains tax of \$ 82,634,905	230,758,443	104,447,854	165,317,385
39. Change in net unrealized foreign exchange capital gain (loss)	(17,269,783)	11,708,309	19,905,727
40. Change in net deferred income tax	135,425,658	190,690,666	214,574,463
41. Change in nonadmitted assets	(101,467,093)	(84,364,409)	(22,802,347)
42. Change in liability for reinsurance in unauthorized and certified companies			
43. Change in reserve on account of change in valuation basis, (increase) or decrease			0
44. Change in asset valuation reserve	(50,680,542)	25,002,288	48,634,331
45. Change in treasury stock			0
46. Surplus (contributed to) withdrawn from Separate Accounts during period			
47. Other changes in surplus in Separate Accounts Statement			
48. Change in surplus notes			
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	0	0	0
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			(200,000,000)
53. Aggregate write-ins for gains and losses in surplus	(6,493,413)	0	(2,164,124)
54. Net change in capital and surplus for the year (Lines 37 through 53)	36,768,572	(44,728,464)	218,367,765
55. Capital and surplus, as of statement date (Lines 36 + 54)	3,087,719,175	2,787,854,374	3,050,950,603
DETAILS OF WRITE-INS			
08.301. Contractual rider fee income	19,121,657	16,629,602	37,552,904
08.302. Interest on company-owned life insurance	3,270,651	3,240,204	8,921,000
08.303. Reinsurance experience refund	274,592	362,956	748,500
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	789,759	50,295	54,818
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	23,456,659	20,283,057	47,277,222
2701.			
2702.			
2703.			
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0	0
2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	0	0	0
5301. Correction of error, net of tax	(6,493,413)		(2,164,124)
5302.			
5303.			
5398. Summary of remaining write-ins for Line 53 from overflow page	0	0	0
5399. Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(6,493,413)	0	(2,164,124)

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend 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	4,307,492,536	3,802,755,048	8,509,223,422
2. Net investment income	1,467,566,010	773,211,456	2,279,256,583
3. Miscellaneous income	9,551,667	115,808,181	119,187,230
4. Total (Lines 1 to 3)	5,784,610,213	4,691,774,685	10,907,667,235
5. Benefit and loss related payments	1,355,147,460	1,545,510,194	3,375,051,208
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	0	0	0
7. Commissions, expenses paid and aggregate write-ins for deductions	338,941,383	281,408,623	570,446,425
8. Dividends paid to policyholders	4,827	4,496	8,940
9. Federal and foreign income taxes paid (recovered) net of \$ 24,558,081 tax on capital gains (losses)	129,334,148	42,949,650	144,633,518
10. Total (Lines 5 through 9)	1,823,427,818	1,869,872,963	4,090,140,091
11. Net cash from operations (Line 4 minus Line 10)	3,961,182,395	2,821,901,722	6,817,527,144
Cash from Investments			
12. Proceeds from investments sold, matured or repaid:			
12.1 Bonds	3,276,382,135	4,141,441,282	8,045,962,540
12.2 Stocks	26,180,557	94,314,434	131,092,554
12.3 Mortgage loans	225,182,288	153,135,448	715,135,948
12.4 Real estate	0	0	0
12.5 Other invested assets	59,827,336	86,382,068	322,063,704
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	0	0	12,027
12.7 Miscellaneous proceeds	60,185,629	(7,590,850)	56,688,129
12.8 Total investment proceeds (Lines 12.1 to 12.7)	3,647,757,945	4,467,682,382	9,270,954,902
13. Cost of investments acquired (long-term only):			
13.1 Bonds	4,203,631,728	4,987,375,526	10,104,084,572
13.2 Stocks	92,823,104	33,968,192	128,658,375
13.3 Mortgage loans	666,452,074	711,618,012	1,881,105,539
13.4 Real estate	0	0	0
13.5 Other invested assets	190,348,860	144,474,847	339,973,269
13.6 Miscellaneous applications	399,692,264	(41,711,790)	796,679,588
13.7 Total investments acquired (Lines 13.1 to 13.6)	5,552,948,030	5,835,724,787	13,250,501,343
14. Net increase (or decrease) in contract loans and premium notes	(1,141,617)	(854,783)	(1,506,611)
15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	(1,904,048,468)	(1,367,187,622)	(3,978,039,830)
Cash from Financing and Miscellaneous Sources			
16. Cash provided (applied):			
16.1 Surplus notes, capital notes	0	0	0
16.2 Capital and paid in surplus, less treasury stock	0	0	0
16.3 Borrowed funds	0	0	0
16.4 Net deposits on deposit-type contracts and other insurance liabilities	(64,206,830)	(71,178,630)	(136,485,911)
16.5 Dividends to stockholders	0	0	200,000,000
16.6 Other cash provided (applied)	(1,061,484,001)	(1,074,444,249)	(2,282,911,755)
17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	(1,125,690,831)	(1,145,622,879)	(2,619,397,666)
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) .	931,443,096	309,091,222	220,089,648
19. Cash, cash equivalents and short-term investments:			
19.1 Beginning of year	2,211,326,604	1,991,236,956	1,991,236,956
19.2 End of period (Line 18 plus Line 19.1)	3,142,769,700	2,300,328,178	2,211,326,604

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

20.0001. Bond conversions and refinancing	125,879,856	209,375,084	255,431,290
20.0002. Common stock conversions	2,671,391	14,370,960	34,388,517
20.0003. Net investment income payment-in-kind for bonds	1,155,915	14,223,996	0
20.0004. Bonds transferred to other invested assets		18,555,573	18,555,573
20.0005. Other invested assets transferred to common stocks			15,499,684
20.0006. Common stocks transferred to other invested assets			6,408,000
20.0007. Preferred stock conversions		442,451	442,451

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	8,795,576	8,811,838	18,599,421
2. Group life			0
3. Individual annuities	4,703,755,503	3,992,027,957	8,746,785,131
4. Group annuities	2,630,905	3,144,321	5,649,266
5. Accident & health	2,315,191	2,449,967	4,723,087
6. Fraternal			0
7. Other lines of business		0	0
8. Subtotal (Lines 1 through 7)	4,717,497,175	4,006,434,083	8,775,756,905
9. Deposit-type contracts	13,143,916	7,096,581	18,694,941
10. Total (Lines 8 and 9)	4,730,641,091	4,013,530,664	8,794,451,846

NOTES TO FINANCIAL STATEMENTS

Note 1 – Summary of Significant Accounting Policies

A. Accounting Practices

The financial statements of the MassMutual Ascend Life Insurance Company (“MMALIC” or “the Company”) are presented on the basis of accounting practices prescribed or permitted by the Ohio Department of Insurance. The Company was formerly known as Great American Life Insurance Company.

The Ohio Department of Insurance recognizes only statutory accounting practices prescribed or permitted by the State of Ohio for determining and reporting the financial condition and results of operations of an insurance company, for determining its solvency under the Ohio Insurance Law. The National Association of Insurance Commissioners’ (“NAIC”) *Accounting Practices and Procedures Manual* has been adopted as a component of prescribed or permitted practices by the State of Ohio.

In 2021 the Ohio Department of Insurance promulgated Ohio Administrative Code Section 3901-1-67, Alternative Derivative and Reserve Accounting Practices (OAC 3901-1-67), which constitutes a prescribed practice as contemplated by the NAIC SAP. The prescribed practice allows Ohio-domiciled insurance companies to utilize certain alternative derivative and reserve accounting practices for eligible derivative instruments and indexed products, respectively, in order to better align the measurement of indexed product reserves and the derivatives that hedge them. Effective January 1, 2022, the Company elected to apply OAC 3901-1-67 to its derivative instruments hedging equity indexed annuity products and equity indexed reserve liabilities.

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

Net Income	SSAP #	F/S Page	F/S Line #	06/30/2024	12/31/2023
(1) State basis	XXX	XXX	XXX	\$ (153,504,698)	\$ (5,097,670)
(2) State prescribed practices that increase/(decrease) NAIC SAP	XXX	XXX	XXX		
OAC 3901-1-67:					
Derivative instruments	86	4	7, 3	(18,624,771)	(49,286,793)
Reserves for fixed indexed annuities	51	4	1, 19	167,325,684	306,594,598
Tax impact	101	4	18.2, 32	4,494,723	686,970
(3) State permitted practices that increase/(decrease) NAIC SAP	XXX	XXX	XXX	-	-
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$ (306,700,334)	\$ (263,092,445)
Surplus					
(5) Statutory surplus state basis	XXX	XXX	XXX	\$ 3,087,719,175	\$ 3,050,950,603
(6) State prescribed practices that increase/(decrease) NAIC SAP					
OAC 3901-1-67:					
Derivative instruments	86	2, 4	7, 3	(629,505,904)	(525,349,344)
Reserves for fixed indexed annuities	51	3, 4	1, 19	522,120,619	354,794,935
Tax impact	101	2, 4	18.2, 32	37,531,080	50,796,596
(7) State permitted practices that increase/(decrease) NAIC SAP	XXX	XXX	XXX	-	-
(8) NAIC SAP (5-6-7=8)	XXX	XXX	XXX	\$ 3,157,573,381	\$ 3,170,708,417

B, C & D – No significant changes.

Note 2 – Accounting Changes and Corrections of Errors

In 2024, the Company recorded a correction of error related to prior years, net of tax, which resulted in a decrease of statutory capital and surplus of \$6,493,413. The correction of error resulted in adjustments to investment activity related to prior years.

In 2023, the Company recorded a correction of error related to prior years, net of tax, which resulted in a decrease of statutory capital and surplus of \$2,164,124. The correction of error resulted in adjustments to Bonds, Mortgage loans, Other invested assets, Derivatives, Accrued investment income and Payable for securities.

Note 3 – Business Combinations and Goodwill

Not applicable.

Note 4 – Discontinued Operations

Not applicable.

Note 5 – Investments

A, B & C – No significant changes.

D. Loan-Backed Securities

- (1) The Company uses dealer-modeled prepayment assumptions for mortgage-backed and asset-backed securities at the date of purchase to determine the effective yields; significant changes in estimated cash flows from the original purchase assumptions are accounted for on a prospective basis.
- (2) The Company does not currently hold any aggregate loan-backed securities with a recognized other-than-temporary impairment (“OTTI”) in which the Company has the intent to sell or the inability or lack of intent to retain the investment in the security for a period of time to recover the amortized cost basis.

NOTES TO FINANCIAL STATEMENTS

(3) The following table shows each security with a credit-related OTTI charge recognized during the period:

CUSIP	Amortized Cost Before OTTI	Present Value of Projected Cash Flow s	OTTI Charge Recognized in Income Statement	Amortized Cost After OTTI	Fair Value at Time of OTTI	Date Reported
07325DAF1	\$ 188,446	\$ 183,894	\$ 4,552	\$ 183,894	\$ 173,542	03/31/2024
07389NAC9	252,999	244,622	8,378	244,622	249,997	03/31/2024
3622EAAA8	3,363,495	3,323,775	39,721	3,323,775	3,153,854	03/31/2024
61751DAE4	1,528,252	1,458,023	70,229	1,458,023	1,795,267	03/31/2024
86358RXY8	141,707	140,513	1,193	140,513	140,491	03/31/2024
86358RXZ5	221,359	218,722	2,638	218,722	201,247	03/31/2024
00703QAD4	3,309,564	3,330,880	(21,316)	3,330,880	2,331,478	03/31/2024
02147XAR8	569,821	568,694	1,127	568,694	462,724	03/31/2024
02152AAS8	1,681,039	1,680,195	844	1,680,195	1,709,668	03/31/2024
059522AU6	1,990,654	1,977,703	12,952	1,977,703	1,952,207	03/31/2024
05952GAT8	319,263	302,417	16,846	302,417	279,733	03/31/2024
05952GAV3	458,831	435,162	23,669	435,162	402,521	03/31/2024
07386XAH9	947,290	948,547	(1,257)	948,547	771,263	03/31/2024
12566UAN4	549,670	541,211	8,459	541,211	531,037	03/31/2024
12566XAM0	651,755	636,729	15,027	636,729	579,587	03/31/2024
12628LAD2	664,264	632,237	32,026	632,237	522,656	03/31/2024
12667F4N2	1,982,772	1,961,149	21,623	1,961,149	1,892,614	03/31/2024
17309BAB3	197,256	194,233	3,023	194,233	166,593	03/31/2024
32051GT70	601,477	580,656	20,821	580,656	513,722	03/31/2024
36244SAD0	2,013,709	2,018,709	(5,000)	2,018,709	2,114,288	03/31/2024
43739EAP2	555,880	552,194	3,685	552,194	523,782	03/31/2024
46627MCY1	3,736,516	3,706,574	29,942	3,706,574	3,728,355	03/31/2024
46627MEC7	346,366	345,013	1,353	345,013	316,216	03/31/2024
46627MEJ2	1,051,940	1,051,330	610	1,051,330	871,833	03/31/2024
47232CAH7	1,625,552	1,588,003	37,549	1,588,003	1,634,793	03/31/2024
643529AC4	499,851	483,505	16,346	483,505	541,706	03/31/2024
65535VMJ4	528,500	514,916	13,584	514,916	545,242	03/31/2024
65535VNL8	1,911,718	1,911,036	683	1,911,036	2,083,864	03/31/2024
65535VSJ8	1,249,637	1,197,771	51,865	1,197,771	1,003,257	03/31/2024
74928RAB0	215,991	215,991	(0)	215,991	236,763	03/31/2024
75115BAC3	932,748	928,740	4,009	928,740	1,022,173	03/31/2024
761118BU1	501,401	464,499	36,902	464,499	506,476	03/31/2024
761118GS1	1,045,906	1,039,755	6,151	1,039,755	922,272	03/31/2024
761118SC3	1,408,050	1,385,794	22,255	1,385,794	1,191,653	03/31/2024
855541AC2	727,538	712,958	14,579	712,958	653,434	03/31/2024
863579J90	310,964	284,727	26,237	284,727	287,552	03/31/2024
86360BAJ7	659,289	637,763	21,526	637,763	625,317	03/31/2024
87222EAB4	751,711	731,584	20,127	731,584	682,690	03/31/2024
87222EAC2	870,200	839,182	31,018	839,182	680,970	03/31/2024
93934NAC9	441,899	429,939	11,960	429,939	357,528	03/31/2024
45660LCK3	2,514,539	2,470,098	44,442	2,470,098	2,723,605	03/31/2024
058931AT3	1,087,439	1,038,180	49,259	1,038,180	879,088	03/31/2024
05949CKX3	1,152,881	1,152,938	(58)	1,152,938	1,158,454	03/31/2024
05990HAT0	835,338	815,604	19,735	815,604	806,647	03/31/2024
07386YAE4	2,127,460	1,872,598	254,863	1,872,598	1,732,749	03/31/2024
07401CAS2	2,546,303	2,534,503	11,800	2,534,503	2,518,043	03/31/2024
12638PAB5	666,442	630,577	35,865	630,577	479,103	03/31/2024
12669G4K4	2,465,908	2,448,797	17,111	2,448,797	2,303,793	03/31/2024
12669GR45	454,211	451,011	3,200	451,011	405,877	03/31/2024
170257AE9	1,986,016	1,903,375	82,642	1,903,375	1,421,183	03/31/2024
2254582Y3	1,063,127	1,052,270	10,856	1,052,270	941,835	03/31/2024
225458L55	477,807	465,565	12,242	465,565	402,724	03/31/2024
32052EAA7	42,488	41,783	704	41,783	39,155	03/31/2024
32056JAA2	1,021,287	994,518	26,768	994,518	1,080,580	03/31/2024
362341FN4	694,244	680,711	13,534	680,711	609,991	03/31/2024
362341XC8	809,401	777,534	31,867	777,534	695,392	03/31/2024
41161PCX9	153,937	153,895	42	153,895	157,664	03/31/2024
46630WAL4	438,439	438,782	(343)	438,782	293,935	03/31/2024
576433D52	471,876	409,240	62,636	409,240	430,054	03/31/2024
57643MLZ5	205,469	199,902	5,567	199,902	176,526	03/31/2024
59023PAB9	470,257	467,493	2,764	467,493	476,269	03/31/2024
74958YAE2	262,093	259,755	2,338	259,755	258,713	03/31/2024
863579RP5	618,742	604,955	13,787	604,955	564,247	03/31/2024
863579UL0	255,178	254,285	893	254,285	237,173	03/31/2024
863579UU0	939,669	934,433	5,236	934,433	960,949	03/31/2024
863579XR4	1,954,913	1,890,491	64,421	1,890,491	1,887,147	03/31/2024
885220KW2	1,741,141	1,720,731	20,410	1,720,731	1,602,474	03/31/2024
03235TAA5	2,269,468	89,151	2,180,317	89,151	91,091	06/30/2024
62878HAA9	77,803,827	67,655,502	10,148,325	67,655,502	37,210,526	06/30/2024
07325DAF1	178,481	176,126	2,355	176,126	166,148	06/30/2024
3622EAAA8	3,292,504	3,184,660	107,843	3,184,660	3,041,184	06/30/2024

NOTES TO FINANCIAL STATEMENTS

CUSIP	Amortized Cost Before OTTI	Present Value of Projected Cash Flow s	OTTI Charge Recognized in Income Statement	Amortized Cost After OTTI	Fair Value at Time of OTTI	Date Reported
86358RXY8	123,852	123,852	0	123,852	123,889	06/30/2024
86358RXZ5	372,918	188,377	184,541	188,377	171,206	06/30/2024
00703QAD4	3,296,107	3,259,847	36,260	3,259,847	2,386,522	06/30/2024
02152AAS8	1,650,275	1,657,538	(7,263)	1,657,538	1,694,329	06/30/2024
05532TAF9	1,330,063	1,000,180	329,883	1,000,180	1,320,833	06/30/2024
059522AU6	2,241,312	1,925,540	315,772	1,925,540	1,895,287	06/30/2024
05952GAV3	459,594	459,364	231	459,364	396,506	06/30/2024
07384YKF2	1,676,124	1,597,771	78,353	1,597,771	1,509,395	06/30/2024
12566UAE4	391,661	388,055	3,606	388,055	342,216	06/30/2024
12566UAN4	537,632	510,793	26,839	510,793	530,113	06/30/2024
12628LAD2	642,284	622,397	19,887	622,397	514,736	06/30/2024
12667F4N2	1,914,833	1,908,135	6,698	1,908,135	1,810,552	06/30/2024
12667GAC7	587,654	584,787	2,867	584,787	567,539	06/30/2024
12668APC3	769,291	754,235	15,056	754,235	708,505	06/30/2024
17307GED6	1,262,267	1,251,250	11,017	1,251,250	1,309,786	06/30/2024
17309BAB3	194,329	190,609	3,721	190,609	163,894	06/30/2024
25150NAB0	1,429,029	1,411,817	17,212	1,411,817	1,189,708	06/30/2024
45254NNT0	86,269	46,530	39,739	46,530	37,525	06/30/2024
46627MAD9	497,454	495,061	2,393	495,061	429,325	06/30/2024
46627MCY1	3,504,842	3,460,914	43,928	3,460,914	3,510,994	06/30/2024
46627MEJ2	1,029,088	1,028,470	619	1,028,470	850,323	06/30/2024
61748HUF6	444,541	437,080	7,462	437,080	394,526	06/30/2024
643529AC4	488,451	472,942	15,509	472,942	512,282	06/30/2024
65535VSJ8	1,198,546	1,139,006	59,540	1,139,006	965,916	06/30/2024
75115DAA3	176,480	172,897	3,583	172,897	155,478	06/30/2024
75116FBH1	1,316,094	1,293,501	22,593	1,293,501	1,096,145	06/30/2024
76110HH85	209,667	196,650	13,018	196,650	207,840	06/30/2024
761118BU1	356,973	358,468	(1,495)	358,468	390,598	06/30/2024
761118FM5	1,654,272	1,550,452	103,819	1,550,452	1,634,697	06/30/2024
761118GS1	577,336	578,234	(897)	578,234	519,129	06/30/2024
761118SC3	1,347,876	1,353,200	(5,324)	1,353,200	1,178,737	06/30/2024
855541AC2	681,799	664,359	17,440	664,359	610,581	06/30/2024
863579J90	281,218	263,740	17,478	263,740	257,606	06/30/2024
86360BAG3	1,593,226	1,526,542	66,684	1,526,542	1,446,404	06/30/2024
86360BAJ7	732,362	624,365	107,997	624,365	608,246	06/30/2024
87222EAB4	737,391	714,622	22,770	714,622	678,658	06/30/2024
87222EAC2	854,908	824,739	30,169	824,739	673,478	06/30/2024
93934NAC9	212,897	212,897	0	212,897	177,003	06/30/2024
45660LCK3	2,492,599	2,447,687	44,912	2,447,687	2,730,961	06/30/2024
058931AT3	849,462	844,051	5,410	844,051	736,680	06/30/2024
05946XY72	969,731	968,019	1,712	968,019	907,973	06/30/2024
05990HAT0	797,257	776,355	20,901	776,355	770,842	06/30/2024
073880AD8	1,041,747	980,882	60,865	980,882	884,127	06/30/2024
07401CAS2	2,149,928	1,800,366	349,563	1,800,366	1,769,018	06/30/2024
12544DAG4	76,422	76,273	149	76,273	63,205	06/30/2024
1266942H0	487,696	485,711	1,985	485,711	402,837	06/30/2024
126694HP6	424,687	418,006	6,681	418,006	407,545	06/30/2024
12669G3S8	1,109,352	1,086,152	23,199	1,086,152	970,937	06/30/2024
12669G4K4	2,416,802	2,413,996	2,805	2,413,996	2,282,559	06/30/2024
12669GR45	488,586	443,234	45,352	443,234	418,915	06/30/2024
2254582Y3	1,038,258	1,042,487	(4,229)	1,042,487	922,895	06/30/2024
225470VF7	1,214,433	1,144,277	70,156	1,144,277	1,034,928	06/30/2024
32052EAA7	41,561	40,891	670	40,891	38,638	06/30/2024
32056JAA2	946,028	935,645	10,383	935,645	957,523	06/30/2024
362341FN4	682,514	656,914	25,600	656,914	596,198	06/30/2024
362341XC8	753,782	753,720	62	753,720	684,524	06/30/2024
466247UG6	396,801	389,244	7,556	389,244	391,491	06/30/2024
46630WAL4	429,077	428,735	343	428,735	286,999	06/30/2024
46631NAA7	629,936	624,489	5,447	624,489	490,712	06/30/2024
46631NDT3	5,702,643	5,440,665	261,978	5,440,665	5,514,444	06/30/2024
52520MCE1	192,541	190,485	2,057	190,485	182,118	06/30/2024
57643MLZ5	197,781	191,438	6,343	191,438	175,020	06/30/2024
59023PAB9	459,882	457,928	1,954	457,928	464,081	06/30/2024
61758VAQ0	2,524,715	2,424,826	99,890	2,424,826	2,004,345	06/30/2024
74958YAE2	259,088	254,354	4,734	254,354	256,384	06/30/2024
863579RP5	601,854	558,618	43,237	558,618	556,863	06/30/2024
863579UL0	255,370	250,985	4,385	250,985	234,764	06/30/2024
863579UU0	1,012,782	885,453	127,329	885,453	919,353	06/30/2024
863579XR4	1,816,437	1,747,652	68,785	1,747,652	1,724,184	06/30/2024
92925VAF7	1,963,141	1,392,435	570,706	1,392,435	1,835,677	06/30/2024
92979DAC9	2,345,113	2,281,758	63,356	2,281,758	2,403,743	06/30/2024
94985AAA7	172,846	172,336	510	172,336	162,836	06/30/2024
94986CAA2	160,856	162,103	(1,247)	162,103	209,862	06/30/2024
			17,382,593			

NOTES TO FINANCIAL STATEMENTS

- (4) The following table shows all loan-backed securities with an unrealized loss:
- a. The aggregate amount of unrealized losses:

1. Less than 12 Months	\$	17,500,205
2. 12 Months or Longer		528,726,557
- b. The aggregate related fair value of securities with unrealized losses:

1. Less than 12 Months	\$	846,277,333
2. 12 Months or Longer		5,642,033,322
- (5) Based on cash flow projections received from independent sources (which reflect loan to collateral values, subordination, vintage and geographic concentration), implied cash flows inherent in security ratings and analysis of historical payment data, management believes that the Company will recover its cost basis in all securities with unrealized losses. The Company has the intent to hold securities in an unrealized loss position until they recover in value or mature.
- E. Dollar Repurchase Agreements and/or Securities Lending Transactions – Not applicable.
- F. Repurchase Agreements Transactions Accounted for as Secured Borrowing – Not applicable.
- G. Reverse Repurchase Agreements Transactions Accounted for as Secured Borrowing – Not applicable.
- H. Repurchase Agreements Transactions Accounted for as a Sale – Not applicable.
- I. Reverse Repurchase Agreements Transactions Accounted for as a Sale – Not applicable.
- J. Real Estate – Not applicable.
- K. Low Income Housing Tax Credits – Not applicable.
- L. Restricted Assets – No significant change.
- M. Working Capital Finance Investments – Not applicable.
- N. Offsetting and Netting of Assets and Liabilities – Not applicable.
- O. 5GI Securities

Investment	Number of 5GI Securities		Aggregate BACV		Aggregate Fair Value	
	Current Year	Prior Year	Current Year	Prior Year	Current Year	Prior Year
(1) Bonds - AC	32	45	\$ 120,204,355	\$ 135,589,812	\$ 117,843,529	\$ 122,893,073
(2) LB&SS - AC	-	-	-	-	-	-
(3) Preferred Stock - AC	-	1	-	3,499,929	-	5,406,921
(4) Preferred Stock - FV	12	13	27,771,200	26,988,109	27,771,200	26,988,109
(5) Total (1+2+3+4)	44	59	\$ 147,975,555	\$ 166,077,851	\$ 145,614,729	\$ 155,288,103

AC - Amortized Cost FV - Fair Value

- P. Short Sales – Not applicable.
- Q. Prepayment Penalties and Acceleration Fees – No significant change.
- R. Share of Cash Pool by Asset Type – Not applicable.

Note 6 – Joint Ventures, Partnerships and Limited Liability Companies

No significant change.

Note 7 – Investment Income

No significant change.

Note 8 – Derivative Instruments

No significant change.

Note 9 – Income Taxes

No significant change.

NOTES TO FINANCIAL STATEMENTS

Note 10 – Information Concerning Parent, Subsidiaries, Affiliates and Other Related Parties

A., B. & C.

The Company is a wholly-owned subsidiary of Glidepath Holdings Inc. which is a subsidiary of Massachusetts Mutual Life Insurance Company ("MMLIC"); 100% of the Company's outstanding common stock is directly owned by Glidepath Holdings Inc. See Schedule Y, Part 1, Organizational Chart.

The Company did not pay or receive federal income tax payments in cash to (from) parent during the period.

The Company did not pay dividends to parent during the period.

The Company did not receive capital contributions during the period.

- D. The Company reported \$969,203 due from and \$1,384,876 due to the parent and affiliated companies. The terms of the agreement require that these amounts are settled within 90 days.
- E. Management or service contracts and all cost sharing arrangements involving the Company:
 - (1) The Company has an agreement with Barings (an affiliate) which provides investment advisory services to the Company.
 - (2) Certain administrative, management, underwriting, claims, accounting, data processing, collection, and investment services are provided under agreements between the Company and affiliates at charges not unfavorable to the Company or the affiliate.
- F. The Company has no material guarantees or undertakings for the benefit of an affiliate.
- G. The Company's outstanding shares are 100% owned by Glidepath Holdings Inc., a subsidiary of MMLIC.
- H. The Company does not own shares of any upstream intermediate entity or its ultimate parent.
- I. The Company has no investment in a subsidiary that exceeds 10% of admitted assets.
- J. The Company did not recognize any impairment or write down for its investments in subsidiary, controlled or affiliated companies during the statement period.
- K. The Company has no investment in a foreign insurance subsidiary.
- L. The Company owns 100% of the outstanding stock of Manhattan National Holding, LLC ("MNH"), a wholly-owned non-insurance subsidiary. MNH owns 100% of the stock of Manhattan National Life Insurance Company ("MNLIC"), a stock life insurance company domiciled in Ohio. The Company utilizes the look-through approach for the valuation of MNH instead of obtaining audited financial statements for MNH. The Company's carrying value in MNH is \$17,071,305, and represents the carrying value of MNLIC, which is presented on the basis of accounting practices prescribed or permitted by the Ohio Department of Insurance.
- M. All SCA Investments – No significant change.
- N. Investment in Insurance SCAs

All U.S insurance subsidiaries owned by the Company prepare their statutory financial statement in compliance with NAIC statutory accounting practices and procedures.
- O. SCA and SSAP No. 48 Entity Loss Tracking – Not applicable.

Note 11 – Debt

- A. The Company has no capital notes or reverse repurchase agreements outstanding.
- B. Federal Home Loan Bank Agreements
 - (1) The Company became a member of the Federal Home Loan Bank ("FHLB") on August 14, 2009. Through its association with the FHLB and by purchasing a set amount of FHLB stock, the Company can enter into deposit contracts. The Company owned \$41,525,200 of FHLB stock at June 30, 2024 and December 31, 2023. The Company also posted collateral to the FHLB of assets with a fair value of approximately \$1,533,049,464 as of June 30, 2024. The Company's FHLB borrowing capacity is based on the Company's estimate of collateral eligible to be pledged with the FHLB. The deposit-type contract liabilities and related assets are accounted for in the Company's general account.
 - (2) FHLB Capital Stock
 - a. The Company held 200,000 shares of Class B membership stock at June 30, 2024 and December 31, 2023. The Company held 215,252 shares of activity and excess stock at June 30, 2024 and December 31, 2023.
 - b. The Company has no membership stock eligible for redemption.
 - (3) Collateral Pledged to FHLB
 - a. The amount of collateral pledged to the FHLB at June 30, 2024 was \$1,533,049,464 (fair value) and \$1,615,822,408 (carrying value). The total aggregate borrowing from the FHLB at June 30, 2024 was \$500,000,000.
 - b. The maximum amount of collateral pledged to the FHLB during the period was \$1,590,851,496 (fair value) and \$1,671,355,293 (carrying value) at March 31, 2024. The amount borrowed from the FHLB at the time of maximum collateral was \$500,000,000.
 - (4) Borrowing from FHLB
 - a. The Company has accessed a total of \$500,000,000 as part of the funding agreement with the FHLB.
 - b. The maximum amount of borrowings from the FHLB during the period was \$500,000,000.
 - c. The current borrowings related to fixed rate funding agreements are subject to prepayment penalties.

NOTES TO FINANCIAL STATEMENTS

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

A., B., C. & D.

The Company did not participate in a defined benefit plan.

E. Defined Contribution Plan

The Company participates in the retirement plans of MMALIC. MMALIC sponsors funded (qualified 401(k) thrift savings) and unfunded (nonqualified deferred compensation thrift savings) defined contribution plans for its employees and retirees. The qualified 401(k) thrift savings plan's net assets available for benefits were \$68,770,381 as of June 30, 2024 and \$58,683,564 as of December 31, 2023. The Company matches a percentage of employee contributions to the qualified 401(k) thrift savings plan. The Company's total matching thrift savings contributions included in general insurance expenses were \$2,561,910 for the six months ended June 30, 2024 and \$4,458,732 for the year ended December 31, 2023.

F. The Company did not participate in multiemployer plans.

G. The Company did not participate in consolidated or holding company plans.

H. The Company does not accrue for postemployment benefits and compensated absences.

I. The Company does not apply for a subsidy under the Medicare Part D under the Medicare Modernization Act.

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

No significant change.

Note 14 – Contingencies

No significant change.

Note 15 – Leases

No significant change.

Note 16 – Information About Financial Instruments With Off-Balance Sheet Risk and Financial Instruments With Concentrations of Credit Risk

No significant change.

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

The Company has no reportable transactions.

Note 18 – Gain or Loss to the Reporting Entity from Uninsured Plans and the Uninsured Portion of Partially Insured Plans

Not applicable.

Note 19 – Direct Premium Written/Produced by Managing General Agents/Third Party Administrators

Not applicable.

NOTES TO FINANCIAL STATEMENTS

Note 20 – Fair Value Measurements

A.

(1) Fair Value Measurements at Reporting Date

The Company has categorized its assets and liabilities measured at fair value into the three-level fair value hierarchy as reflected in the following table. See item (4) below for a discussion of each of these three levels.

	Level 1	Level 2	Level 3	Net Asset Value (NAV)	Total
Assets at fair value					
Bonds:					
Special revenue	\$ -	\$ -	\$ -	\$ -	\$ -
Industrial and misc. (unaffiliated)	-	7,476,684	40,911,366	-	48,388,050
Hybrid securities	-	29,375	-	-	29,375
Total bonds	-	7,506,059	40,911,366	-	48,417,425
Non-affiliated preferred stock	59,179,672	-	72,691,385	-	131,871,057
Non-affiliated common stock	127,271,776	-	185,478,706	-	312,750,482
Currency sw aps	-	3,366,718	-	-	3,366,718
Currency forw ards	-	1,448,175	-	-	1,448,175
Interest rate sw aps	-	126,053,262	-	-	126,053,262
Financial Futures	11,952	-	-	-	11,952
Separate account assets	9,370,770	707,105,295	-	-	716,476,065
Total assets at fair value	\$ 195,834,170	\$ 845,479,509	\$ 299,081,457	\$ -	\$ 1,340,395,136
Liabilities at fair value					
Currency sw aps	\$ -	\$ 24,244,750	\$ -	\$ -	\$ 24,244,750
Currency forw ards	-	414,631	-	-	414,631
Interest rate sw aps	-	119,564,138	-	-	119,564,138
Financial Futures	673,758	-	-	-	673,758
Separate account liabilities	9,370,770	707,105,295	-	-	716,476,065
Total liabilities at fair value	\$ 10,044,528	\$ 851,328,814	\$ -	\$ -	\$ 861,373,342

(2) Fair Value Measurements in Level 3 of the Fair Value Hierarchy

	Beginning Balance at 3/31/2024	Transfers into Level 3	Transfers out of Level 3	Total Gains and (losses) included in Net Income	Total Gains and (losses) included in Surplus	Purchases	Issuances	Settlements	Other Adjustments	Ending Balance at 6/30/2024
Bonds: industrial and misc (unaffiliated)	\$ 7,493,094	\$ -	\$ -	\$ 160,725	\$ (11,255,087)	\$ -	\$ 6,439	\$ (770,335)	\$ 45,276,530	\$ 40,911,366
Non-affiliated preferred stock	70,283,612	-	-	2,388,800	(5,326,898)	-	-	-	5,345,871	72,691,385
Non-affiliated common stock	162,367,335	(83)	-	(577)	15,788,673	(537,352)	(7,846,815)	-	15,707,525	185,478,706
Total	\$ 240,144,041	\$ (83)	\$ -	\$ 2,548,948	\$ (793,312)	\$ (537,352)	\$ (7,840,376)	\$ (770,335)	\$ 66,329,926	\$ 299,081,457

(3) Fair Value Recognition of Transfers Between Levels

The Company recognizes and records the transfer of securities into and out of Level 3 due to changes in availability of market observable inputs. All transfers are reflected in the table above at fair value as of the end of the reporting period.

(4) Inputs and Techniques Used in Estimating Fair Value

Level 1 - Quoted prices for identical assets or liabilities in active markets (markets in which transactions occur with sufficient frequency and volume to provide pricing information on an ongoing basis). The Company's Level 1 financial instruments consist primarily of publicly traded equity securities for which quoted market prices in active markets are available.

Level 2 - Quoted prices for similar instruments in active markets; quoted prices for identical or similar assets or liabilities in inactive markets (markets in which there are few transactions, the prices are not current, price quotations vary substantially over time or among market makers, or in which little information is released publicly); and valuations based on other significant inputs that are observable in active markets. Level 2 inputs include benchmark yields, reported trades, corroborated broker/dealer quotes, issuer spreads and benchmark securities. When non-binding broker quotes can be corroborated by comparison to similar securities priced using observable inputs, they are classified as Level 2.

Level 3 - Valuations derived from market valuation techniques generally consistent with those used to estimate the fair value of Level 2 financial instruments in which one or more significant inputs are unobservable or when the market for a security exhibits significantly less liquidity relative to markets supporting Level 2 fair value measurements. The unobservable inputs may include management's own assumptions about the assumptions market participants would use based on the best information available in the circumstances. The Company's Level 3 is comprised of financial instruments whose fair value is estimated based on non-binding broker quotes or internally developed using significant inputs not based on, or corroborated by, observable market information.

The Company's investment manager, Barings LLC ("Barings") is responsible for the valuation process and uses data from outside sources (including nationally recognized pricing services and broker/dealers) in establishing fair value. Valuation techniques utilized by pricing services and prices obtained from external sources are reviewed by Barings internal investment professionals who are familiar with the securities being priced and the markets in which they trade to ensure the fair value determination is representative of an exit price. To validate the appropriateness of the prices obtained, the investment manager considers widely published indices (as benchmarks), recent trades, changes in interest rates, general economic conditions and the credit quality of the specific issuers. In addition, Barings communicates directly with the pricing service regarding the methods and assumptions used in pricing, including verifying, on a test basis, the inputs used by the service to value specific securities.

(5) Derivative Assets and Liabilities

- a. The Company's derivative assets/liabilities are reported on a gross basis (see 20-A-(1)).
- b. The Company has no gross or net derivative assets/liabilities measured at fair value in the Level 3 category.

B. The Company has no additional fair value disclosures.

NOTES TO FINANCIAL STATEMENTS

C. The Company has categorized all the financial assets in the financial statements into the three-level fair value hierarchy as reflected in the following table. See item (4) above for a discussion of each of these three levels.

Type of Financial Instrument	Aggregate Fair Value	Admitted Assets	Level 1	Level 2	Level 3	Net Asset Value (NAV)	Not Practicable (Carrying Value)
Financial assets:							
Bonds:							
U.S. Governments	\$ 146,057,328	\$ 180,399,515	\$ -	\$ 146,057,328	\$ -	\$ -	\$ -
All other government	8,983,772	10,141,135	-	8,983,772	-	-	-
States, territories and possessions	155,994,812	163,985,533	-	155,994,812	-	-	-
Political subdivisions of states, territories	223,256,623	228,002,766	-	223,256,623	-	-	-
Special revenue	1,705,255,043	1,850,593,521	-	1,690,227,086	15,027,957	-	-
Industrial and misc. (unaffiliated)	29,836,353,555	31,642,016,041	-	21,405,187,933	8,431,165,622	-	-
Hybrid securities	1,018,515,110	1,013,722,520	-	1,005,691,110	12,824,000	-	-
Parent, subs and affiliates	676,657,592	692,330,685	-	536,857,885	139,799,707	-	-
Total bonds	\$ 33,771,073,835	\$ 35,781,191,716	\$ -	\$ 25,172,256,549	\$ 8,598,817,286	\$ -	\$ -
Non affiliated preferred stock	280,402,621	273,934,653	154,944,944	3,000,000	122,457,677	-	-
Non affiliated common stock	312,750,482	312,750,482	127,271,776	-	185,478,706	-	-
Mortgage loans	4,501,693,383	4,690,293,526	-	-	4,501,693,383	-	-
Currency forw ards	1,448,175	1,448,175	-	1,448,175	-	-	-
Fixed-indexed annuity options	964,710,845	713,500,755	438,944,890	525,765,955	-	-	-
Interest rate sw aps	126,053,262	126,053,262	-	126,053,262	-	-	-
Currency sw aps	3,366,718	3,366,718	-	3,366,718	-	-	-
Financial Futures	11,952	11,952	11,952	-	-	-	-
Separate account assets	716,476,065	716,476,065	9,370,770	707,105,295	-	-	-
Cash, cash equivalents and short-term investments	3,142,769,700	3,142,769,700	3,142,769,700	-	-	-	-
Policy loans	28,810,934	28,810,934	-	-	28,810,934	-	-
Total financial assets	43,849,567,972	45,790,607,938	3,873,314,032	\$ 26,538,995,954	\$ 13,437,257,986	\$ -	\$ -
Financial liabilities:							
Currency sw aps	\$ 24,244,750	\$ 24,244,750	\$ -	\$ 24,244,750	\$ -	\$ -	\$ -
Currency forw ards	414,631	414,631	-	414,631	-	-	-
Interest rate sw aps	119,564,138	119,564,138	-	119,564,138	-	-	-
Fixed-indexed annuity options	-	369,181,057	-	-	-	-	-
Financial Futures	673,758	673,758	673,758	-	-	-	-
Separate account liabilities	716,476,065	716,476,065	9,370,770	707,105,295	-	-	-
Total financial liabilities	\$ 861,373,342	\$ 1,230,554,399	\$ 10,044,528	\$ 851,328,814	\$ -	\$ -	\$ -

D. Not Practicable to Estimate Fair Value – The Company has no financial instruments that fall under this classification.

E. NAV Practical Expedient Investments – The Company has no financial investments that fall under this classification.

Note 21 – Other Items

A. Unusual or Infrequent Items

Admitted disallowed Interest Maintenance Reserve (“IMR”):

As of June 30, 2024, the Company had \$244,139,586 of net negative (disallowed) IMR in aggregate and in the general account.

As of June 30, 2024, the Company had \$244,139,586 of negative IMR admitted in the general account.

As of June 30, 2024, the calculated adjusted capital and surplus was \$2,441,395,834.

As of June 30, 2024, the percentage of adjusted capital and surplus for which the admitted disallowed IMR represents was 10%.

The follow ing represents allocated gains (losses) previously deferred to the IMR from derivatives:

	June 30, 2024
Realized capital gains	2,365,471
Realized capital losses	(24,383,664)
Total allocated gains (losses) to IMR from derivatives	\$ (22,018,192)

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 of \$244,139,586 admitted under the currently adopted statutory accounting interpretation is primarily related to its Funds Withheld (FWH) reinsurance treaty. 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.

B. The Company had no troubled debt restructuring.

Note 22 – Events Subsequent/Other items

No significant change.

Note 23 – Reinsurance

No significant change.

Note 24 – Retrospectively Rated Contracts & Contracts Subject to Redetermination

Not applicable.

Note 25 – Change in Incurred Losses and Loss Adjustment Expenses

Reserves on accident and health contracts for incurred and loss adjustment expenses attributable to insured events of prior years developed as anticipated during the period. Original estimates are increased or decreased as additional information becomes known regarding individual claims. However, no significant trends or unanticipated events were noted. None of the Company’s accident and health contracts are subject to retrospective rating or experience refunds.

NOTES TO FINANCIAL STATEMENTS

Note 26 – Intercompany Pooling Arrangements

Not applicable.

Note 27 – Structured Settlements

Not applicable.

Note 28 – Health Care Receivables

Not applicable.

Note 29 – Participating Policies

No significant change.

Note 30 – Premium Deficiency Reserves

Not applicable.

Note 31 – Reserves for Life Contracts and Annuity Contracts

No significant change.

Note 32 – Analysis of Annuity Actuarial Reserves and Deposit Type Liabilities by Withdrawal Characteristics

No significant change.

Note 33 – Analysis of Life Actuarial Reserves by Withdrawal Characteristics

No significant change.

Note 34 – Premiums and Annuity Considerations Deferred and Uncollected

No significant change.

Note 35 – Separate Accounts

No significant change.

Note 36 – Loss/Claim Adjustment Expenses

No significant 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?
If yes, complete Schedule Y, Parts 1 and 1A.

Yes [X] No []

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?
If yes, attach an explanation.

Yes [] No [X] N/A []

6.1

State as of what date the latest financial examination of the reporting entity was made or is being made.

12/31/2021

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.

12/31/2021

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).

05/23/2023

6.4

By what department or departments?
State of Ohio, Department 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 [] No [] N/A [X]

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	NO	NO	NO	YES
Baring International Investment Limited	London, UK	NO	NO	NO	YES
Baring Securities LLC	Charlotte, NC	NO	NO	NO	YES
Flourish Financial, LLC	New York, NY	NO	NO	NO	YES
IMM Ascend Life Investor Services, LLC	Cincinnati, OH	NO	NO	NO	YES
IML Distributors, LLC	Springfield, MA	NO	NO	NO	YES
IML Investment Advisers, LLC	Springfield, MA	NO	NO	NO	YES
IML Investors Services	Springfield, MA	NO	NO	NO	YES
IML Strategic Distributors, LLC	Springfield, MA	NO	NO	NO	YES
The MassMutual Trust Company, OCC	Enfield, CT	NO	YES	NO	NO

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?
(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.

Yes [X] No []
- 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 [X]
- 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 [X]
- 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 [X] No []
- 10.2

If yes, indicate any amounts receivable from parent included in the Page 2 amount:\$.....

0

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 [X]
- 11.2

If yes, give full and complete information relating thereto:
.....
12.

Amount of real estate and mortgages held in other invested assets in Schedule BA:

\$.....324,692,536
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 [X] No []
- 14.2

If yes, please complete the following:

	1	2
	Prior Year-End Book/Adjusted Carrying Value	Current Quarter Book/Adjusted Carrying Value
14.21 Bonds	\$.....744,638,614	\$.....314,292,242
14.22 Preferred Stock	\$.....0	\$.....
14.23 Common Stock	\$.....445,210,536	\$.....465,897,252
14.24 Short-Term Investments	\$.....0	\$.....
14.25 Mortgage Loans on Real Estate	\$.....0	\$.....
14.26 All Other	\$.....237,992,753	\$.....292,185,755
14.27 Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)	\$.....1,427,841,903	\$.....1,072,375,249
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 [X] No []

15.2

If yes, has a comprehensive description of the hedging program been made available to the domiciliary state?
If no, attach a description with this statement.
.....

Yes [X] No [] N/A []

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.

\$.....0

16.2

Total book/adjusted carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2

\$.....0

16.3

Total payable for securities lending reported on the liability page.

\$.....0
- 8.1

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend 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
Bank of New York Mellon	1 Wall Street, New York, NY 10286
State Street Bank and Trust Company	JAB2NWN. Quincy, MA 02171

- 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
ARES Capital Management LLC	U.....
Ares Management LLC	U.....
Barings LLC	A.....
Centerbridge Martello Advisors, LLC	U.....
Fractal Investments LLC	U.....
Western Asset Management Company	U.....
Angelo, Gordon & Co., L.P	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
130074	ARES Capital Management LLC	549300R4YHRZ8JUZU385	SEC	NO.....
130074	Ares Management LLC	549300JA9GMPFTSVQQ05	SEC	NO.....
106006	Barings LLC	ANDKRHQKPRRG4Q2KLR05	SEC	DS.....
131940	Angelo, Gordon & Co., L.P.	XXJ808RONB9FETFPGB63	SEC	NO.....
157359	Centerbridge Martello Advisors, LLC	549300F5X7LPP05D3544	SEC	NO.....
311767	Fractal Investments LLC	984500D14JFD006CBC96	SEC	NO.....
801-8162	Western Asset Management Company	549300C5A561UXU1CN46	SEC	NO.....

- 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, 42 issues for 38 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 \$114,791,181 or 0.31% 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

\$

3,110,796,775

1.13

Commercial Mortgages

\$

1,579,496,751

1.14

Total Mortgages in Good Standing

\$

4,690,293,526

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

\$

0

1.4

Long-Term Mortgage Loans in Process of Foreclosure

1.41

Farm Mortgages

\$

1.42

Residential Mortgages

\$

1.43

Commercial Mortgages

\$

1.44

Total Mortgages in Process of Foreclosure

\$

0

1.5

Total Mortgage Loans (Lines 1.14 + 1.21 + 1.34 + 1.44) (Page 2, Column 3, Lines 3.1 + 3.2)

\$

4,690,293,526

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

\$

0

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 MassMutual Ascend Life Insurance Company

SCHEDULE S - CEDED REINSURANCE

Showing All New Reinsurance Treaties - Current Year to Date

1	2	3	4	5	6	7	8	9	10
NAIC Company Code	ID Number	Effective Date	Name of Reinsurer	Domiciliary Jurisdiction	Type of Reinsurance Ceded	Type of Business Ceded	Type of Reinsurer	Certified Reinsurer Rating (1 through 6)	Effective Date of Certified Reinsurer Rating
			NONE						

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Current Year To Date - Allocated by States and Territories

States, Etc.			Direct Business Only					
			Life Contracts		4 Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees	5 Other Considerations	6 Total Columns 2 Through 5	7 Deposit-Type Contracts
			2 Life Insurance Premiums	3 Annuity Considerations				
Active Status (a)								
1.	Alabama	AL	L	105,020	74,111,848	17,791	74,234,659	
2.	Alaska	AK	L	3,686	2,734,028		2,737,714	
3.	Arizona	AZ	L	221,130	89,801,759	8,600	90,031,489	250,334
4.	Arkansas	AR	L	71,554	32,293,252	674	32,365,480	387,860
5.	California	CA	L	2,100,150	514,828,497	7,422	516,936,069	1,330,431
6.	Colorado	CO	L	89,181	54,216,330	34,376	54,339,887	
7.	Connecticut	CT	L	156,365	85,895,191	2,672	86,054,228	
8.	Delaware	DE	L	17,839	16,910,128		16,927,967	
9.	District of Columbia	DC	L	10,870	4,551,441		4,562,311	
10.	Florida	FL	L	725,119	473,716,143	126,765	474,568,027	1,125,501
11.	Georgia	GA	L	294,729	132,236,729	36,301	132,567,759	290,816
12.	Hawaii	HI	L	109,265	45,137,198		45,246,463	47,025
13.	Idaho	ID	L	34,496	23,177,116	7,181	23,218,793	
14.	Illinois	IL	L	261,544	170,705,710	66,614	171,033,868	612,542
15.	Indiana	IN	L	70,355	107,585,800	46,833	107,702,988	195,835
16.	Iowa	IA	L	60,145	30,097,418	56,223	30,213,786	189,789
17.	Kansas	KS	L	47,737	27,958,401	65,044	28,071,182	
18.	Kentucky	KY	L	67,730	39,533,065	71,664	39,672,459	
19.	Louisiana	LA	L	97,075	81,466,053	3,866	81,566,994	
20.	Maine	ME	L	36,660	16,266,923	3,272	16,306,855	
21.	Maryland	MD	L	221,724	114,913,635	5,066	115,140,425	
22.	Massachusetts	MA	L	193,569	96,141,064		96,334,633	1,178,880
23.	Michigan	MI	L	102,315	177,961,447	1,619	178,065,381	
24.	Minnesota	MN	L	202,329	69,582,929	4,993	69,790,251	47,510
25.	Mississippi	MS	L	52,933	22,615,837	1,466	22,670,236	
26.	Missouri	MO	L	130,918	255,962,642	81,041	256,174,601	806,315
27.	Montana	MT	L	2,457	3,269,331		3,271,788	
28.	Nebraska	NE	L	61,981	13,557,485	35,683	13,655,149	
29.	Nevada	NV	L	126,553	34,875,375	7,303	35,009,231	
30.	New Hampshire	NH	L	25,686	17,946,562	20,751	17,992,999	661,590
31.	New Jersey	NJ	L	239,915	198,905,827	2,248	199,147,990	2,896,859
32.	New Mexico	NM	L	146,885	15,033,299		15,180,184	11,502
33.	New York	NY	N	52,805	17,232,337	9,270	17,294,412	
34.	North Carolina	NC	L	491,864	183,439,216	680,802	184,611,882	
35.	North Dakota	ND	L	22,873	12,856,650		12,879,523	
36.	Ohio	OH	L	153,738	209,979,079	23,348	210,156,165	118,574
37.	Oklahoma	OK	L	243,213	24,181,295	40,284	24,464,792	
38.	Oregon	OR	L	47,261	37,622,257	25,618	37,695,136	225,373
39.	Pennsylvania	PA	L	508,576	284,416,561	5,903	284,931,040	1,513,313
40.	Rhode Island	RI	L	21,126	26,266,990	2,020	26,290,136	
41.	South Carolina	SC	L	165,742	127,641,728	111,673	127,919,143	642,738
42.	South Dakota	SD	L	25,906	9,873,049	25	9,898,980	
43.	Tennessee	TN	L	200,565	113,392,290	98,337	113,691,192	
44.	Texas	TX	L	1,000,802	227,106,810	53,076	228,160,688	115,024
45.	Utah	UT	L	48,265	34,578,852	19,348	34,646,465	
46.	Vermont	VT	L	21,522	6,605,261	10,284	6,637,067	
47.	Virginia	VA	L	362,284	136,544,324	120,207	137,026,815	
48.	Washington	WA	L	144,080	85,251,156	85,412	85,480,648	295,382
49.	West Virginia	WV	L	54,325	21,551,608	3,074	21,609,007	97,202
50.	Wisconsin	WI	L	107,484	99,696,463	120,490	99,924,437	103,521
51.	Wyoming	WY	L	9,580	3,830,642		3,840,222	
52.	American Samoa	AS	N				0	
53.	Guam	GU	N	36,585			36,585	
54.	Puerto Rico	PR	N	217			217	
55.	U.S. Virgin Islands	VI	N	1,174			1,174	
56.	Northern Mariana Islands	MP	N				0	
57.	Canada	CAN	N				0	
58.	Aggregate Other Aliens	OT	XXX	42,018	331,382	625	374,025	0
59.	Subtotal	XXX		9,849,920	4,706,386,413	2,125,264	4,718,361,597	13,143,916
90.	Reporting entity contributions for employee benefits plans	XXX					0	
91.	Dividends or refunds applied to purchase paid-up additions and annuities	XXX					0	
92.	Dividends or refunds applied to shorten endowment or premium paying period	XXX					0	
93.	Premium or annuity considerations waived under disability or other contract provisions	XXX		140,365	168,792		309,157	
94.	Aggregate or other amounts not allocable by State	XXX		0	0	0	0	0
95.	Totals (Direct Business)	XXX		9,990,285	4,706,386,413	2,294,056	4,718,670,754	13,143,916
96.	Plus Reinsurance Assumed	XXX		1,368,741	49,766	1,512,593	2,931,100	
97.	Totals (All Business)	XXX		11,359,026	4,706,436,179	3,806,649	4,721,601,854	13,143,916
98.	Less Reinsurance Ceded	XXX		5,261,107	406,554,154	2,294,058	414,109,319	29,626
99.	Totals (All Business) less Reinsurance Ceded	XXX		6,097,919	4,299,882,025	1,512,591	4,307,492,535	13,114,290
DETAILS OF WRITE-INS								
58001.	Other Alien	XXX		42,018	331,382	625	374,025	
58002.		XXX						
58003.		XXX						
58998.	Summary of remaining write-ins for Line 58 from overflow page	XXX		0	0	0	0	0
58999.	Totals (Lines 58001 through 58003 plus 58998)(Line 58 above)	XXX		42,018	331,382	625	374,025	0
9401.		XXX						
9402.		XXX						
9403.		XXX						
9498.	Summary of remaining write-ins for Line 94 from overflow page	XXX		0	0	0	0	0
9499.	Totals (Lines 9401 through 9403 plus 9498)(Line 94 above)	XXX		0	0	0	0	0

(a) Active Status Counts:

1. L - Licensed or Chartered - Licensed insurance carrier or domiciled RRG.....

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.....
- 50

0

0

0

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

	Federal Tax ID	NAIC Co Code	State of Domicile
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

	Federal Tax ID	NAIC Co Code	State of Domicile
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

*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

	Federal Tax ID	NAIC Co Code	State of Domicile
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

	Federal Tax ID	NAIC Co Code	State of Domicile
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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SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 – ORGANIZATIONAL CHART

	Federal Tax ID	NAIC Co Code	State of Domicile
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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SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 – ORGANIZATIONAL CHART

12.6

	Federal Tax ID	NAIC Co Code	State of Domicile
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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SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP
PART 1 – ORGANIZATIONAL CHART

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

12.8

	<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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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>
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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	Federal Tax ID	NAIC Co Code	State of Domicile
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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	Federal Tax ID	NAIC Co Code	State of Domicile
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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	Federal Tax ID	NAIC Co Code	State of Domicile
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

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	<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

*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
PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
. 0435 ...	Massachusetts Mut Life Ins Co	... 65935 ...	04-1590850 ..	3848388 .....	.....	.....	Massachusetts Mutual Life Insurance Company (MMLIC)	.. MA.....	.. UIP.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0435 ...	Massachusetts Mut Life Ins Co	... 93432 ...	06-1041383 ..	.....	.....	.....	C.M. Life Insurance Company	.. CT.....	.. IA.....	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.....	.. IA.....	C.M. Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							CML Special Situations Investor LLC	.. DE.....	.. NIA.....	C.M. Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							CM Life Mortgage Lending LLC	.. DE.....	.. NIA.....	C.M. Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							CML Mezzanine Investor III, LLC	.. DE.....	.. NIA.....	C.M. Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...										Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							CML Global Capabilities LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MM Global Capabilities I LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MassMutual Global Business Services India LLP	.. IND.....	.. NIA.....	MM Global Capabilities I LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MM Global Capabilities (Netherlands) B.V. ...	.. NLD.....	.. NIA.....	MM Global Capabilities I LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MassMutual Global Business Services Romania S.R.L.	.. ROU.....	.. NIA.....	MM Global Capabilities (Netherlands) B.V.	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...										Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MM Global Capabilities II LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MM Global Capabilities III LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MM/Barings Multifamily TEBS 2020 LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	.....	.....	Berkshire Way LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...										Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MML Special Situations Investor LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...			47-5322979 ..	.....	.....	.....	.....	.....	.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...			47-5322979 ..	.....	.....	.....	Timberland Forest Holding LLC	.. DE.....	.. NIA.....	C.M. Life Insurance Company	Influence.....	.....	MMLIC .....	.....	.....
. 0000 ...			47-5322979 ..	.....	.....	.....	Timberland Forest Holding LLC	.. DE.....	.. NIA.....	Wood Creek Capital Management LLC	Management.....	.....	MMLIC .....	.....	.....
. 0000 ...										Timberland Forest Holding LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							Lyme Adirondack Forest Company, LLC	.. DE.....	.. NIA.....	Lyme Adirondack Forest Company, LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							Lyme Adirondack Timberlands I, LLC	.. DE.....	.. NIA.....	Lyme Adirondack Forest Company, LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							Lyme Adirondack Timberlands II, LLC	.. DE.....	.. NIA.....	Lyme Adirondack Forest Company, LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							Lyme Adirondack Timber Sales, LLC	.. DE.....	.. NIA.....	Lyme Adirondack Forest Company, LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	.....	.....	.....	.....	.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							MSP-SC, LLC	.. DE.....	.. NIA.....	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 ...										Massachusetts Mutual Life Insurance Company	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							ITPSHolding LLC	.. DE.....	.. NIA.....	ITPS Holding LLC	Ownership.....	.. 100.000 ..	MMLIC .....	.....	.....
. 0000 ...							HITPS LLC	.. DE.....	.. NIA.....	Massachusetts Mutual Life Insurance Company	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 ...										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 .....	.....	.....

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

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Perce- ntage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Report- ing Entity	Directly Controlled by (Name of Entity/Person)					
.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....	NIA.....	MassMutual Ventures US IV, L.P.	Ownership.....	100.000	MMLIC		
.0000							MassMutual Ventures Europe/APAC I GP, LLC ..	..DE....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	100.000	MMLIC		
.0000							MassMutual Ventures Europe/APAC I GP, L.P. .	..CYM....	NIA.....	MassMutual Ventures Europe/APAC I GP, LLC	Ownership.....	100.000	MMLIC		
.0000							MassMutual Ventures Europe/APAC I L.P.	..CYM....	NIA.....	MassMutual Ventures Europe/APAC I GP, L.P.	Ownership.....	100.000	MMLIC		
.0000							MassMutual Ventures Southeast Asia III LLC .	..DE....	NIA.....	MassMutual Ventures Europe/APAC I L.P.	Ownership.....	100.000	MMLIC		
.0000							MMV Digital I LLC	..CYM....	NIA.....	MassMutual Ventures Southeast Asia III LLC	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Sustainable Advisors LLC	..DE....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	100.000	MMLIC		
.0000							CSA Intermediate Holdco LLC	..DE....	NIA.....	Counterpointe Sustainable Advisors LLC ...	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Trust Services LLC	..DE....	NIA.....	CSA Intermediate Holdco LLC	Ownership.....	100.000	MMLIC		
.0000							CP PACE LLC	..DE....	NIA.....	CSA Intermediate Holdco LLC	Ownership.....	100.000	MMLIC		
.0000							CSA Employee Services Company LLC	..DE....	NIA.....	CSA Intermediate Holdco LLC	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Sustainable Real Estate II LLC	..DE....	NIA.....	CSA Intermediate Holdco LLC	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Energy Solutions II LLC	..DE....	NIA.....	CSA Intermediate Holdco LLC	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Energy Solutions (CA) II LLC ..	..DE....	NIA.....	Counterpointe Energy Solutions II LLC	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Energy Solutions (FL) II LLC ..	..DE....	NIA.....	Counterpointe Energy Solutions II LLC	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Energy Solutions (IL) LLC	..DE....	NIA.....	Counterpointe Energy Solutions II LLC	Ownership.....	100.000	MMLIC		
.0000							Loop-Counterpointe PACE LLC	..DE....	NIA.....	Counterpointe Energy Solutions (IL) LLC ...	Ownership.....	100.000	MMLIC		
.0000							Counterpointe Energy Services LLC	..DE....	NIA.....	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		

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

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Report- ing Entity	Directly Controlled by (Name of Entity/Person)					
.0000							Jefferies DLF 2 C Holdings LLC	..DE.....	NIA.....	Jefferies Direct Lending Fund II C LP	Ownership.....	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund II C SPE LLC ..	..DE.....	NIA.....	Jefferies DLF 2 C Holdings LLC	Ownership.....	100.000	MMLIC		
.0000							JDLF III GP LLC	..DE.....	NIA.....	Jefferies Credit Partners LLC	Ownership.....	100.000	MMLIC		
.0000							JDLF III GP LP	..DE.....	NIA.....	JDLF III GP LLC	Ownership.....	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund III C LP	..DE.....	NIA.....	JDLF III GP LP	Ownership.....	100.000	MMLIC		
.0000							JCP Direct Lending CLO 2023-1 LLC	..DE.....	NIA.....	Jefferies Credit Partners LLC	Ownership.....	100.000	MMLIC		
.0000							JCP Direct Lending CLO 2023 Ltd.	..JEY.....	NIA.....	JCP Direct Lending CLO 2023 Ltd.	Ownership.....	100.000	MMLIC		
.0000							JCP GP I LLC	..DE.....	NIA.....	Jefferies Credit Partners LLC	Ownership.....	100.000	MMLIC		
.0000							Jefferies M Super Private Credit Fund GP LLC	..DE.....	NIA.....	Jefferies Credit Partners LLC	Ownership.....	100.000	MMLIC		
.0000							Jefferies Private Credit BDC Inc.	..MD.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JCP Funding 2024 LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							Jefferies Senior Lending LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver Holdings LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver Holdings II LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Co-Issuer Corporation	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Europe GP, S.a.r.l.	..LUX.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							Jefferies Finance Europe, S.L.P.	..LUX.....	NIA.....	JFIN Europe GP, S.a.r.l.	Ownership.....	100.000	MMLIC		
.0000							Jefferies Finance Europe, SCSp	..LUX.....	NIA.....	JFIN Europe GP, S.a.r.l.	Ownership.....	100.000	MMLIC		
.0000							Jefferies Finance Business Credit LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Business Credit Fund I LLC	..DE.....	NIA.....	Jefferies Finance Business Credit LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Funding 2021 LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN LC Fund LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2017 Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2017-II Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2017-III Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2018 Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2019 Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2019-II Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2020 Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2021-II Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2021-V Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2022-II Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2022-III Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2022-IV Ltd.	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2024-I Ltd.	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver CLO 2022-IV LLC	..CYM.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver Fund, L.P.	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	90.000	MMLIC		
.0000							JFIN Revolver Funding 2021 Ltd.	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver Funding 2021 III Ltd.	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver Funding 2021 IV Ltd.	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver Funding 2022-I Ltd.	..BMU.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver SPE1 2022 LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver SPE3 2022 LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver SPE4 2022 LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JFIN Revolver SPE4 2022 Ltd.	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JCP Private Loan Management GP LLC	..DE.....	NIA.....	Jefferies Finance LLC	Ownership.....	100.000	MMLIC		
.0000							JCP Private Loan Management LP	..DE.....	NIA.....	JCP Private Loan Management GP LLC	Ownership.....	100.000	MMLIC		
.0000							Apex Credit Holdings LLC	..DE.....	NIA.....	JFIN Parent LLC	Ownership.....	100.000	MMLIC		

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 Loca- tion	Rela- tion- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
.0000							JFIN CLO 2012 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2013 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2014 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2014-II Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2015 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2015-II Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	85.000	MMLIC		
.0000							JFIN CLO 2016 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2017 Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2017-II Ltd.	.CYM	NIA	Apex Credit Holdings LLC	Ownership	100.000	MMLIC		
.0000			86-2294635				Tomorrow Parent, LLC	.DE	NIA	JFIN Parent LLC	Ownership	100.000	MMLIC		
.0000	Massachusetts Mut Life Ins Co	63312	13-1935920				Custom Ecology Holdco, LLC	.DE	NIA	JFIN Parent LLC	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	Massachusetts Mut Life Ins Co	63312	13-1935920				Glidepath Holdings Inc.	.DE	UDP	Glidepath Holdings Inc.	Ownership	100.000	MMLIC		
.0000							MassMutual Ascend Life Insurance Company	.OH	.RE	Glidepath Holdings Inc.	Ownership	100.000	MMLIC		
.0000							AAG Insurance Agency, LLC	.KY	NIA	MassMutual Ascend Life Insurance Company	Ownership	100.000	MMLIC		
.0435	Massachusetts Mut Life Ins Co	93661	31-1021738				Annuity Investors Life Insurance Company	.OH	.DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Ascend Life Investor Services, LLC	.OH	NIA	MassMutual Ascend Life Insurance Company	Ownership	100.000	MMLIC		
.0000	Massachusetts Mut Life Ins Co	67083	31-1395344				MM Ascend Mortgage Lending LLC	.OH	.DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Manhattan National Holding, LLC	.OH	.DS	MassMutual Ascend Life Insurance Company	Ownership	100.000	MMLIC		
.0435	Massachusetts Mut Life Ins Co	67083	45-0252531				Manhattan National Life Insurance Company	.OH	.DS	Manhattan National Holding LLC	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual Mortgage Lending LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Copper Hill Road LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MMV CTF I GP LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Climate Technology Fund I LP	.DE	NIA	MMV CTF I GP LLC	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Direct Private Investments Holding LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Direct Private Investments UK Limited	.GBR	NIA	MM Direct Private Investments Holding LLC	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							DPI-ACRES Capital LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							DPI-ARES Mortgage Lending LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000										Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			26-0073611				MM Investment Holding	.CYM	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MMIH Bond Holdings LLC	.DE	NIA	MM Investment Holding	Ownership	99.610	MMLIC		
.0000							MassMutual Asset Finance LLC	.DE	NIA	C.M. Life Insurance Company	Ownership	0.400	MMLIC		
.0000							MassMutual Asset Finance LLC	.DE	NIA	MM Investment Holding	Ownership	99.600	MMLIC		
.0000							MMAF Equipment Finance LLC 2017-B	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2019-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2019-B	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2020-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2020-B	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2021-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2021-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2022-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2022-B	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			04-2443240				MMAF Equipment Finance LLC 2023-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		YES
.0000							MMAF Equipment Finance LLC 2023-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			04-3548444				MMAF Equipment Finance LLC 2024-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000										MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			04-3341767								Ownership	100.000	MMLIC		

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

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
.0000			04-2443240				MML Management Corporation	..MA	NIA	MM Investment Holding	Ownership	100.000	MMLIC		
.0000			04-3548444				MassMutual International Holding MSC, Inc.	..MA	NIA	MML Management Corporation	Ownership	100.000	MMLIC		
.0000			04-3341767				MassMutual Holding MSC, Inc.	..MA	NIA	MML Management Corporation	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000							MML CM LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
.0000							Blueprint Income LLC	..NY	NIA	MML CM LLC	Ownership	100.000	MMLIC		
.0000							Flourish Holding Company LLC	..DE	NIA	MML CM LLC	Ownership	100.000	MMLIC		
.0000							Flourish Insurance Agency LLC	..DE	NIA	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000			04-3356880				Flourish Digital Assets LLC	..DE	NIA	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000			04-3356880				Flourish Financial LLC	..DE	NIA	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
.0000							Flourish Technologies LLC	..DE	NIA	Flourish Holding Company LLC	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			04-3356880				MML Distributors LLC	..MA	NIA	Company	Ownership	99.000	MMLIC		
.0000			04-3356880	2881445			MML Distributors LLC	..MA	NIA	MassMutual Holding LLC	Ownership	1.000	MMLIC	...YES	
							Massachusetts Mutual Life Insurance Company								
.0000			04-1590850				MML Investment Advisers, LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			46-3238013				MML Strategic Distributors, LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			06-1563535	2881445			The MassMutual Trust Company, FSB	..CT	NIA	Company	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			04-1590850				MML Private Placement Investment Company I, LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			04-1590850				MML Private Equity Fund Investor LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
.0000			04-1590850	2392316			MML Private Equity Fund Investor LLC	..DE	NIA	Baring Asset Management Limited	Management	100.000	MMLIC	...YES	
							Massachusetts Mutual Life Insurance Company								
.0000			04-1590850				MM Private Equity Intercontinental LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			45-2738137				Pioneers Gate LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			04-2854319	2392316			MassMutual Holding LLC	..DE	NIA	Company	Ownership	100.000	MMLIC		
.0000			37-1732913				Fern Street LLC	..DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			82-2932156				Low Carbon Energy Holding	..GBR	NIA	MassMutual Holding LLC	Ownership	49.000	MMLIC		
.0000			82-2932156				Sleeper Street LLC	..DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			46-2252944				Haven Life Insurance Agency, LLC	..DE	NIA	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	71.000	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			88-0916548				Barings Perpetual European Direct Lending Fund	..LUX	NIA	Company	Ownership/Influence	81.660	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			98-1206017				Barings Perpetual European Direct Lending Fund	..LUX	NIA	Barings LLC	Influence	29.300	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			88-0916548				Barings Emerging Generation Fund II	..DE	NIA	Company	Ownership/Influence	62.550	MMLIC		
.0000			88-0916548				Barings Emerging Generation Fund II	..DE	NIA	Barings LLC	Influence		MMLIC		
							Babson Capital Global Special Situation Credit Fund 2								
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	..DE	NIA	MassMutual Holding LLC	Ownership/Influence	23.300	MMLIC		
							Massachusetts Mutual Life Insurance Company								
.0000			98-1206017				Credit Fund 2	..DE	NIA	C.M. Life Insurance Company	Ownership	1.100	MMLIC		

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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 Owner-ship Provide Percen-tage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	NIA	Barings LLC	Management		MLLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	.DE	NIA	MassMutual Holding LLC	Ownership/Influence	37.410	MLLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	.DE	NIA	C.M. Life Insurance Company	Ownership	6.700	MLLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	.DE	NIA	Barings LLC	Management	13.800	MLLIC		
.0000			38-4010344				Barings Global Special Situations Credit Fund 3	.LUX	NIA	MassMutual Holding LLC	Ownership/Influence	19.410	MLLIC		
.0000			06-1597528				Barings Global Special Situations Credit Fund 3	.LUX	NIA	Barings LLC	Management	100.000	MLLIC		
.0000			06-1597528				MassMutual Assignment Company	.NC	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			04-1590850				MassMutual Capital Partners LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			46-4255307				Marco Hotel LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			45-3623262				HB Naples Golf Owner LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			82-4411267				RB Apartments LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000							Intermodal Holding II LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures Holding LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000							Crane Venture Partners LLP	.GBR	NIA	MassMutual Ventures Holding LLC	Ownership	33.000	MLLIC		
.0000							MassMutual Ventures Management LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures SEA Management Private Limited	.DE	NIA	MassMutual Ventures Management LLC	Ownership	100.000	MLLIC		
.0000							MMV UK/SEA Limited	.GBR	NIA	MassMutual Ventures SEA Management Private Limited	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures India Private Limited	.IND	NIA	MassMutual Ventures SEA Management Private Limited	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures Southeast Asia I LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures Southeast Asia II LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000			47-1296410				MassMutual Ventures UK LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000			47-1296410				MassMutual Ventures US I LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures US II LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000							MassMutual Ventures US III LLC	.DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MLLIC		
.0000							MM Catalyst Fund LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			04-1590850				MM Catalyst Fund II LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			04-1590850				MM Rothesay Holdco US LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000							Rothesay Limited	.GBR	NIA	MM Rothesay Holdco US LLC	Ownership	48.800	MLLIC		
.0000							Rothesay Mortgages Limited	.GBR	NIA	Rothesay Limited	Ownership	100.000	MLLIC		
.0000							Rothesay Life Plc	.GBR	NIA	Rothesay Limited	Ownership	100.000	MLLIC		
.0000							Rothesay MA No.1 Limited	.GBR	NIA	Rothesay Life PLC	Ownership	100.000	MLLIC		
.0000							Rothesay MA No.3 Limited	.GBR	NIA	Rothesay Life PLC	Ownership	100.000	MLLIC		
.0000							Rothesay MA No.4 Limited	.GBR	NIA	Rothesay Life PLC	Ownership	100.000	MLLIC		
.0000							LT Mortgage Financing Limited	.GBR	NIA	Rothesay Life PLC	Ownership	100.000	MLLIC		
.0000							Rothesay Property Partnership 1 LLP	.GBR	NIA	Rothesay Life PLC	Ownership	100.000	MLLIC		
.0000							Rothesay Foundation	.GBR	NIA	Rothesay Limited	Ownership	100.000	MLLIC		
.0000							Rothesay Pensions Management Limited	.GBR	NIA	Rothesay Limited	Ownership	100.000	MLLIC		
.0000							Rothesay Asset Management UK Limited	.GBR	NIA	Rothesay Limited	Ownership	100.000	MLLIC		
.0000							Rothesay Asset Management Australia Pty Ltd	.AUS	NIA	Rothesay Asset Management UK Limited	Ownership	100.000	MLLIC		
.0000			04-1590850				Rothesay Asset Management North America LLC	.DE	NIA	Rothesay Asset Management UK Limited	Ownership	100.000	MLLIC		
.0000			04-1590850				MML Investors Services, LLC	.MA	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		
.0000			04-1590850				MML Insurance Agency, LLC	.MA	NIA	MML Investors Services, LLC	Ownership	100.000	MLLIC		
.0000			41-2011634				MMLISI Financial Alliances, LLC	.DE	NIA	MML Investors Services, LLC	Ownership	100.000	MLLIC		
.0000			47-1466022				LifeScore Labs, LLC	.MA	NIA	MassMutual Holding LLC	Ownership	100.000	MLLIC		

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PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
.0000			45-4000072				MM Asset Management Holding LLC	.MA	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			51-0504477				Barings LLC	.MA	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			98-0524271				Baring Asset Management (Asia) Holdings Limited	.HKG	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0457465				Baring International Fund Managers (Bermuda) Limited	.BMU	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457463				Baring Asset Management (Asia) Limited	.HKG	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000							Baring Asset Management Korea Limited	.KOR	NIA	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
.0000							Barings Investment Management (Shanghai) Limited	.HKG	NIA	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
.0000			98-0457707				Barings Overseas Investment Fund Management (Shanghai) Limited	.HKG	NIA	Barings Investment Management (Shanghai) Limited	Ownership	100.000	MMLIC		
.0000			98-0457707				Baring SICE (Taiwan) Limited	.TWN	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0236449				Barings Singapore Pte. Ltd.	.SGP	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0236449				Barings Japan Limited	.JPN	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000							Barings Australia Holding Company Pty Ltd	.AUS	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000							Barings Australia Pty Ltd	.AUS	NIA	Barings Australia Holding Company Pty Ltd	Ownership	100.000	MMLIC		
.0000			14-0045656				Barings Australia Real Estate Holdings Pty Ltd	.AUS	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			14-0045656				Barings Australia Real Estate Pty Ltd	.AUS	NIA	Barings Australia Real Estate Holdings Pty Ltd	Ownership	100.000	MMLIC		
.0000			98-0457456				Barings Australia Property Partners Holdings Pty Ltd	.AUS	NIA	Barings Australia Real Estate Pty Ltd	Ownership	100.000	MMLIC		
.0000							Barings Australia Asset Management Pty Ltd	.AUS	NIA	Barings Australia Property Partners Holdings Pty Ltd	Ownership	100.000	MMLIC		
.0000							Barings Australia Property Partners Pty Ltd	.AUS	NIA	Barings Australia Property Partners Holdings Pty Ltd	Ownership	100.000	MMLIC		
.0000							Barings Australia Structured Finance Holdings Pty Ltd	.AUS	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Australia Structured Finance Pty Ltd	.AUS	NIA	Barings Australia Structured Finance Holdings Pty Ltd	Ownership	100.000	MMLIC		
.0000							Gryphon Capital Partners Pty Ltd	.AUS	NIA	Barings Australia Structured Finance Pty Ltd	Ownership	100.000	MMLIC		
.0000							Gryphon Capital Management Pty Ltd	.AUS	NIA	Gryphon Capital Partners Pty Ltd	Ownership	100.000	MMLIC		
.0000			80-0875475				Gryphon Capital Investments Pty Ltd	.AUS	NIA	Gryphon Capital Partners Pty Ltd	Ownership	100.000	MMLIC		
.0000			80-0875475				Barings Finance LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							BCF Europe Funding Limited	.IRL	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000							BCF Senior Funding I LLC	.DE	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000							BCF Senior Funding I Designated Activity Company	.IRL	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000			04-3238351				Barings Real Estate Acquisitions LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-3238351				Barings Securities LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0437588				Barings Guernsey Limited	.GGY	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Europe Limited	.GBR	NIA	Barings Guernsey Limited	Ownership	100.000	MMLIC		
.0000							Barings Asset Management Spain SL	.ESP	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Baring France SAS	.FRA	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		

SCHEDULE Y
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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 Percen-tage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
.0000							Baring International Fund Managers (Ireland) Limited	.IRL	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings GmbH	.DEU	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Italy S.r.l.	.ITA	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Sweden AB	.SWE	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0432153				Barings Netherlands B.V.	.NLD	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0432153				Barings (U.K.) Limited	.GBR	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0241935				Barings Switzerland Sarl	.CHE	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0241935				Baring Asset Management Limited	.GBR	NIA	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000			98-0457328				Barings European Direct Lending 1 GP LLP	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457328				Baring International Investment Limited	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457586				Baring Fund Managers Limited	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457578				BCGSS 2 GP LLP	.GBR	NIA	Baring Fund Managers Limited	Ownership	100.000	MMLIC		
.0000			98-0457578				Baring Investment Services Limited	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Core Fund Feeder I GP S.à.r.l.	.LUX	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Investment Fund (LUX) GP S.à. r.l	.LUX	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings BME GP S.à.r.l.	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings GPC GP S.à. r.l	.LUX	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings European Core Property Fund GP Sarl	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Umbrella Fund (LUX) GP S.à.r.l.	.LUX	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							GPLF4(S) GP S.à r. l	.LUX	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000							PREIF Holdings Limited Partnership	.GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			04-3238351	3456895			BMC Holdings DE LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-3238351	3456895			Barings Real Estate Advisers Inc.	.CA	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Massachusetts Mutual Life Insurance Company								
.0000			81-4065378				Remington L & W Holdings LLC	.DE	NIA	Company	Ownership/Influence	19.900	MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	.DE	NIA	Barings LLC	Influence	100.000	MMLIC		
.0000							Aland Royalty GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Alaska Future Fund GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							BAI Funds SLP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							BAI GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Baring Asset-Based Income Fund (US) GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings CMS Fund GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Infiniti Fund Management LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings New Jersey Emerging Manager Program GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Massachusetts Mutual Life Insurance Company								
.0000							Barings Hotel Opportunity Venture I GP, LLC	.DE	NIA	Company	Ownership	100.000	MMLIC		
.0000							Baring Investment Series LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Emerging Generation Fund GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Barings Emerging Generation Fund GP II, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings EPLF4 Rated Feeder, L.P.	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings ERS PE Emerging Manager III GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings FC III LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Investment Funds (U.S.) Management LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Barings CLO Investment Partners GP, LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Core Property Fund GP LLC	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			88-3792609				Barings DAPPLF1 Rated Feeder, G.P.	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			88-3792609				Barings DAPPLF1 Rated Feeder, L.P.	.DE	NIA	Barings LLC	Ownership	100.000	MMLIC		

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

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
.0000							Barings Direct Lending GP Ltd.	.CYM....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Diversified Residential Fund GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Diversified Residential Fund LP	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Global Energy Infrastructure Advisors, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Capital Solutions Perpetual Fund GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Centre Street CLO Equity Partnership GP, LLC	.DE....	NIA.....	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.....	100.000	MMLIC		
.0000							Barings Global Real Assets Fund GP, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			84-5063008				Barings GPSF LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			84-5063008				Barings North American Private Loan Fund Management, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings North American Private Loan Fund II Management, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			98-0536233				Barings North American Private Loan Fund III Management, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Global Special Situations Credit Fund 4 GP (Delaware) LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings – MM Revolver Fund GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Real Estate European Value Add Fund II Feeder LLC	.CYM....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings SEM GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							BMT RE Debt Fund GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			84-5063008				Barings Small Business Fund LLC	.DE....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	32.300	MMLIC		
.0000			84-5063008				Barings Small Business Fund LLC	.DE....	NIA.....	Barings LLC	Management.....	100.000	MMLIC		
.0000							Barings TYIDF2 Rated Feeder GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			04-1590850				Barings TYIDF2 Rated Feeder, L.P.	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							BCLF GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			98-0536233				Benton Street Advisors, Inc.	.CYM....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Active Passive Equity Direct EAFE LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			41-2280126				BHOVI Incentive LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			80-0920285				BIG Real Estate Fund GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							BIG Real Estate Incentive I LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							BIG Real Estate Incentive II LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			98-1624360				BRECS VII GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							BREDIF GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							CPF Springing Member, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							CREA-MA Reorganization Trust	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			04-3313782				CREF X GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC	...YES...	
.0000			04-1590850				Great Lakes III GP, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Lake Jackson LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000							Barings Emerging Markets Blended Fund I GP, LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		
.0000			27-3576835				Barings EPLF4 Rated Feeder GP LLC	.DE....	NIA.....	Barings LLC	Ownership.....	100.000	MMLIC		

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.0000			41-2280126				Mezzco III LLC	..DE	..NIA	Barings LLC	Ownership	..99.300	MMLIC		
.0000			80-0920285				Mezzco IV LLC	..DE	..NIA	Barings LLC	Ownership	..99.300	MMLIC		
.0000			04-1590850				Mezzco Australia II LLC	..DE	..NIA	Barings LLC	Ownership	..100.000	MMLIC		
.0000			82-2432216				RECSA-NY GP LLC	..DE	..NIA	Barings LLC	Ownership	..100.000	MMLIC		
.0000			98-1624360				Barings CLO 2022-I	..CYM	..NIA	Barings LLC	Influence	..100.000	MMLIC		
.0000							Barings CLO 2022-II	..CYM	..NIA	Barings LLC	Influence	..72.900	MMLIC		
.0000							Amherst Long Term Holdings, LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..24.500	MMLIC		
.0000							Enroll Confidently, Inc.	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..25.000	MMLIC		
.0000			04-3313782				MassMutual International LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			61-1902329				MassMutual Solutions LLC	..DE	..NIA	MassMutual International LLC	Ownership	..100.000	MMLIC		
.0000			85-3036663				Haven Technologies Asia Limited	..HKG	..NIA	MassMutual Solutions LLC	Ownership	..100.000	MMLIC		
.0000			85-3036663				Yunfeng Financial Group Limited	..HKG	..NIA	MassMutual International LLC	Ownership	..24.900	MMLIC		
.0000			27-3576835				MassMutual External Benefits Group LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000							5301 Wisconsin Avenue Associates, LLC	..DC	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..99.000	MMLIC		
.0000			84-3784245				5301 Wisconsin Avenue GP, LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			04-1590850				100 w. 3rd Street LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			82-2432216				300 South Tryon Hotel LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			04-1590850				300 South Tryon LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	..GBR	..NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	..72.900	MMLIC		
.0000							Barings Affordable Housing Mortgage Fund I LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			85-3449260				Barings Affordable Housing Mortgage Fund I LLC	..DE	..NIA	Barings LLC	Management	..72.530	MMLIC		
.0000			61-1902329				Barings Affordable Housing Mortgage Fund II LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			61-1902329				Barings Affordable Housing Mortgage Fund II LLC	..DE	..NIA	Barings LLC	Management		MMLIC		
.0000							Barings Affordable Housing Mortgage Fund III LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	MMLIC		
.0000			85-3036663				Barings Affordable Housing Mortgage Fund III LLC	..DE	..NIA	Barings LLC	Management	..4.800	MMLIC		
.0000			85-3036663				Barings Construction Lending Fund LP	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..85.710	MMLIC		
.0000							Barings Emerging Generation Fund II LP	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..39.700	MMLIC		
.0000			84-3784245				Barings Emerging Generation Fund, LP	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..33.850	MMLIC		
.0000			84-3784245				Barings Emerging Generation Fund, LP	..DE	..NIA	Barings LLC	Management	..86.000	MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	..IRL	..NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	..14.000	MMLIC		
.0000			45-2632610				Barings Emerging Markets Corporate Bond Fund	..IRL	..NIA	Barings LLC	Ownership	..56.900	MMLIC		

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.0000			45-2632610				Barings Hotel Opportunity Venture I LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	65.000	MLLIC		
.0000							Barings Hotel Opportunity Venture I LP	DE	NIA	Barings LLC	Management	100.000	MLLIC		
.0000			04-1590850				Barings Miller Investment Trust	AUS	NIA	Massachusetts Mutual Life Insurance Company	Ownership	57.330	MLLIC		
.0000			04-1590850				Barings Miller Investment Trust	AUS	NIA	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	30.000	MLLIC		
.0000			81-4258759				Barings Real Estate European Value Add I SCSp	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	44.000	MLLIC		
.0000			81-4258759				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	29.000	MLLIC		
.0000			46-5460309				Barings Small Business Fund, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	33.600	MLLIC		
.0000			46-5460309				Barings U.S. High Yield Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	30.090	MLLIC		
.0000			46-0687392				Barings-MM Revolver Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	86.000	MLLIC		
.0000			04-1590850				Barings-MM Revolver Fund LP	DE	NIA	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							Forma Brands, LLC	DE	NIA	Beauty Brands Acquisition Intermediate LLC	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	3.800	MLLIC		
.0000			37-1506417				CREA Ridge Apartments, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							Euro Real Estate Holdings Herleshausen LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	47.500	MLLIC		
.0000							London Office JV Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		
.0000							Riverwalk MM Member, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLLIC		2
.0000			83-0560183				Aland Royalty Holdings LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	26.690	MLLIC		3
.0000			83-0560183				Aland Royalty Holdings LP	DE	NIA	Barings LLC	Management		MLLIC		
.0000			81-2244465				Chassis Acquisition Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	30.000	MLLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	40.000	MLLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	DE	NIA	Barings LLC	Influence		MLLIC		
.0000							EIP Holdings I, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	29.000	MLLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	31.520	MLLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Barings LLC	Influence		MLLIC		
.0000			46-0687392				Validus Holding Company LLC	DE	NIA	Barings LLC	Ownership	40.440	MLLIC		

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.0000			04-1590850				SBNP SIA II LLC	..DE.....	NIA.....	Barings LLC	Ownership.....	100.000	MLLIC		
.0000							SBNP SIA III LLC	..DE.....	NIA.....	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			36-037260H				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			37-15576VH				Barings CLO Ltd. 2017-I	..CYM.....	NIA.....	Barings LLC	Influence.....		MLLIC		
.0000							Barings CLO 2018-III	..CYM.....	NIA.....	Barings LLC	Influence.....		MLLIC		
.0000							Barings CLO 2018-IV	..CYM.....	NIA.....	Barings LLC	Influence.....		MLLIC		
.0000			98-1473665				Barings CLO 2019-I	..CYM.....	NIA.....	Barings LLC	Influence.....		MLLIC		
.0000			98-1332384				Barings CLO 2019-III	..CYM.....	NIA.....	Barings LLC	Influence	..91.220	MLLIC		
.0000							Barings CLO 2019-IV	..CYM.....	NIA.....	Barings LLC	Influence.....	..67.500	MLLIC		
.0000							Barings CLO 2020-I	..CYM.....	NIA.....	Barings LLC	Influence.....	..3.540	MLLIC		
.0000							Barings CLO 2020-II	..CYM.....	NIA.....	Barings LLC	Influence.....		MLLIC		
.0000							Barings CLO 2020-III	..CYM.....	NIA.....	Barings LLC	Influence.....	..12.500	MLLIC		
.0000							Barings CLO 2020-IV	..CYM.....	NIA.....	Barings LLC	Influence.....	..0.700	MLLIC		
.0000							Barings CLO 2021-I	..CYM.....	NIA.....	Barings LLC	Influence.....		MLLIC		
.0000							Barings CLO 2021-II	..CYM.....	NIA.....	Barings LLC	Influence	..70.780	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			87-0977058				Babson Euro CLO 2014-II BV	..NLD.....	NIA.....	Barings LLC	Influence	..51.030	MLLIC		
.0000			87-0977058				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.....	..29.700	MLLIC		
.0000			86-3661023				Barings Euro CLO 2019-II BV	..IRL.....	NIA.....	Barings LLC	Influence.....	..0.400	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			98-1612604				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			98-1332384				Barings Global Special Situations Credit 4 Delaware	..DE.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership	..67.230	MLLIC		
.0000			98-1332384				Barings Global Special Situations Credit 4 Delaware	..DE.....	NIA.....	C.M. Life Insurance Company	Ownership.....	..3.540	MLLIC		
.0000			98-1567942				Barings Global Special Situations Credit 4 Delaware	..DE.....	NIA.....	Barings LLC	Management.....	..18.470	MLLIC		

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.0000			98-1567942				Barings Global Special Situations Credit 4 LUX	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	13.200	MMLIC		
.0000			81-0841854				Barings Global Special Situations Credit 4 LUX	.LUX	NIA	C.M. Life Insurance Company	Ownership	0.700	MMLIC		
.0000			81-0841854				Barings Global Special Situations Credit 4 LUX	.LUX	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Europe Select Fund	.IRL	NIA	Barings LLC	Management	29.000	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	63.600	MMLIC		
.0000							Barings Middle Market CLO 2018-I	.CYM	NIA	Barings LLC	Influence	1.000	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	12.590	MMLIC		
.0000							Barings Middle Market CLO Ltd 2023-I	.BMJ	NIA	Barings LLC	Influence	0.800	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			04-1590850				Barings Euro Value Add II (BREEVA II)	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	27.500	MMLIC		
.0000			04-1590850				Barings Euro Value Add II (BREEVA II)	.LUX	NIA	C.M. Life Insurance Company	Ownership	2.400	MMLIC		
.0000							Barings Euro Value Add II (BREEVA II)	.LUX	NIA	Barings LLC	Management	100.000	MMLIC		
.0000			87-1262754				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			98-1607033				Braemar Energy Ventures I, L.P.	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.500	MMLIC		
.0000			98-1607033				Braemar Energy Ventures I, L.P.	.DE	NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC		
.0000			38-4041011				Braemar Energy Ventures I, L.P.	.DE	NIA	Barings LLC	Management		MMLIC		
.0000			38-4032059				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			04-1590850				Barings European Core Property Fund SCSp	.LUX	NIA	Barings Real Estate Advisers LLC	Management	100.000	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	0.800	MMLIC		
.0000			04-1590850				Benchmark 2018-B4	.NY	NIA	Barings LLC	Influence	100.000	MMLIC		
.0000			38-4096530				Benchmark 2018-B8	.NY	NIA	Barings LLC	Influence	100.000	MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	.DE	NIA	MassMutual Holding LLC	Ownership/Influence	24.400	MMLIC		

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend 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 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Rela- tion- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
. 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 ...			04-1590850 ..				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.....	99.000 ..	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.....	100.000 ..	MMLIC		
. 0000 ...			38-4041011 ..				JPMCC Commercial Mortgage Securities Trust 2017-JP7	.. NY.....	 NIA.....	Barings LLC	Influence.....	100.000 ..	MMLIC		
. 0000 ...			38-4032059 ..				JPMDB Commercial Mortgage Securities Trust 2017-C5	.. NY.....	 NIA.....	Barings LLC	Influence.....	100.000 ..	MMLIC		
. 0000 ...			35-2553915 ..				Martello Re Feeder LP	.. DE.....	 NIA.....	MassMutual Holding LLC	Ownership.....	44.000 ..	MMLIC		
. 0000 ...			41-2280127 ..				Martello Re LP	.. DE.....	 NIA.....	Martello Re Feeder LP	Ownership.....	54.000 ..	MMLIC		
. 0000 ...			41-2280127 ..				Martello Re Holding Limited LLC	.. DE.....	 NIA.....	Martello Re LP	Ownership	100.000 ..	MMLIC		
. 0000 ...			41-2280129 ..				Martello Re Limited	.. BMJ.....	 NIA.....	Martello Re Holding Limited LLC	Ownership	100.000 ..	MMLIC		
. 0000 ...			41-2280129 ..				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 Invetment Holding	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	100.000 ..	MMLIC		
. 0000 ...			32-0574045 ..				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.....	Massachusetts Mutual Life Insurance 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.....	 NIA.....	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.....	100.000 ..	MMLIC		

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 ...			41-2280127 ..				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.....	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.....	..90.000	MMLIC		
. 0000 ...			04-1590850 ..				Trailside MM Member LLC	.. DE.....	 NIA.....	Company	Ownership.....	..66.970	MMLIC		
. 0000 ...			04-1590850 ..				Trailside MM Member LLC	.. DE.....	 NIA.....	C.M. 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	Ownership.....	..6.720	MMLIC		
. 0000 ...			32-0574045 ..				Washington Gateway Three LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..95.230	MMLIC		
. 0000 ...			20-0348173 ..				MALIC Debt Participations LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC		
. 0000 ...			82-2783393 ..				Babson Capital Loan Strategies Master Fund LP	.. CYM.....	 NIA.....	Barings LLC	Management.....	..94.400	MMLIC		
. 0000 ...			04-1590850 ..				Barings China Aggregate Bond Private Securities Investment Fund	.. CHN.....	 NIA.....	Barings LLC	Management.....	..50.000	MMLIC		
. 0000 ...			47-3790192 ..				Barings Global High Yield Fund	.. MA.....	 NIA.....	Barings LLC	Management.....	..65.000	MMLIC		
. 0000 ...			71-1018134 ..				Great Lakes II LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..0.750	MMLIC		
. 0000 ...			71-1018134 ..				Great Lakes II LLC	.. DE.....	 NIA.....	C.M. 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 ...			81-5360103 ..				Barings California Mortgage Fund IV	.. CA.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC		
. 0000 ...			13-1935920 ..				Barings Umbrella Fund LUX SCSp SICAV RAIF ..	.. LUX.....	 NIA.....	Company	Ownership.....	..24.960	MMLIC		
. 0000 ...			04-1590850 ..				Barings Umbrella Fund LUX SCSp SICAV RAIF ...	.. LUX.....	 NIA.....	C.M. 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	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	Management.....	..0.380	MMLIC		
. 0000 ...			04-1590850 ..				Cornerstone Permanent Mortgage Fund III LLC ..	.. MA.....	 NIA.....	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		

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend 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 ...			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 ..	.....	0000927972 ..	OQ	MM Kannapolis Industrial Member LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..82.720	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000927972 ..	OQ	MM Kannapolis Industrial Member LLC	.. DE.....	 NIA.....	Massachusetts Mutual Ascend	Ownership.....	..12.280	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM East South Crossing Member LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..95.000	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM Horizon Savannah Member LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..95.000	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM Horizon Savannah Member LLC	.. DE.....	 NIA.....	C.M. Life Insurance Company	Ownership.....	..3.700	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM Horizon Savannah Member II LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..4.430	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM Horizon Savannah Member II LLC	.. DE.....	 NIA.....	C.M. Life Insurance Company	Ownership.....	..0.180	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM Horizon Savannah Member II LLC	.. DE.....	 NIA.....	Massachusetts Mutual Ascend	Ownership.....	..0.380	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM National Self-Storage Program Member LLC	.. DE.....	 NIA.....	C.M. Life Insurance Company	Ownership.....	..98.000	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM 1370 AVE OF AM LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..90.000	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM 1370 AVE OF AM LLC	.. DE.....	 NIA.....	C.M. Life Insurance Company	Ownership.....	..3.330	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	MM 1400 E 4th Street Member LLC	.. DE.....	 NIA.....	C.M. Life Insurance Company	Ownership.....	..96.000	MMLIC .....	.....	.....
. 0000 ...			80-0948028 ..	.....	0000916053 ..	OQ	One Harbor Shore LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..94.990	MMLIC .....	.....	.....
. 0000 ...			80-0948028 ..	.....	0000916053 ..	OQ	One Harbor Shore LLC	.. DE.....	 NIA.....	C.M. Life Insurance Company	Ownership.....	..6.030	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	Paco France Logistics LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			82-3481715 ..	.....	0000916053 ..	OQ	Salomon Brothers Commercial Mortgage Trust 2001-MM	.. DE.....	 NIA.....	Barings Real Estate Advisers LLC	Influence.....	.....	MMLIC .....	.....	.....
. 0000 ...			81-5273574 ..	.....	0000916053 ..	OQ	Three PW Office Holding LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..95.100	MMLIC .....	.....	.....
. 0000 ...			04-1590850 ..	.....	0000916053 ..	OQ	Trailside MM Member II LLC	.. DE.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..47.100	MMLIC .....	.....	.....
. 0000 ...			82-3250684 ..	.....	0000916053 ..	OQ	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 .....	.....	.....

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

1	2	3	4	5	6	7	8	9	10	11	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Owner- ship Provide Percen- tage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re- quired? (Yes/No)	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 Loca- tion	Relation- ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)					
.0000			88-3861481		0000916053	OQ	West 37th Street Hotel LLC	..DE	NIA	C.M. Life Insurance Company Massachusetts Mutual Life Insurance Company	Ownership	..6.200	MMLIC		
.0000			51-0529328		0000927972	OQ	MassMutual Premier Main Street Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..90.890	MMLIC		
.0000			26-3229251		0000927972	OQ	MassMutual Premier Strategic Emerging Markets Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..58.850	MMLIC		
.0000			42-1710935		0000916053	OQ	MassMutual Select Mid-Cap Value Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..35.710	MMLIC		
.0000			02-0769954		0000916053	OQ	MassMutual Select Small Capital Value Equity Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			04-3584140		0000916053	OQ	MassMutual Select Small Company Value Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..18.340	MMLIC		
.0000			82-3347422		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2005 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..10.000	MMLIC		
.0000			82-3355639		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2010 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3382389		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2015 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3396442		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2020 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..63.350	MMLIC		
.0000			82-3417420		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2025 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3430358		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2030 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3439837		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2035 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3451779		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2040 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3472295		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2045 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3481715		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2050 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3502011		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2055 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3525148		0000916053	OQ	MassMutual Select T. Rowe Price Retirement 2060 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			82-3533944		0000916053	OQ	MassMutual Select T. Rowe Price Retirement Balanced Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..99.790	MMLIC		
.0000			46-4257056		0000916053	OQ	MML Series International Equity Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			47-3529636		0000916053	OQ	MML Series II Dynamic Bond Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		
.0000			47-3544629		0000916053	OQ	MML Series II Equity Rotation Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..97.230	MMLIC		
.0000			27-1933389		0000916053	OQ	MassMutual RetireSMART 2035 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..3.280	MMLIC		
.0000			27-1932769		0000916053	OQ	MassMutual RetireSMART 2045 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..7.690	MMLIC		
.0000			46-3289207		0000916053	OQ	MassMutual RetireSMART 2055 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..21.960	MMLIC		
.0000			47-5326235		0000916053	OQ	MassMutual RetireSMART 2060 Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	..38.540	MMLIC		
.0000			45-1618155		0000916053	OQ	MassMutual 20/80 Allocation Fund	..MA	NIA	Massachusetts Mutual Life Insurance Company	Influence	..100.000	MMLIC		

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 Loca-tion	Rela-tion-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 Owner-ship Provide Percen-tage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
. 0000 ...			45-1618222 ..	.....	0000916053 ..	OQ	MassMutual 80/20 Allocation Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..36.460	MMLIC .....	.....	.....
. 0000 ...			03-0532464 ..	.....	0000916053 ..	OQ	MassMutual RetireSMART In Retirement Fund ...	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	.. 7.040	MMLIC .....	.....	.....
. 0000 ...			45-1618262 ..	.....	0000916053 ..	OQ	MassMutual 40/60 Allocation Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Influence.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			45-1618046 ..	.....	0000916053 ..	OQ	MassMutual 60/40 Allocation Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			45-1618046 ..	.....	0000916053 ..	OQ	MassMutual ishares 60/40 Allocation Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..59.950	MMLIC .....	.....	.....
. 0000 ...			04-3212054 ..	.....	0000916053 ..	OQ	MassMutual Balanced Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3556992 ..	.....	0000916053 ..	OQ	MassMutual Blue Chip Growth Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3277549 ..	.....	0000916053 ..	OQ	MassMutual Core Bond Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..21.020	MMLIC .....	.....	.....
. 0000 ...			04-3539084 ..	.....	0000916053 ..	OQ	MassMutual Disciplined Growth Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3539083 ..	.....	0000916053 ..	OQ	MassMutual Disciplined Value Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			01-0821120 ..	.....	0000916053 ..	OQ	MassMutual Diversified Value Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3512590 ..	.....	0000916053 ..	OQ	MassMutual Equity Opportunities Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3512589 ..	.....	0000916053 ..	OQ	MassMutual Growth Opportunities Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			03-0532475 ..	.....	0000916053 ..	OQ	MassMutual Inflation-Protected and Income Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..99.790	MMLIC .....	.....	.....
. 0000 ...			04-3512596 ..	.....	0000916053 ..	OQ	MassMutual Mid Cap Growth Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3464165 ..	.....	0000916053 ..	OQ	MassMutual Premier Diversified Bond Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			92-1441036 ..	.....	0000916053 ..	OQ	MassMutual RetireSMART by JPMorgan 2065 Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..92.320	MMLIC .....	.....	.....
. 0000 ...			45-1618222 ..	.....	0000916053 ..	OQ	MassMutual Select 80/20 Allocation Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3584138 ..	.....	0000916053 ..	OQ	MassMutual Select Fundamental Value Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			04-3557000 ..	.....	0000916053 ..	OQ	MassMutual Select Overseas Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			92-1427882 ..	.....	0000916053 ..	OQ	MassMutual Select T Rowe Price Retirement 2065 Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..23.000	MMLIC .....	.....	.....
. 0000 ...			04-3464205 ..	.....	0000916053 ..	OQ	MassMutual Small Cap Growth Equity Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..61.350	MMLIC .....	.....	.....
. 0000 ...			04-3424705 ..	.....	0000916053 ..	OQ	MassMutual Small Cap Opportunities Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..10.370	MMLIC .....	.....	.....
. 0000 ...			02-0769954 ..	.....	0000916053 ..	OQ	MassMutual Small Cap Value Equity Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			26-0099965 ..	.....	0000916053 ..	OQ	MassMutual Strategic Bond Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....
. 0000 ...			93-4168848 ..	.....	0000916053 ..	OQ	MassMutual Clinton Municipal Credit Opportunities Fund	.. MA.....	NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	..100.000	MMLIC .....	.....	.....

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 Loca-tion	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 Owner-ship Provide Percen-tage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Yes/No)	*
. 0000 ...			93-4190918 ..	.....	0000916053 ..	OQ	MassMutual Clinton Municipal Fund	.. MA.....	 NIA.....	Massachusetts Mutual Life Insurance Company	Ownership.....	100.000 ...	MMLIC .....	.....	.....
. 0000 ...			93-4193313 ..	.....	0000916053 ..	OQ	MassMutual Clinton Short-Term Municipal Fund	.. MA.....	 NIA.....	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.

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

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?	YES
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.	SEE EXPLANATION

AUGUST FILING

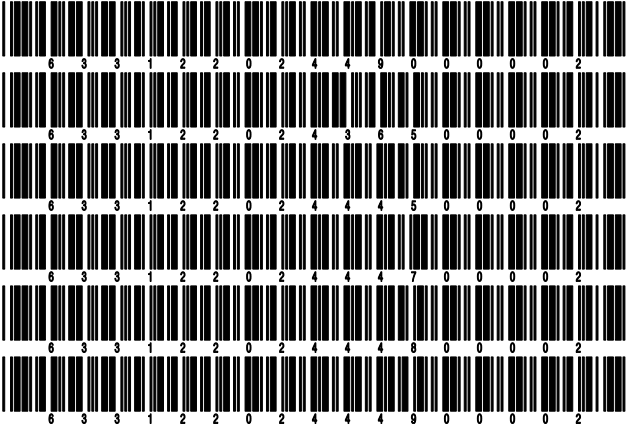
9. Will the regulator-only (non-public) Communication of Internal Control Related Matters Noted in Audit be filed with the state of domicile and electronically with the NAIC (as a regulator-only non-public document) by August 1? The response for 1st and 3rd quarters should be N/A. A NO response resulting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

Explanation:

1. The data for this supplement is not required to be filed.
2. The data for this supplement is not required to be filed.
3. The data for this supplement is not required to be filed.
5. The data for this supplement is not required to be filed.
6. The data for this supplement is not required to be filed.
7. The data for this supplement is not required to be filed.
8. The Company is utilizing an ongoing statement of exemption

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]
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]



STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend 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. Accounts receivable	18,195,984	6,248,067	11,947,917	6,495,920
2597. Summary of remaining write-ins for Line 25 from overflow page	18,195,984	6,248,067	11,947,917	6,495,920

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	789,759	50,295	54,818
08.397. Summary of remaining write-ins for Line 8.3 from overflow page	789,759	50,295	54,818

SCHEDULE A - VERIFICATION

Real Estate

	1	2
	Year to Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year		
2. Cost of acquired:		
2.1 Actual cost at time of acquisition		
2.2 Additional investment made after acquisition		
3. Current year change in encumbrances		
4. Total gain (loss) on disposals		
5. Deduct amounts received on disposals		
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		
9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8)		
10. Deduct total nonadmitted amounts		
11. Statement value at end of current period (Line 9 minus Line 10)		

SCHEDULE B - VERIFICATION

Mortgage Loans

	1	2
	Year to Date	Prior Year Ended December 31
1. Book value/recorded investment excluding accrued interest, December 31 of prior year	4,256,509,561	3,088,813,561
2. Cost of acquired:		
2.1 Actual cost at time of acquisition	596,083,889	1,756,164,211
2.2 Additional investment made after acquisition	87,386,326	124,941,328
3. Capitalized deferred interest and other	5,430,337	1,553,080
4. Accrual of discount	1,513,588	12,149,299
5. Unrealized valuation increase/(decrease)		0
6. Total gain (loss) on disposals	36,059	20,713
7. Deduct amounts received on disposals	242,200,429	715,396,315
8. Deduct amortization of premium and mortgage interest points and commitment fees	14,318,171	11,955,401
9. Total foreign exchange change in book value/recorded investment excluding accrued interest	(147,634)	219,085
10. Deduct current year's other than temporary impairment recognized		0
11. Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	4,690,293,526	4,256,509,561
12. Total valuation allowance		
13. Subtotal (Line 11 plus Line 12)	4,690,293,526	4,256,509,561
14. Deduct total nonadmitted amounts		0
15. Statement value at end of current period (Line 13 minus Line 14)	4,690,293,526	4,256,509,561

SCHEDULE BA - VERIFICATION

Other Long-Term Invested Assets

	1	2
	Year to Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	1,407,752,674	1,363,435,250
2. Cost of acquired:		
2.1 Actual cost at time of acquisition	86,184,852	111,126,612
2.2 Additional investment made after acquisition	104,164,008	253,810,230
3. Capitalized deferred interest and other	0	
4. Accrual of discount	1,508,072	18,437,513
5. Unrealized valuation increase/(decrease)	67,350,758	40,213,029
6. Total gain (loss) on disposals	1,590,087	(24,473,456)
7. Deduct amounts received on disposals	59,827,336	337,563,388
8. Deduct amortization of premium and depreciation	1,332,132	(1,868,276)
9. Total foreign exchange change in book/adjusted carrying value	(559,335)	320,433
10. Deduct current year's other than temporary impairment recognized	49,138,621	19,421,825
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	1,557,693,028	1,407,752,674
12. Deduct total nonadmitted amounts	10,530,524	
13. Statement value at end of current period (Line 11 minus Line 12)	1,547,162,504	1,407,752,674

SCHEDULE D - VERIFICATION

Bonds and Stocks

	1	2
	Year to Date	Prior Year Ended December 31
1. Book/adjusted carrying value of bonds and stocks, December 31 of prior year	35,889,697,885	34,200,158,053
2. Cost of bonds and stocks acquired	4,443,180,136	10,587,374,782
3. Accrual of discount	68,998,154	153,594,732
4. Unrealized valuation increase/(decrease)	55,242,584	22,186,367
5. Total gain (loss) on disposals	(100,128,348)	(443,074,595)
6. Deduct consideration for bonds and stocks disposed of	3,469,284,111	8,457,950,336
7. Deduct amortization of premium	10,668,921	108,381,453
8. Total foreign exchange change in book/adjusted carrying value	(16,806,214)	19,484,345
9. Deduct current year's other than temporary impairment recognized	26,457,062	83,694,011
10. Total investment income recognized as a result of prepayment penalties and/or acceleration fees		0
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	36,833,774,103	35,889,697,885
12. Deduct total nonadmitted amounts	0	0
13. Statement value at end of current period (Line 11 minus Line 12)	36,833,774,103	35,889,697,885

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend 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)	20,814,947,762	4,105,101,111	3,646,104,821	237,901,535	20,814,947,762	21,511,845,587	0	20,587,542,236
2. NAIC 2 (a)	15,133,208,386	21,836,777,218	20,374,820,148	(1,191,040,704)	15,133,208,386	15,404,124,752	0	14,265,448,635
3. NAIC 3 (a)	1,265,821,956	116,483,850	122,612,471	(15,041,356)	1,265,821,956	1,244,651,980	0	1,252,366,009
4. NAIC 4 (a)	442,473,529	67,717,334	55,815,458	21,382,694	442,473,529	475,758,098	0	494,396,912
5. NAIC 5 (a)	248,030,788	(25,875)	24,496,494	12,859,941	248,030,788	236,368,359	0	271,743,826
6. NAIC 6 (a)	34,067,263	683,968	4,107,877	39,698,609	34,067,263	70,341,963	0	41,900,864
7. Total Bonds	37,938,549,683	26,126,737,606	24,227,957,269	(894,239,281)	37,938,549,683	38,943,090,739	0	36,913,398,482
PREFERRED STOCK								
8. NAIC 1	0	15,000,000	0	0	0	15,000,000	0	4,914,449
9. NAIC 2	244,611,090	(29,747,770)	495,000	13,840,364	244,611,090	228,208,684	0	161,940,169
10. NAIC 3	7,793,201	910,859		(6,961,283)	7,793,201	1,742,777	0	6,998,696
11. NAIC 4	3,000,000	500,000	0	0	3,000,000	3,500,000	0	3,000,000
12. NAIC 5	28,280,574	0		(2,682,443)	28,280,574	25,598,131	0	24,141,839
13. NAIC 6	(332,829)	3,000,000		(2,782,109)	(332,829)	(114,938)	0	31,076
14. Total Preferred Stock	283,352,036	(10,336,911)	495,000	1,414,529	283,352,036	273,934,654	0	201,026,229
15. Total Bonds and Preferred Stock	38,221,901,718	26,116,400,695	24,228,452,269	(892,824,752)	38,221,901,718	39,217,025,392	0	37,114,424,711

(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 \$641,000,130 ; NAIC 2 \$2,520,461,393 ; NAIC 3 \$ NAIC 4 \$437,500 ; NAIC 5 \$0 ; NAIC 6 \$0

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	506,457,996	xxx	501,694,747	2,142,033	0

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	424,197,318	389,684,178
2. Cost of short-term investments acquired	618,708,898	969,540,658
3. Accrual of discount	9,944,416	13,275,593
4. Unrealized valuation increase/(decrease)		0
5. Total gain (loss) on disposals		(31,610)
6. Deduct consideration received on disposals	546,392,636	948,271,501
7. Deduct amortization of premium	0	0
8. Total foreign exchange change in book/adjusted carrying value	0	0
9. Deduct current year's other than temporary impairment recognized	0	0
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)	506,457,996	424,197,318
11. Deduct total nonadmitted amounts	0	0
12. Statement value at end of current period (Line 10 minus Line 11)	506,457,996	424,197,318

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)	222,241,110
2.	Cost Paid/(Consideration Received) on additions	346,286,354
3.	Unrealized Valuation increase/(decrease)	71,338,951
4.	SSAP No. 108 adjustments	
5.	Total gain (loss) on termination recognized	490,764,227
6.	Considerations received/(paid) on terminations	490,423,795
7.	Amortization	(309,242,435)
8.	Adjustment to the Book/Adjusted Carrying Value of hedged item	
9.	Total foreign exchange change in Book/Adjusted Carrying Value	
10.	Book/Adjusted Carrying Value at End of Current Period (Lines 1+2+3+4+5-6+7+8+9)	330,964,412
11.	Deduct nonadmitted assets	
12.	Statement value at end of current period (Line 10 minus Line 11)	330,964,412

SCHEDULE DB - PART B - VERIFICATION

Futures Contracts

1.	Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)	20,973,705
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	0
3.12	Section 1, Column 15, prior year	0
	Change in variation margin on open contracts - All Other	
3.13	Section 1, Column 18, current year to date minus	(661,806)
3.14	Section 1, Column 18, prior year	20,973,705
3.2	Add:	
	Change in adjustment to basis of hedged item	
3.21	Section 1, Column 17, current year to date minus	0
3.22	Section 1, Column 17, prior year	0
	Change in amount recognized	
3.23	Section 1, Column 19, current year to date minus	(661,806)
3.24	Section 1, Column 19, prior year plus	20,973,705
3.25	SSAP No. 108 adjustments	(21,635,511)
3.3	Subtotal (Line 3.1 minus Line 3.2)	0
4.1	Cumulative variation margin on terminated contracts during the year	(26,262,405)
4.2	Less:	
	4.21 Amount used to adjust basis of hedged item	
	4.22 Amount recognized	(47,236,110)
	4.23 SSAP No. 108 adjustments	(47,236,110)
4.3	Subtotal (Line 4.1 minus Line 4.2)	20,973,705
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	661,806
6.	Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)	(661,806)
7.	Deduct total nonadmitted amounts	
8.	Statement value at end of current period (Line 6 minus Line 7)	(661,806)

Schedule DB - Part C - Section 1 - Replication (Synthetic Asset) Transactions (RSATs) Open
N O N E

Schedule DB-Part C-Section 2-Reconciliation of Replication (Synthetic Asset) Transactions Open
N O N E

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.....	330,964,335
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance.....	0
3.	Total (Line 1 plus Line 2)	330,964,335
4.	Part D, Section 1, Column 6	844,380,852
5.	Part D, Section 1, Column 7	(514,078,323)
6.	Total (Line 3 minus Line 4 minus Line 5)	661,806
		Fair Value Check
7.	Part A, Section 1, Column 16	952,331,904
8.	Part B, Section 1, Column 13	(661,806)
9.	Total (Line 7 plus Line 8)	951,670,098
10.	Part D, Section 1, Column 9	1,095,590,953
11.	Part D, Section 1, Column 10	(143,920,855)
12.	Total (Line 9 minus Line 10 minus Line 11)	0
		Potential Exposure Check
13.	Part A, Section 1, Column 21	87,770,783
14.	Part B, Section 1, Column 20	5,888,300
15.	Part D, Section 1, Column 12	93,659,083
16.	Total (Line 13 plus Line 14 minus Line 15)	0

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	1,944,403,033	1,535,691,774
2. Cost of cash equivalents acquired	45,471,185,519	105,964,099,263
3. Accrual of discount	62,861,331	71,821,164
4. Unrealized valuation increase/(decrease)		0
5. Total gain (loss) on disposals	2,345	10,949
6. Deduct consideration received on disposals	44,703,035,107	105,627,220,117
7. Deduct amortization of premium	0	0
8. Total foreign exchange change in book/adjusted carrying value	0	0
9. Deduct current year's other than temporary impairment recognized	0	0
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)	2,775,417,122	1,944,403,033
11. Deduct total nonadmitted amounts	0	0
12. Statement value at end of current period (Line 10 minus Line 11)	2,775,417,122	1,944,403,033

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE A - PART 2

Showing All Real Estate ACQUIRED AND ADDITIONS MADE During the Current Quarter

[illegible]

SCHEDULE A - PART 3

Showing All Real Estate DISPOSED During the Quarter, Including Payments During the Final Year on "Sales Under Contract"

[illegible]

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE B - PART 2

Showing All Mortgage Loans ACQUIRED AND ADDITIONS MADE During the Current Quarter

1 Loan Number	Location		4 Loan Type	5 Date Acquired	6 Rate of Interest	7 Actual Cost at Time of Acquisition	8 Additional Investment Made After Acquisition	9 Value of Land and Buildings
	2 City	3 State						
155020KL3	Various	TX		10/01/2021	2.990		4,938	829,497
B6S2919H2	Various	FL		04/04/2024	4.040	34,956,840		31,862,418
0299999. Mortgages in good standing - Residential mortgages-insured or guaranteed						34,956,840	4,938	32,691,915
121836H14	Various	HI		01/19/2023	8.405		51	834,111
121836XY1	Various	NJ		09/21/2023	9.021		1,164	4,214,381
146738AB5	Various	FL		11/29/2022	8.463	(785,978)		4,186,281
146738BC2	Various	FL		12/09/2022	9.340	778,083		2,101,604
146738CD9	Various	WA		12/22/2022	11.670	20,285		4,837,687
146738DE6	Various	FL		01/11/2023	9.905	685,438		2,708,877
146738EF2	Various	PA		01/26/2023	10.028	300,887		3,792,750
146738FG9	Various	MA		02/09/2023	10.154	1,262,370		4,027,897
161225OR1	Various	NY		05/18/2023	7.955		7,983	21,103,823
209999ZB0	Various	SC		11/15/2019	3.260		2,660,562	40,966,794
209999ZC8	Various	SC		04/28/2020	3.260		3,125,813	38,371,246
243820AF4	Various	CO		12/15/2023	8.625	(1,565)		168,633
489123ZD4	Various	NY		11/16/2023	8.710		5,083	6,814,971
62938YEO	Various	FL		07/15/2022	7.003		9,068	15,529,841
BC01531674	Various	VA		11/07/2023	8.825		(72,099)	14,873,202
BC01874636	Various	NJ		05/09/2024	9.980	7,704,474		7,657,337
B6S16AYD8	Various	TX		10/14/2021	6.690		2,084,870	28,204,766
B6S16B3F5	Various	OH		01/18/2022	3.600		4,200,000	90,159,140
B6S272DT1	Various	FL		02/29/2024	8.670	(262,177)		7,322,275
B6S28LBN3	Various	CA		03/28/2024	7.480	2,907,850		2,888,705
B6S29H2G6	Various	CA		04/11/2024	7.970	7,161,854		7,188,573
B6S29JX94	Various	FL		04/11/2024	8.370	18,675,559		18,749,210
B6S29VH79	Various	CA		04/11/2024	9.570	15,366,498		15,235,182
B6S2AB1G8	Various	CO		04/18/2024	7.920	6,168,864		6,190,488
B6S2AX8X6	Various	CA		04/25/2024	8.413	10,148,088		10,245,567
B6S2AZPX2	Various	FL		04/25/2024	9.740	16,643,345		16,525,052
B6S2AZRT9	Various	CA		04/25/2024	7.633	2,616,502		2,635,151
B6S2B5J06	Various	TX		04/26/2024	8.350	2,165,138		2,170,613
B6S2BKNT5	Various	CA		05/02/2024	7.500	8,322,017		8,264,559
B6S2C6K27	Various	CA		05/09/2024	7.700	8,583,836		8,583,875
B6S2D2F96	Various	FL		05/16/2024	7.813	13,081,593		12,965,199
B6S2D2FR6	Various	NJ		05/16/2024	7.914	7,262,619		7,296,158
B6S2DP7D5	Various	CA		05/23/2024	9.620	854,475		854,475
B6S2DPFS3	Various	AZ		05/23/2024	8.570	6,915,995		6,915,995
B6S2DSSB0	Various	FL		05/23/2024	6.398	31,496,866		22,698,103
B6S2EBG86	Various	FL		05/28/2024	8.250	8,162,319		8,291,993
B6S2EYCC1	Various	CA		06/06/2024	7.850	6,327,513		6,317,656
B6S2F2V21	Various	WA		06/13/2024	7.830	1,930,116		1,930,116
B6S2F2WD6	Various	NJ		06/13/2024	7.522	11,374,088		11,345,190
B6S2F5SJ1	Various	CA		06/26/2024	7.870	8,548,751		8,540,136
B6S2F5Z07	Various	MA		06/13/2024	9.290	29,184,638		16,952,337
0399999. Mortgages in good standing - Residential mortgages-all other						233,600,341	12,022,495	500,659,949
N216311	Salt Lake City	UT		07/19/2022	12.930			87,743,502
N226021	Arlington	VA		05/05/2022	4.490		5,607,714	108,131,878
N226161	Flower Mound	TX		12/02/2022	10.830		1,421,453	12,609,864
N236011	Philadelphia	PA		06/23/2023	10.330		1,157,997	13,632,247
N236081	Bedford	MA		07/27/2023	10.580		1,528,926	85,130,891
N236101	Lancaster	TX		09/20/2023	10.080		1,183,704	26,571,427
N236131	Beverly Hills	CA		10/30/2023	10.830		217,716	34,951,375
N23A021	Willawong	AUS		08/02/2023	10.340		1,254,837	7,185,403
N23A031	Te Kauwhata	NZL		12/21/2023	10.090		943,713	10,028,378
N244011	Edgerton	KS		05/23/2024	8.250	29,999,995		52,733,598

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE B - PART 2

Showing All Mortgage Loans ACQUIRED AND ADDITIONS MADE During the Current Quarter

1 Loan Number	2 Location		4 Loan Type	5 Date Acquired	6 Rate of Interest	7 Actual Cost at Time of Acquisition	8 Additional Investment Made After Acquisition	9 Value of Land and Buildings
	2 City	3 State						
N246081	Darien	CT		06/25/2024	10.830	990,196		3,823,529
0599999. Mortgages in good standing - Commercial mortgages-all other						30,990,191	24,357,108	442,542,092
N226091	Brooklyn	NY		11/16/2022	14.580			
0699999. Mortgages in good standing - Mezzanine Loans							4,371,891	293,999,510
0899999. Total Mortgages in good standing						0	4,371,891	293,999,510
1699999. Total - Restructured Mortgages						299,547,372	40,756,432	1,269,893,466
2499999. Total - Mortgages with overdue interest over 90 days						0	0	0
3299999. Total - Mortgages in the process of foreclosure						0	0	0
3399999 - Totals						299,547,372	40,756,432	1,269,893,466

SCHEDULE B - PART 3

Showing All Mortgage Loans DISPOSED, Transferred or Repaid During the Current Quarter

1	Location		4	5	6	7	Change in Book Value/Recorded Investment						14	15	16	17	18
	2	3				Book Value/ Recorded Investment Excluding Accrued Interest Prior Year	8	9	10	11	12	13	Book Value/ Recorded Investment Excluding Accrued Interest on Disposal		Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal
Loan Number	City	State	Loan Type	Date Acquired	Disposal Date		Unrealized Valuation Increase/ (Decrease)	Current Year's (Amortization) /Accretion	Current Year's Other- Than- Temporary Impairment Recognized	Capitalized Deferred Interest and Other	Total Change in Book Value (8+9-10+11)	Total Foreign Exchange Change in Book Value		Consid- eration			
NAG0531	Tucson	AZ.....	.....	06/01/2021	05/30/2024	16,457,127 .....	.....	.....	.....	.....	0 .....	.....	16,457,127	16,457,127 .....	.....	.....	0
0199999. Mortgages closed by repayment						16,457,127	0	0	0	0	0	0	16,457,127	16,457,127	0	0	0
Residential											0 .....	.....	106,442,241	106,280,959 .....	.....	(161,282)	(161,282)
Commercial											0 .....	.....	3,162,846	3,162,846 .....	.....	(161,282)	(161,282)
0299999. Mortgages with partial repayments						0	0	0	0	0	0	0	109,605,087	109,443,805	0	(161,282)	(161,282)
B001531674	Various	VA.....	.....	11/07/2023 .....	.....	.....	.....	.....	.....	.....	0 .....	.....	17,018,141	17,018,141 .....	.....	.....	0
0499999. Mortgages transferred						0	0	0	0	0	0	0	17,018,141	17,018,141	0	0	0
0599999 - Totals						16,457,127	0	0	0	0	0	0	143,080,355	142,919,073	0	(161,282)	(161,282)

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE BA - PART 2

Showing Other Long-Term Invested Assets ACQUIRED AND ADDITIONS MADE During the Current Quarter

1	2	Location		5	6	7	8	9	10	11	12	13
		3	4									
CUSIP Identification	Name or Description	City	State	Name of Vendor or General Partner	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol	Date Originally Acquired	Type and Strategy	Actual Cost at Time of Acquisition	Additional Investment Made After Acquisition	Amount of Encumbrances	Commitment for Additional Investment	Percentage of Ownership
000000-00-0	2781 FIRST EAGLE DCF A FUNDING LLC	Boston	MA	First Eagle DCF Manager LLC		07/06/2023	1	0	400,000	0	2,000,000	1.330
000000-00-0	6118 Yukon Capital Partners II LP	Minneapolis	MN	Yukon Partners II LLC		07/17/2014	2	0	23,794	0	550,187	0.779
000000-00-0	6123 NB Private Equity Credit Opportunities Fund LP	New York	NY	NB Private Equity Credit Opp Assocs LP		06/07/2017		0	356,392	0	700,000	0.842
000000-00-0	6124 Yukon Capital Partners III LP	Minneapolis	MN	Yukon Partners III LLC		07/18/2017	2	0	10,410	0	841,280	0.029
000000-00-0	6133 PineBridge Private Credit Feeder LP	New York	NY	PineBridge Private Credit Gen Part LP		11/28/2018		0	298,544	0	1,820,548	9.870
000000-00-0	6137 Cyprum Parallel Investors V LP	Cleveland	OH	Cyprum V Management LLC		08/15/2019		0	131,318	0	679,463	3.398
1799999	Joint Venture Interests - Fixed Income - NAIC Designation Not Assigned by the SVO - Unaffiliated							0	1,220,458	0	6,591,478	XXX
000000-00-0	2416 Gryphon Partners VI LP	San Francisco	CA	Gryphon GenPar VI LP		11/26/2021	3	0	66,184	0	948,556	0.427
000000-00-0	2558 JFL-NG Continuation Fund	New York	NY	J F Lehman & Company		10/27/2021	3	0	24,882	0	2,029,775	2.018
000000-00-0	2584 One Equity Partners VIII LP	New York	NY	One Equity Partners		01/26/2022	3	0	282,344	0	221,209	0.408
000000-00-0	2624 KLCP Domestic Fund III LP	New York	NY	Kennedy Lewis GP III LLC		12/27/2021	3	0	499,913	0	1,456,571	0.920
000000-00-0	2644 SDC Digital Infrastructure Opportunity Fund III LP	New York	NY	SDC DIOF III GP LP		04/25/2022	1	0	291,055	0	1,854,701	0.328
000000-00-0	2656 Trident IX LP	Greenwich	CT	Trident Capital IX LP		06/24/2022	1	0	334,185	0	2,127,352	
000000-00-0	2657 A&M Capital Partners III LP	Greenwich	CT	A&M Capital GP III LP		12/16/2022	3	0	23,707	0	3,700,116	
000000-00-0	2665 AEA Growth Equity Fund LP	San Francisco	CA	AEA Growth		04/29/2022	3	0	49,878	0	1,388,619	2.063
000000-00-0	2686 SER Capital Partners I LP	Houston	TX	Apollo Global Management		07/31/2021	3	0	363,013	0	1,164,668	1.951
000000-00-0	2692 NexPhase Capital Fund V LP	New York	NY	NexPhase Capital Fund IV GP LP		12/16/2022	3	0	420,008	0	4,388,275	3.573
000000-00-0	2693 Sunstone Partners III Main LP	San Mateo	CA	Sunstone Partners		04/12/2023	3	0	230,343	0	3,255,429	0.595
000000-00-0	2710 Asper DHUK LP	London SE1 9SG		Asper Investment Management		10/21/2022	3	0	18,256	0	3,026,552	1.216
000000-00-0	2717 Amersand 2022 LP	Wellesley	MA	ANP CF Management Company Ltd Partner		11/02/2022	3	0	363,750	0	4,393,750	0.404
000000-00-0	2733 Capital Z Partners (MGA) L.P.	New York	NY	Capital Z Partners		12/14/2022	3	0	27,495	0		1.054
000000-00-0	2750 IPCC Fund LP	Wilmington	DE	IPCC GP LLC		05/25/2023	1	0	667,369	0	1,421,210	0.400
000000-00-0	2771 LS Power Fund V Feeder 1 LP	New Castle County	DE	LS Power Fund V GP LLC		12/04/2023	3	0	15,739	0	4,862,692	0.170
000000-00-0	2774 Terramont SC Co-Invest LP	New York	NY	Terramont Infrastructure Partners		08/01/2023	3	0	10,614	0	1,021,277	12.760
000000-00-0	2776 JFL Equity Investors VI LP	New York	NY	JFL GP Investors IV LLC		09/05/2023	3	0	327,233	0	1,443,518	0.150
000000-00-0	2780 Amulet Capital Fund III LP	Greenwich	CT	Amulet Capital Fund II GP LP		08/01/2023	3	0	18,658	0	3,006,808	0.360
000000-00-0	2800 Blue Ocean Income Fund III LP	New York	NY	Blue Ocean GP LLC		11/07/2023	3	0	1,912,699	0	902,789	0.150
000000-00-0	2802 Ara USDCF US Co Invest LP	Houston	TX	Ara Infrastructure		02/16/2024	3	0	266,192	0	3,008,732	3.333
000000-00-0	2804 EIV Capital Fund V LP	Houston	TX	EIV Fund Advisors IV LLC		06/03/2024	3	896,759	0	0	4,130,982	0.500
000000-00-0	2813 OSP BELL AGGREGATOR LP	Wilmington	DE	OceanSound Partners II		04/30/2024	2	39,000	0	0	0	0.021
000000-00-0	2828 KLAR Partners II SCSp	London		KLAR Partners		05/21/2024	3	426,768	0	0	2,106,913	0.277
000000-00-0	2834 Apollo Asset-Backed Finance Lending Company, L.P.	Wilmington	DE	Apollo ABF Advisors GP LLC		06/28/2024	3	2,000,000	0	0	3,000,000	0.500
000000-00-0	6012 NB Strategic Co-Investment Partners III LP	New York	NY	NB Strat Co-Investment Assoc III GP LLC		01/28/2016	3	0	27	0	697,832	0.875
000000-00-0	6030 Snow Phipps II LP	New York	NY	Snow Phipps GP II LP		01/08/2010	3	0	26,649	0	81,872	1.063
000000-00-0	6031 Snow Phipps III LP	New York	NY	Snow Phipps GP III LLC		06/08/2016	3	0	45,342	0	1,179,950	1.066
000000-00-0	6034 Solamere Capital Fund II-A LP	Cincinnati	OH	Snow Phipps GP III LLC		08/19/2013	3	0	53,574	0	531,365	2.087
000000-00-0	6048 Gryphon Partners V LP	San Francisco	CA	Gryphon GenPar V LP		08/29/2018		0	66,454	0	0	0.570
000000-00-0	6058 Cintrifuse Syndicate Fund II, LLC	Cincinnati	OH	Cintrifuse Fund Management II LLC		09/18/2017	1	0	68,740	0	185,522	4.477
000000-00-0	6065 Corsair Boomer Investors LP	New York	NY	Corsair Boomer Management LP		06/25/2018		0	7,887	0	0	7.163
000000-00-0	6066 Corsair V Financial Services Capital Partners LP	New York	NY	Rivercrest Capital GP LLC		06/25/2018		0	10,657	0	2,699,709	1.360
000000-00-0	6067 NB Dyal IV US Investors LP	New York	NY	NB Dyal Associates IV LP		06/11/2018	3	0	32,952	0	4,828,491	0.273
000000-00-0	6073 Roark Capital Partners Fund V LP	Atlanta	GA	Roark Capital GenPar V LP		11/01/2018		0	402,326	0	536,502	0.144
000000-00-0	6076 Blackstone Tactical Opportunities Fund III LP	New York	NY	Blackstone Tac Opportunities Assoc 3 LLC		02/08/2019		0	31,237	0	0	0.243
000000-00-0	6078 TriArtisan PFC Partners LLC	New York	NY	Get Me Mears Group Holdings LLC		02/27/2019		0	8,550	0	0	10.110
000000-00-0	6086 Gallant Capital Partners I LP	Los Angeles	CA	CincyTech LLC		05/29/2020		0	17,330	0	859,112	3.145
000000-00-0	6089 Bridge Growth Partners II LP	New York	NY	Bridge Growth Partners LP		10/01/2021		0	441,424	0	1,322,508	5.086
000000-00-0	6092 Corsair Indigo Investors LP	New York	NY	Corsair Indigo Management LP		12/07/2020		0	14,982	0	580,826	5.993
000000-00-0	6095 Greenspring Opportunities VI LP	Owning Mills	MD	Greenspring Opportunities VI LP		01/21/2020		0	50,000	0	125,000	0.400
000000-00-0	6098 Dyal V US Investors LP	New York	NY	NB Dyal Associates V LP		10/01/2021		0	787,500	0	5,253,976	0.145
000000-00-0	6100 NB Strategic Co-Investment Partners IV LP	New York	NY	NB Alternatives Advisors LLC		01/29/2020		0	371,400	0	350,155	0.493
000000-00-0	6101 Revelstoke EPIC Fund I LP	Denver	CA	ROP Single Asset Fund I GP LLC		10/01/2021		0	4,247	0	150,836	0.410
000000-00-0	6102 Riverwood Capital Partners III LP	Menlo Park	CA	Riverwood Capital III LP		03/27/2020		0	48,927	0	421,914	0.682
000000-00-0	6104 Vivo Capital Fund IX LP	Palo Alto	CA	Vivo Capital IX LLC		09/09/2019		0	62,086	0	197,808	0.350

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE BA - PART 2

Showing Other Long-Term Invested Assets ACQUIRED AND ADDITIONS MADE During the Current Quarter

1	2	Location		5	6	7	8	9	10	11	12	13
		3	4									
CUSIP Identification	Name or Description	City	State	Name of Vendor or General Partner	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol	Date Originally Acquired	Type and Strategy	Actual Cost at Time of Acquisition	Additional Investment Made After Acquisition	Amount of Encumbrances	Commitment for Additional Investment	Percentage of Ownership
000000-00-0	6139 GreyLion Capital LP	New York	NY	GreyLion Capital GP LP .....	.....	08/20/2014 .....	.....	0	20,657	0	1,451,069	2.833
000000-00-0	6140 GreyLion Capital II LP	New York	NY	GreyLion Capital II GP LP .....	.....	02/28/2018 .....	.....	0	29,724	0	1,402,904	1.202
000000-00-0	6142 TriArtisan Orlando Partners LLC	New York	NY	TriArtisan Orlando IM LLC .....	.....	03/12/2018 .....	.....	0	16,552	0	.....	11.502
000000-00-0	6143 Private Equity Solutions SCSP	Luxembourg	DE	DIVS Investment SA .....	.....	12/16/2019 .....	.....	0	105,594	0	1,053,627	1.585
000000-00-0	2826A WHCO INVESTMENTS DE PARENT LP Sidecar	Wilmington	DE	WHCO ADVISORS GP LTD .....	.....	04/16/2024	3	3,374,546	0	0	50,000,000	5.000
000000-00-0	2820 MEGAWATT ACQUISITION PARTNERS LLC	Wilmington	DE	MEGAWATT ACQUISITION PARTNERS LLC .....	.....	03/01/2024	2	(4,900)	4,900	0	.....	.....
1999999. Joint Venture Interests - Common Stock - Unaffiliated								6,732,173	8,943,235	0	128,771,473	XXX
000000-00-0	2773 Arrow Prince Co-Investment SCSp	Grand Duchy of Luxembourg .....	.....	Bow Advisers II S a r l .....	.....	07/25/2023	3	0	106,494	0	.....	16.667
000000-00-0	2792 Hayfin Maritime Yield Fund LP	George Town .....	.....	HAYFIN MARITIME YIELD FUND GP LIMITED .....	.....	10/25/2023	3	0	275,068	0	1,713,643	.....
000000-00-0	2844 CB Addison Holdings LLC	New York	NY	Centerbridge Partners LP .....	.....	06/30/2024	3	10,562,049	0	0	.....	100.000
000000-00-0	2849 CP Argo Marina Holdings	New York	NY	Centerbridge Partners LP .....	.....	06/30/2024	3	870,900	0	0	.....	43.478
000000-00-0	6108 NB Real Estate Secondary Opportunities Fund LP	New York	NY	NB Real Estate Secondary Opp Assoc LP .....	.....	12/05/2018 .....	.....	0	689,179	0	3,051,400	1.688
000000-00-0	6110 Lubert-Adler Workforce Housing Fund LP	Philadelphia	PA	Lubert-Adler Group WH LP .....	.....	10/01/2021 .....	.....	0	750,000	0	375,000	3.855
2199999. Joint Venture Interests - Real Estate - Unaffiliated								11,432,949	1,820,741	0	5,140,043	XXX
000000-00-0	2458 Barings Innovations & Growth Real Estate Fund	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	10/06/2021 .....	.....	0	.....	15,793,787	.....	.....
000000-00-0	2525 MM BIG Peninsula Co-Invest Member LLC	Hartford	CT	Massachusetts Mutual Life Ins Co .....	.....	06/30/2021 .....	.....	0	.....	2,601,565	12,597,873	.....
000000-00-0	2530 MM Horizon Savannah Member LLC	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	10/25/2021 .....	.....	0	.....	3,641,488	.....	.....
000000-00-0	2676 Trailside MM Member II LLC	Hartford	CT	Massachusetts Mutual Life Ins Co .....	.....	07/26/2022	3	0	1,971,686	883,322	1,100,404	19.880
000000-00-0	2731 MM Kannapolis Industrial Member LLC	Boston	MA	Massachusetts Mutual Life Ins Co .....	.....	02/08/2023 .....	.....	0	.....	816,169	1,153,804	.....
000000-00-0	2530A MM Horizon Savannah Member II LLC	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	03/15/2024	3	(7,303)	7,303	0	.....	.....
000000-00-0	2833 Barings Miller Investment Trust	Sydney .....	.....	Barings Australia Asset Management Pty .....	.....	06/28/2024	3	4,647,075	0	0	.....	9.330
2299999. Joint Venture Interests - Real Estate - Affiliated								4,639,772	1,978,989	23,736,331	14,852,081	XXX
000000-00-0	2461 Barings Real Estate Debt Income Fund LP	Hartford	CT	BREDIF GP LLC .....	.....	03/24/2021	3	0	1,504,144	0	.....	11.742
000000-00-0	2461A Barings Real Estate Debt Income Fund LP	Hartford	CT	BREDIF GP LLC .....	.....	03/24/2021	3	0	18,796,003	0	.....	.....
000000-00-0	2735 MALIC Debt Participations LLC	Charlotte	NC	MassMutual Ascend Life Insurance Company .....	.....	02/06/2023	3	0	6,880	0	.....	100.000
2499999. Joint Venture Interests - Mortgage Loans - Affiliated								0	20,307,027	0	0	XXX
000000-00-0	2590 Woodland Parent LLC	Wilmington	DE	Woodland Graham Holdings GP LLC .....	.....	12/01/2021	2	0	55,867	0	.....	0.016
000000-00-0	2673 KSL Capital Partners CV I LP	Denver	CO	KSL Capital Partners .....	.....	05/25/2022	1	0	1,205,852	0	154,057	0.578
000000-00-0	2742 OceanSound Partners Co-Invest II LP Series F	New York	NY	OceanSound Partners .....	.....	03/01/2023	3	0	361,064	0	.....	2.620
000000-00-0	2746 AEA SBP CF LP	New York	NY	AEA Small Business Private Equity .....	.....	03/24/2023	3	0	6,461	0	174,954	0.301
000000-00-0	2823 COFF PARENT LLC	Austin	TX	COFF PARENT LLC .....	.....	04/01/2024	2	9,000	.....	0	.....	0.009
000000-00-0	2824 FOREST ULTIMATE HOLDINGS LLC	Chicago	IL	FOREST ULTIMATE HOLDINGS LLC .....	.....	04/30/2024	2	51,000	.....	0	.....	1.685
000000-00-0	2847 CB Notepad Co-Invest LP	New York	NY	Centerbridge Partners LP .....	.....	06/30/2024	3	11,697,576	0	0	.....	100.000
000000-00-0	2616A Stork SPV LP	Greenwich	CT	Amulet Capital Fund II GP LP .....	.....	12/20/2021	3	0	15,890	0	.....	.....
2599999. Joint Venture Interests - Other - Unaffiliated								11,757,576	1,645,134	0	329,011	XXX
000000-00-0	8999 SN balancing	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	01/01/2023 .....	.....	0	5,462	0	.....	.....
2799999. Surplus Debentures, etc - Unaffiliated								0	5,462	0	0	XXX
US3631-9W-A	7161 Galaxy XXIII CLO Ltd-GALXY 2017-23A SUBA	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	05/09/2014	3	243,770	0	0	.....	.....
US0017-6K-A	7167 AMMC CLO 16 Ltd	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	03/13/2014	3	0	2,343,160	0	.....	.....
US9291-7T-A	7177 Voya CLO 2018-2 Ltd-VOYA 2018-2A SUB	Springfield	MA	Massachusetts Mutual Life Ins Co .....	.....	03/31/2023	3	0	2,638,436	0	.....	.....
4699999. Residual Tranches or Interests with Underlying Assets Having Characteristics of Fixed Income Instruments - Unaffiliated								0	5,225,366	0	0	XXX
6099999. Total - Unaffiliated								29,922,698	18,860,395	0	140,832,005	XXX
6199999. Total - Affiliated								4,639,772	22,286,016	23,736,331	14,852,081	XXX
6299999 - Totals								34,562,470	41,146,412	23,736,331	155,684,086	XXX

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE BA - PART 3

Showing Other Long-Term Invested Assets DISPOSED, Transferred or Repaid During the Current Quarter

1	2	Location		5	6	7	8	Change in Book/Adjusted Carrying Value						15	16	17	18	19	20
		3	4					9	10	11	12	13	14						
CUSIP Identification	Name or Description	City	State	Name of Purchaser or Nature of Disposal	Date Originally Acquired	Disposal Date	Book/ Adjusted Carrying Value Less Encumbrances, Prior Year	Unrealized Valuation Increase/ (Decrease)	Current Year's (Depreciation) or (Amortization)/ Accretion	Current Year's Other Than Temporary Impairment Recognized	Capitalized Deferred Interest and Other	Total Change in Book/ Adjusted Carrying Value (9+10-11+12)	Total Foreign Exchange Change in Book/ Adjusted Carrying Value	Book/ Adjusted Carrying Value Less Encumbrances on Disposal	Consideration	Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal	Investment Income
000000-00-0	2781 FIRST EAGLE DCF A FUNDING LLC	Boston	MA	Distribution	07/06/2023	04/30/2024	0	0	0	0	0	0	0	0	206,177	0	0	0	0
000000-00-0	6117 Monarch Capital Partners III LP	New York	NY	Distribution	01/12/2015	06/18/2024	0	0	0	0	0	0	0	0	511,269	0	0	0	0
000000-00-0	6118 Yukon Capital Partners II LP	Minneapolis	MN	Distribution	07/17/2014	05/31/2024	0	0	0	0	0	0	0	0	12,060	0	0	0	0
000000-00-0	6123 NB Private Equity Credit Opportunities Fund LP	New York	NY	Distribution	06/07/2017	06/17/2024	0	0	0	0	0	0	0	0	1,594,147	0	0	0	0
000000-00-0	6124 Yukon Capital Partners III LP	Minneapolis	MN	Distribution	07/18/2017	05/31/2024	0	0	0	0	0	0	0	0	7,130	0	0	0	0
000000-00-0	6125 Monarch Capital Partners IV LP	New York	NY	Distribution	10/30/2017	04/04/2024	0	0	0	0	0	0	0	0	240,289	0	0	0	0
000000-00-0	6126 Gryphon Mezzanine Partners LP	San Francisco	CA	Distribution	11/30/2017	05/31/2024	0	0	0	0	0	0	0	0	897,491	0	0	0	0
000000-00-0	6132 Sagard Credit Partners LP	Toronto		Distribution	10/09/2018	05/29/2024	0	0	0	0	0	0	0	0	1,303,846	0	0	0	0
000000-00-0	6133 PineBridge Private Credit Feeder LP	New York	NY	Distribution	11/28/2018	05/01/2024	0	0	0	0	0	0	0	0	(1,884,474)	0	0	0	0
000000-00-0	6137 Cyprium Parallel Investors V LP	Cleveland	OH	Distribution	08/15/2019	04/29/2024	0	0	0	0	0	0	0	0	51,306	0	0	0	0
1799999. Joint Venture Interests - Fixed Income - NAIC Designation Not Assigned by the SVO - Unaffiliated								0	0	0	0	0	0	0	2,939,241	0	0	0	0
000000-00-0	2060 Gryphon Partners IV LP	San Francisco	CA	Distribution	11/25/2015	05/28/2024	0	0	0	0	0	0	0	0	416,122	0	0	0	0
000000-00-0	2242 Gryphon Partners V LP	San Francisco	CA	Distribution	08/29/2018	05/31/2024	0	0	0	0	0	0	0	0	(1,138,775)	0	0	0	0
000000-00-0	2416 Gryphon Partners VI LP	San Francisco	CA	Distribution	11/26/2021	06/26/2024	0	0	0	0	0	0	0	0	2,914	0	0	0	0
000000-00-0	2518 MidOcean Partners VI LP	New York	NY	Distribution	11/09/2021	06/07/2024	0	0	0	0	0	0	0	0	11,549	0	0	0	0
000000-00-0	2584 One Equity Partners VIII LP	New York	NY	Distribution	01/26/2022	05/14/2024	0	0	0	0	0	0	0	0	67,077	0	0	0	0
000000-00-0	2622 OceanSound Partners Fund LP	New York	NY	Distribution	12/27/2021	05/31/2024	0	0	0	0	0	0	0	0	1,498,274	0	0	0	0
000000-00-0	2633 Weatherby Parent Holdings LLC	Boston	MA	Distribution	02/07/2022	04/16/2024	0	0	0	0	0	0	0	0	31	0	0	0	0
000000-00-0	2665 AEA Growth Equity Fund LP	San Francisco	CA	Distribution	04/29/2022	06/28/2024	0	0	0	0	0	0	0	0	89,884	0	0	0	0
000000-00-0	2686 SER Capital Partners I LP	Houston	TX	Distribution	07/31/2021	05/06/2024	0	0	0	0	0	0	0	0	335	0	0	0	0
000000-00-0	2705 Energy Acquisition Vehicle LP	New York	NY	Distribution	09/22/2022	06/05/2024	0	0	0	0	0	0	0	0	271,861	0	0	0	0
000000-00-0	2755 Bertram Capital V LP	Foster City	CA	Distribution	06/09/2023	05/14/2024	0	0	0	0	0	0	0	0	31,628	0	0	0	0
000000-00-0	2756 IPCC Fund LP	Wilmington	DE	Distribution	05/25/2023	05/31/2024	0	0	0	0	0	0	0	0	4,775	0	0	0	0
000000-00-0	2802 Ara USDOF US Co Invest LP	Houston	TX	Distribution	02/16/2024	05/31/2024	0	0	0	0	0	0	0	0	270,145	0	0	0	0
000000-00-0	6009 LLA Equity Partners IV LP	Philadelphia	PA	Distribution	03/14/2014	06/13/2024	0	0	0	0	0	0	0	0	363,873	0	0	0	0
000000-00-0	6010 NB Secondary Opportunities Fund III LP																		
000000-00-0	6012 NB Strategic Co-Investment Partners III LP	New York	NY	Distribution	05/23/2013	06/24/2024	0	0	0	0	0	0	0	0	111,666	0	0	0	0
000000-00-0	6013 NB Secondary Opportunities Fund IV LP	New York	NY	Distribution	01/28/2016	04/05/2024	0	0	0	0	0	0	0	0	144,595	0	0	0	0
000000-00-0	6027 River Cities Capital Fund V LP	Davenport	IA	Distribution	04/19/2017	06/24/2024	0	0	0	0	0	0	0	0	368,379	0	0	0	0
000000-00-0	6031 Snow Phipps III LP	New York	NY	Distribution	12/31/2012	06/10/2024	0	0	0	0	0	0	0	0	117,101	0	0	0	0
000000-00-0	6032 Snow Phipps LP	New York	NY	Distribution	06/08/2016	04/08/2024	0	0	0	0	0	0	0	0	154,449	0	0	0	0
000000-00-0	6033 Solamere Capital Fund II LP	Boston	MA	Distribution	02/06/2007	06/03/2024	0	0	0	0	0	0	0	0	438,242	0	0	0	0
000000-00-0	6034 Solamere Capital Fund II-A LP	Boston	MA	Distribution	08/19/2013	06/25/2024	0	0	0	0	0	0	0	0	212,198	0	0	0	0
000000-00-0	6040 Vida Longevity Fund LP	Cincinnati	OH	Distribution	08/19/2013	06/25/2024	0	0	0	0	0	0	0	0	203,639	0	0	0	0
000000-00-0	6048 Gryphon Partners V LP	Austin	TX	Distribution	04/01/2015	05/15/2024	0	0	0	0	0	0	0	0	104,130	0	0	0	0
000000-00-0	6049 A&M Capital Opportunities Fund LP	San Francisco	CA	Distribution	08/29/2018	05/01/2024	0	0	0	0	0	0	0	0	1,138,775	0	0	0	0
000000-00-0	6063 Rivercrest Capital Partners LP	Greenwich	CT	Distribution	10/01/2021	06/20/2024	0	0	0	0	0	0	0	0	6,659	0	0	0	0
000000-00-0	6067 NB Dyal IV US Investors LP	Fort Worth	TX	Distribution	04/02/2018	06/28/2024	0	0	0	0	0	0	0	0	208,324	0	0	0	0
000000-00-0	6068 Trilantic Capital Partners VI LP	New York	NY	Distribution	06/11/2018	06/30/2024	0	0	0	0	0	0	0	0	272,668	0	0	0	0
000000-00-0	6073 Roark Capital Partners Fund V LP	New York	NY	Distribution	07/25/2018	05/31/2024	0	0	0	0	0	0	0	0	58,243	0	0	0	0
000000-00-0	6076 Blackstone Tactical Opportunities Fund III LP	Atlanta	GA	Distribution	11/01/2018	05/24/2024	0	0	0	0	0	0	0	0	91,397	0	0	0	0
000000-00-0	6086 Gallant Capital Partners I LP	New York	NY	Distribution	02/08/2019	06/25/2024	0	0	0	0	0	0	0	0	143,799	0	0	0	0
000000-00-0	6091 CCA Life Settlements Fund II LP	Los Angeles	CA	Distribution	05/29/2020	06/05/2024	0	0	0	0	0	0	0	0	135,323	0	0	0	0
000000-00-0	6093 Foresite Capital Fund V LP	Dublin	CA	Distribution	12/16/2019	04/30/2024	0	0	0	0	0	0	0	0	99,390	0	0	0	0
000000-00-0	6098 Dyal V US Investors LP	LARKSPUR	CA	Distribution	06/08/2020	04/29/2024	0	0	0	0	0	0	0	0	22,465	0	0	0	0
000000-00-0	6099 NB Strategic Capital LP	New York	NY	Distribution	10/01/2021	06/14/2024	0	0	0	0	0	0	0	0	44,495	0	0	0	0
000000-00-0	6104 Vivo Capital Fund IX LP	New York	NY	Distribution	03/05/2020	06/30/2024	0	0	0	0	0	0	0	0	390,524	0	0	0	0
000000-00-0	6104 GreyLion Capital II LP	Palo Alto	CA	Distribution	09/09/2019	05/20/2024	0	0	0	0	0	0	0	0	129,313	0	0	0	0
000000-00-0	6104 GreyLion Capital II LP	New York	NY	Distribution	02/28/2018	06/30/2024	0	0	0	0	0	0	0	0	1,889,612	0	0	0	0
1999999. Joint Venture Interests - Common Stock - Unaffiliated								0	0	0	0	0	0	0	8,375,081	0	0	0	0
000000-00-0	2792 Hayfin Maritime Yield Fund LP	George Town		Distribution	10/25/2023	06/30/2024	0	0	0	0	0	0	0	0	182,205	0	0	0	0

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE BA - PART 3

Showing Other Long-Term Invested Assets DISPOSED, Transferred or Repaid During the Current Quarter

1	2	Location		5	6	7	8	Change in Book/Adjusted Carrying Value						15	16	17	18	19	20
		3	4					9	10	11	12	13	14						
CUSIP Identification	Name or Description	City	State	Name of Purchaser or Nature of Disposal	Date Originally Acquired	Disposal Date	Book/ Adjusted Carrying Value Less Encumbrances, Prior Year	Unrealized Valuation Increase/ (Decrease)	Current Year's (Depreciation) or (Amortization)/ Accretion	Current Year's Other Than Temporary Impairment Recognized	Capitalized Deferred Interest and Other	Total Change in Book/ Adjusted Carrying Value (9+10-11+12)	Total Foreign Exchange Change in Book/ Adjusted Carrying Value	Book/ Adjusted Carrying Value Less Encumbrances on Disposal	Consideration	Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal	Investment Income
000000-00-0	6107 Lubert-Adler Real Estate Fund VII-B LP	Philadelphia	PA.....	Distribution	04/07/2017	05/24/2024	0	0	0	0	0	0	0	0	263,049	0	0	0	0
000000-00-0	6108 NB Real Estate Secondary Opportunities Fund LP	New York	NY.....	Distribution	12/05/2018	04/19/2024	0	0	0	0	0	0	0	0	1,454,326	0	0	0	0
000000-00-0	6112 Hillpointe Workforce Housing Partnership II LP	WINTER PARK	FL.....	Distribution	11/03/2020	05/20/2024	0	0	0	0	0	0	0	0	230,653	0	0	0	0
2199999. Joint Venture Interests - Real Estate - Unaffiliated							0	0	0	0	0	0	0	0	2,130,233	0	0	0	0
000000-00-0	2530 MM Horizon Savannah Member II LLC	Springfield	MA.....	Distribution	10/25/2021	06/25/2024	0	0	0	0	0	0	0	0	2,231,566	0	0	0	0
000000-00-0	2530 MM Horizon Savannah Member LLC	Springfield	MA.....	Distribution	10/25/2021	06/25/2024	0	0	0	0	0	0	0	0	188,133	0	0	0	0
2299999. Joint Venture Interests - Real Estate - Affiliated							0	0	0	0	0	0	0	0	2,419,700	0	0	0	0
000000-00-0	2461 Barings Real Estate Debt Income Fund LP	Hartford	CT.....	Distribution	03/24/2021	06/30/2024	0	0	0	0	0	0	0	0	1,263,025	0	0	0	0
000000-00-0	2461 Barings Real Estate Debt Income Fund LP	Hartford	CT.....	Distribution	03/24/2021	06/30/2024	0	0	0	0	0	0	0	0	3,883,298	0	0	0	0
2499999. Joint Venture Interests - Mortgage Loans - Affiliated							0	0	0	0	0	0	0	0	5,146,324	0	0	0	0
000000-00-0	2616 Stork SPV LP	Greenwich	CT.....	Distribution	12/20/2021	04/19/2024	0	0	0	0	0	0	0	0	99,125	0	0	0	0
000000-00-0	2673 KSL Capital Partners CV I LP	Denver	CO.....	Distribution	05/25/2022	05/21/2024	0	0	0	0	0	0	0	0	73,602	0	0	0	0
000000-00-0	2698 Exos Collateralized SPAC Holdings Fund LP	New York	NY.....	Distribution	11/14/2022	06/27/2024	0	0	0	0	0	0	0	0	1,371,429	0	0	0	0
000000-00-0	2707 TSS Co-Invest Holdings LP	Beverly Hills	CA.....	Distribution	09/09/2022	06/30/2024	0	0	0	0	0	0	0	0	7,614	0	0	0	0
000000-00-0	2765 Energy Acquisition Vehicle II LP	Wilmington	DE.....	Distribution	06/01/2023	06/30/2024	0	0	0	0	0	0	0	0	948,872	0	0	0	0
000000-00-0	2782 Q-Energy V FCR	Madrid		Distribution	08/18/2023	05/09/2024	0	0	0	0	0	0	0	0	47,750	(2,212)	0	(2,212)	0
2599999. Joint Venture Interests - Other - Unaffiliated							0	0	0	0	0	0	0	0	2,548,392	(2,212)	0	(2,212)	0
US0561-6M-A	7111 BABSON CLO LTD 2015-II SUB NT			Distribution	05/09/2014	04/30/2024	0	0	0	0	0	0	0	0	219,626	0	0	0	0
	7135 AMMC CLO XI Ltd-AMMC 2012-11A			Distribution	05/09/2014	06/30/2024	0	0	0	0	0	0	0	0	1,939,020	0	0	0	0
US2682-9D-A	7146 Man GLG US CLO-GLGU 2018-1A SUB			Distribution	05/09/2014	05/31/2024	0	0	0	0	0	0	0	0	916,858	0	0	0	0
US5595-3P-A	7147 Magnetite XVI Ltd-MAGNE 2015-16A SUB			Distribution	05/09/2014	04/30/2024	0	0	0	0	0	0	0	0	(700,674)	(350,337)	0	(350,337)	0
	7159 Oaktree CLO 2015-1 Ltd-OAKCL 2015-1A SUB														0	0	0	0	0
US6738-9Y-A				Distribution	05/09/2014	02/28/2024	0	0	0	0	0	0	0	0	0	0	0	0	0
46655H-AK-9	7164 JCP Direct Lending CLO 2022 LLC			Distribution	03/13/2014	05/31/2024	0	0	0	0	0	0	0	0	761,544	0	0	0	0
US0017-6K-A	7167 AMMC CLO 16 Ltd			Distribution	03/13/2014	04/30/2024	0	0	0	0	0	0	0	0	29,006	0	0	0	0
000000-00-0	7170 RT balancing	Springfield	MA.....	Distribution	01/01/2023	06/30/2024	0	0	0	0	0	0	0	0	185,721	0	0	0	0
00834H-10-4	7171 Affirm Asset Securitizat-2022-X1 CERT			Distribution	03/31/2023	06/30/2024	0	0	0	0	0	0	0	0	150,958	0	0	0	0
	7206 Velocity Commercial Capi-VCC 2022-2 M6														0	0	0	0	0
92259U-AG-3			MA.....	Distribution	02/28/2024	05/31/2024	0	0	0	0	0	0	0	0	134,746	0	0	0	0
4699999. Residual Tranches or Interests with Underlying Assets Having Characteristics of Fixed Income Instruments - Unaffiliated							0	0	0	0	0	0	0	0	3,636,805	(350,337)	0	(350,337)	0
6099999. Total - Unaffiliated							0	0	0	0	0	0	0	0	19,629,752	(352,549)	0	(352,549)	0
6199999. Total - Affiliated							0	0	0	0	0	0	0	0	7,566,023	0	0	0	0
6299999 - Totals							0	0	0	0	0	0	0	0	27,195,775	(352,549)	0	(352,549)	0

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
30767E-AE-9	Farm Credit Bank of Texa-FARMCB 7 3/4 PE		05/21/2024	VARIOUS		15,100,625	15,000,000	0	2.B FE
575898-CS-8	Massachusetts Port Autho-REVENUE BONDS		05/08/2024	STIFEL NICOLAUS		2,083,510	2,015,000	44,781	1.F FE
0909999999 Subtotal - Bonds - U.S. Special Revenues						17,184,135	17,015,000	44,781	XXX
008513-AA-1	Agree LP-SENIOR UNSECURED		04/23/2024	SEAPORT GROUP		4,241,750	5,000,000	9,667	2.B FE
009158-BJ-4	Air Products and Chemica-SENIOR UNSECURE		05/07/2024	BNP PARIBAS		9,880,200	10,000,000	120,069	1.F FE
02666T-AB-3	American Homes 4 Rent LP-SENIOR UNSECURE		04/23/2024	GOLDMAN		6,375,233	6,593,000	62,817	2.B FE
03027X-BW-9	American Tower Corp-SENIOR UNSECURED		04/09/2024	GOLDMAN		19,029,032	20,900,000	61,133	2.C FE
036752-AR-4	Anthem Inc-SENIOR UNSECURED		06/25/2024	WELLS FARGO		3,027,985	3,225,000	13,572	2.A FE
04020R-AA-6	Ares Direct Lending CLO -ARESDL 2024-1A		04/26/2024	BNP PARIBAS		15,000,000	15,000,000	0	1.A Z
04685A-3Q-2	ATH 5.583 01/09/29		04/09/2024	BOFAMLSEC		8,020,080	8,000,000	114,141	1.E FE
049560-AT-2	Atmos Energy Corp-SENIOR UNSECURED		05/07/2024	GOLDMAN		1,842,761	2,285,000	10,854	1.G FE
053332-AW-2	AutoZone Inc-SENIOR UNSECURED		04/23/2024	U. S. BANCORP		10,236,050	11,000,000	8,021	2.B FE
05642*-AA-1	BWIC TERMINALS INC Senior Secured Notes A		06/17/2024	DIRECT		21,875,000	21,875,000	0	2.B Z
07336P-AA-2	Bayview Opportunity Mast-BVCLN 2024-EDU1		04/23/2024	BOFAMLSEC		13,500,000	13,500,000	0	1.A FE
07336P-AC-8	Bayview Opportunity Mast-BVCLN 2024-EDU1		04/23/2024	BOFAMLSEC		2,500,000	2,500,000	0	1.F FE
08661U-AA-4	Beth Israel Lahey Health-SENIOR UNSECURE		05/08/2024	SUNTRUST CAPITAL MAR		1,376,117	1,564,000	12,442	1.G FE
095828-AA-3	Blue Owl RE Net Lease Pr Senior Secured		04/24/2024	DIRECT		30,000,000	30,000,000	0	2.A PL
101137-BA-4	Boston Scientific Corp-SENIOR UNSECURED		04/09/2024	TORONTO DOMINION SEC		4,377,150	5,000,000	47,847	2.A FE
10334*-AT-9	BOYD WATTERSON GSA FUND Senior Notes		05/23/2024	DIRECT		22,500,000	22,500,000	0	2.B Z
11135F-AQ-4	Broadcom Inc-SENIOR UNSECURED		04/24/2024	BOFAMLSEC		4,935,370	5,325,000	98,831	2.C FE
11135F-BT-7	Broadcom Inc-SENIOR UNSECURED		04/23/2024	BOFAMLSEC		5,699,117	6,270,000	7,228	2.C FE
12510H-AM-2	CARS-DB5 LP-CAUTO 2021-1A A3		05/01/2024	CANTOR		654,468	733,234	704	1.E FE
12543D-BN-9	CHS/Community Health Sys-FIRST LIEN		05/21/2024	U B S SECURITIES		3,303,780	3,239,000	159,487	4.C FE
12582B-AS-3	CNH Industrial Capital L-SENIOR UNSECURE		04/23/2024	BOFAMLSEC		15,018,894	15,206,000	57,804	2.A FE
126650-EB-2	CVS 5.4 06/01/29		05/07/2024	BOFAMLSEC		14,985,450	15,000,000	0	2.B FE
14310Q-AN-8	Carlyle Direct Lending C-CGFM 2015-1A A1		05/30/2024	CITIGROUP GLOBAL MAR		50,000,000	50,000,000	0	1.A Z
14310Q-AS-7	Carlyle Direct Lending C-CGFM 2015-1A A2		05/30/2024	CITIGROUP GLOBAL MAR		15,000,000	15,000,000	0	1.D Z
14576A-AC-6	Cars Net Lease Mortgage -CARM 2020-1A A3		05/07/2024	BARCLAYS CAPITAL INC		570,456	639,167	1,321	1.F FE
14913U-AJ-9	Caterpillar Financial Se-SENIOR UNSECURE		04/09/2024	TORONTO DOMINION SEC		5,001,150	5,000,000	29,639	1.F FE
16144C-AG-1	Chase Auto Owner Trust-CHAOT 2024-2A D		04/18/2024	JP MORGAN SECURITIES		7,259,499	7,260,000	0	2.C FE
16308N-AA-2	Cheever Escrow Issuer LL-SECURED		06/06/2024	VARIOUS		2,030,000	2,000,000	26,125	4.C FE
17136M-AA-0	Church & Dwight Co Inc-SENIOR UNSECURED		04/09/2024	WELLS FARGO		6,607,760	8,000,000	59,289	2.A FE
20268A-AB-8	Commonbond Student Loan -CBSLT 2021-BGS		05/20/2024	BARCLAYS CAPITAL INC		5,830	7,067	3	1.G FE
20268J-AK-9	CommonSpirit Health-SECURED		04/23/2024	SOUTHWEST SEC.		18,798,371	18,466,000	542,029	1.G FE
209111-FM-0	ED 3 1/8 11/15/27		04/24/2024	BOFAMLSEC		9,115,628	9,765,000	136,473	1.G FE
22160K-AP-0	Costco Wholesale Corp-SENIOR UNSECURED		04/09/2024	TORONTO DOMINION SEC		4,182,300	5,000,000	38,000	1.E FE
22228*-AF-3	The Corbin District Owner LLC 2023-1 SU		06/26/2024	DIRECT		76,973	76,973	0	1.F Z
23110A-AB-2	Cumulus Media New Holdin-FIRST LIEN		05/02/2024	EXCHANGE OFFER		2,500,412	2,490,000	56,492	5.A FE
25179M-BF-9	DVN 4 1/2 01/15/30		04/09/2024	BARCLAYS CAPITAL INC		3,391,063	3,537,000	38,023	2.B FE
25461L-AA-0	DTV 5 7/8 08/15/27-SECURED		05/15/2024	VARIOUS		5,400,935	5,808,000	70,833	3.B FE
255123-A*-2	Diversified ABS Phase VI Senior Secured		05/29/2024	BARCLAYS CAPITAL INC		22,338,000	22,338,000	0	1.F Z
000000-00-0	Diversified ABS Phase VI Senior Secured		05/29/2024	BARCLAYS CAPITAL INC		5,172,000	5,172,000	0	2.A Z
25755T-AN-0	Domino's Pizza Master Is-DPABS 2021-1A A		04/18/2024	JP MORGAN SECURITIES		2,546,772	2,917,500	18,769	2.A FE
26844Q-AA-5	EFMT 2023-1-EFMT 2023-1 A1		04/16/2024	VARIOUS		(24,483)	(24,778)	(24)	1.A FE
278062-AD-6	EATON CORP-SR UNSECURED		04/09/2024	U. S. BANCORP		1,387,065	1,479,000	26,129	1.G FE
29273V-AT-7	Energy Transfer LP-SENIOR UNSECURED		04/23/2024	BOFAMLSEC		9,945,078	9,611,000	246,042	2.B FE
293658-AG-1	Entergy New Orleans LLC First Mortgage B		05/23/2024	BARCLAYS CAPITAL INC		25,000,000	25,000,000	0	2.B Z
302704-AB-7	FLYWHHEEL ENERGY ASSET IS Class B Note		06/24/2024	DIRECT		10,000,000	10,000,000	0	1.F Z

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
31740J-AA-6	FINANCE OF AMERICA STRUC-FASST 2023-RMF1		..05/25/2024	PAYUP		16,764	16,764	0	1.A FE
34417R-AA-4	FOCUS Brands Funding LLC-FOCUS 2017-1A A		..05/30/2024	IN-KIND TRANSFER		3,820,000	3,820,000	24,556	2.B FE
34535Q-AC-9	Ford Credit Auto Owner T-FORDR 2023-1 C		..05/02/2024	BOFAMILSEC		2,967,773	3,000,000	9,785	1.F FE
372460-AA-3	Genuine Parts Co-SENIOR UNSECURED		..04/09/2024	U. S. BANCORP		6,467,360	8,000,000	66,667	2.B FE
373298-BR-8	GEORGIA-PACIFIC LLC-SENIOR UNSECURED		..04/09/2024	JP MORGAN SECURITIES		17,027,550	15,000,000	471,458	1.G FE
417558-AB-9	Harvest Midstream I LP-SENIOR UNSECURED		..06/05/2024	WELLS FARGO		3,045,000	3,000,000	18,750	3.C FE
43283Y-AB-9	Hilton Grand Vacations T-HGVT 2024-1B B		..04/15/2024	BOFAMILSEC		1,899,648	1,900,000	0	1.F FE
43324@-AH-0	HINES GLOBAL REAL ESTATE Senior Note		..06/20/2024	DIRECT		15,750,000	15,750,000	0	1.F PL
437076-CZ-3	Home Depot Inc/The-SENIOR UNSECURED		..06/25/2024	MORGAN		10,013,200	10,000,000	1,431	1.F FE
44961@-AA-1	iGPS Logistics LLC Senior Secured Note S		..04/18/2024	JEFFGROUPLLC		6,551,700	6,551,700	0	2.B Z
44961@-AB-9	iGPS Logistics LLC Senior Secured Note S		..04/18/2024	JEFFGROUPLLC		12,718,750	12,718,750	0	2.B Z
451102-CG-0	Icahn Enterprises LP / I-SENIOR UNSECURE		..06/26/2024	VARIOUS		2,711,938	2,749,000	4,934	3.C FE
45687V-AE-6	Ingersoll Rand Inc-SENIOR UNSECURED		..05/08/2024	VARIOUS		21,871,678	21,880,000	0	2.B FE
45866F-AJ-3	Intercontinental Exchang-SENIOR UNSECURED		..05/07/2024	JP MORGAN SECURITIES		4,781,200	5,000,000	25,000	1.G FE
461070-AQ-7	Interstate Power & Light-SENIOR UNSECURE		..04/09/2024	DEUTSCHE BANK SECURI		4,668,950	5,000,000	5,000	2.A FE
46188B-AD-4	Invitation Homes Operati-SENIOR UNSECURE		..04/23/2024	WELLS FARGO		2,234,300	2,500,000	2,882	2.B FE
46630W-AL-4	JP Morgan Mortgage Trust-JPMIT 2007-S2 1		..04/24/2024	PAYUP		3,191	3,191	0	4.C FM
47587#-AA-6	JEN HoldCo 23 LLC Senior Secured Note		..05/14/2024	DIRECT		1,245,370	1,245,370	0	2.B PL
47587*-AA-0	JEN HoldCo 24 LLC Senior Secured Notes		..06/14/2024	DIRECT		7,830,000	7,830,000	0	2.B PL
49271V-AT-7	Keurig Dr Pepper Inc-SENIOR UNSECURED		..04/09/2024	TORONTO DOMINION SEC		4,986,050	5,000,000	23,847	2.B FE
548661-EP-8	Lowe's Cos Inc-SENIOR UNSECURED		..06/25/2024	BOFAMILSEC		4,962,250	5,000,000	56,667	2.A FE
55336V-AR-1	MPLX LP-SENIOR UNSECURED		..04/23/2024	JP MORGAN SECURITIES		7,840,142	8,262,000	36,720	2.B FE
55400W-AA-7	MVII 2023-2 LLC-MVIIOT 2023-2A A		..05/07/2024	BOFAMILSEC		7,066,035	6,941,309	22,640	1.A FE
571676-AB-1	MARS 3.2 04/01/30		..05/07/2024	U. S. BANCORP		1,878,028	2,070,000	6,992	1.E FE
571676-AU-9	Mars Inc-SENIOR UNSECURED		..04/09/2024	DEUTSCHE BANK SECURI		4,912,400	5,000,000	110,438	1.E FE
57763R-AD-9	Mauser Packaging Solutio-SECURED		..04/16/2024	EXCHANGE OFFER		4,882,962	4,949,000	66,038	4.B FE
67080L-AC-9	Nuveen LLC-SENIOR UNSECURED		..04/23/2024	VARIOUS		20,042,780	20,000,000	19,425	2.A FE
67119F-AA-1	OBX 2024-NQM7 Trust-OBX 2024-NQM7 A1		..05/06/2024	BARCLAYS CAPITAL INC		4,999,980	5,000,000	37,285	1.A FE
67119F-AB-9	OBX 2024-NQM7 Trust-OBX 2024-NQM7 A2		..05/06/2024	BARCLAYS CAPITAL INC		5,000,000	5,000,000	38,497	1.C FE
70338C-10-9	Patrons' Legacy-PATRLN 6.673 12/04/23		..05/30/2024	DIRECT		1,103,347	1,103,347	5,317	1.G FE
709599-BU-7	Penske Truck Leasing Co -SENIOR UNSECURE		..06/25/2024	U. S. BANCORP		2,508,975	2,500,000	12,778	2.B FE
718547-AK-8	Phillips 66 Co-SENIOR UNSECURED		..05/08/2024	JP MORGAN SECURITIES		10,064,314	11,198,000	142,075	2.A FE
72303#-AA-7	Pinebridge Private Credi Term Loan FAC		..05/30/2024	DIRECT		1,031,553	1,031,553	0	1.E PL
744573-AV-8	Public Service Enterpris-SENIOR UNSECURE		..04/24/2024	CITIGROUP GLOBAL MAR		10,242,612	10,100,000	264,241	2.B FE
758750-AM-5	Regal Rexnord Corp-SENIOR UNSECURED		..05/02/2024	EXCHANGE OFFER		25,253,556	25,000,000	71,424	2.C FE
76209P-AD-5	RGA Global Funding-SECURED		..04/23/2024	SUNTRUST CAPITAL MAR		5,927,940	6,000,000	95,333	1.E FE
776743-AL-0	Roper Technologies Inc-SENIOR UNSECURED		..04/23/2024	VARIOUS		11,035,460	14,000,000	47,639	2.A FE
78403D-AT-7	SBA Tower Trust-SBATOW 1.631 11/15/26		..05/07/2024	BAIRD		6,323,800	7,000,000	7,611	1.F FE
784710-AA-3	SSM Health Care Corp-SENIOR UNSECURED		..05/21/2024	JP MORGAN SECURITIES		2,890,500	3,000,000	54,796	1.E FE
785592-AX-4	Sabine Pass Liquefaction-FIRST LIEN		..04/09/2024	BOFAMILSEC		4,785,800	5,000,000	91,250	2.A FE
78573N-AH-5	Sabre GLBL Inc-SECURED		..05/31/2024	CITIGROUP GLOBAL MAR		389,000	400,000	21,000	4.C FE
78573N-AJ-1	Sabre GLBL Inc-FIRST LIEN		..06/04/2024	U B S SECURITIES		553,500	600,000	13,513	4.C FE
79582M-AA-9	Saluda Grade Alternative-GRADE 2024-F1G5		..04/05/2024	NOMURA SECURITIES IN		9,999,986	10,000,000	19,113	1.A FE
806851-AK-7	Schlumberger Holdings Co-SENIOR UNSECURE		..04/23/2024	SUNTRUST CAPITAL MAR		8,262,996	8,685,000	148,658	2.A FE
81743C-AE-5	Sequoia Mortgage Trust 2-SEMT 2024-5 A5		..05/07/2024	BOFAMILSEC		4,971,873	5,000,000	10,833	1.A FE
82340*-AA-5	Shepherds Flat Funding T Trust A-1-A Cer		..05/02/2024	DIRECT		1,941,097	1,900,000	0	2.C FE
82667C-AC-9	Signal Rail I LLC-SRL 2024-1A A		..05/13/2024	WELLS FARGO		8,995,275	9,000,000	0	1.C FE
83206E-AA-5	SMB Private Education Lo-SMB 2024-C A1A		..05/07/2024	BOFAMILSEC		9,998,200	10,000,000	0	1.A FE

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
83206N-AC-1	SMB Private Education Lo-SMB 2022-B B		04/17/2024	GOLDMAN		1,418,555	1,500,000	758	1.D FE
85253#-AN-1	STAG Industrial Operatin Gtd Senior Note		05/28/2024	BANK OF AMERICA CORP		8,000,000	8,000,000	0	2.B Z
855244-AK-5	Starbucks Corp-SENIOR UNSECURED		06/25/2024	BARCLAYS CAPITAL INC		4,751,850	5,000,000	3,743	2.A FE
86212X-AM-2	Store Master Funding I-V-STR 2024-1A A2		04/05/2024	CITIGROUP GLOBAL MAR		9,999,503	10,000,000	0	1.A FE
863667-BC-4	Stryker Corp-SENIOR UNSECURED		05/07/2024	U. S. BANCORP		5,755,804	5,800,000	117,990	2.A FE
86746F-AA-2	Sunnova Hestia II Issuer-SNVA 2024-GRID1		05/22/2024	SMBC NIKKO SECURITIE		9,999,644	10,000,000	0	1.A FE
87251F-AD-1	TOW DIRECT LENDING STRUCTURED SOLUTIONS		05/23/2024	DIRECT		658,993	658,993	0	2.B FE
872540-AW-9	TJX Cos Inc/The-SENIOR UNSECURED		04/09/2024	GOLDMAN		6,600,918	8,200,000	53,209	1.F FE
874054-AG-4	Take-Two Interactive Sof-SENIOR UNSECURE		04/23/2024	TORONTO DOMINION SEC		5,020,318	5,273,000	5,961	2.B FE
87612E-BP-0	Target Corp-SENIOR UNSECURED		04/23/2024	VARIOUS		12,134,130	12,575,000	50,625	1.F FE
88632Q-AE-3	Cloud Software Group Inc-SECURED		05/29/2024	VARIOUS		7,437,258	7,830,000	72,638	4.B FE
89236T-MD-4	Toyota Motor Credit Corp-SENIOR UNSECURE		06/25/2024	VARIOUS		7,012,600	7,000,000	40,444	1.E FE
89680H-AE-2	Triton Container Finance-TCF 2021-1A A		05/10/2024	mitsubishi ufj sec i		11,776,484	13,459,600	16,007	1.F FE
89683L-AA-8	TRP - TRIP Rail Master F-TRP 2021-2 A		05/08/2024	MIZUHO SECURITIES		3,150,435	3,485,657	4,788	1.F FE
902494-BJ-1	Tyson Foods Inc-SENIOR UNSECURED		06/25/2024	JP MORGAN SECURITIES		2,581,656	2,643,000	33,772	2.B FE
90352W-AD-6	ITE Rail Fund Levered LP-SERIES 21-1A CL		04/03/2024	PAYUP		(50,665)	(50,665)	0	1.F FE
000000-00-0	United Power, Inc. First Mortgage Bond S		04/25/2024	DIRECT		7,894,750	7,894,750	0	1.F Z
91135#-AB-1	United Power, Inc. First Mortgage Bonds		04/25/2024	DIRECT		4,500,000	4,500,000	0	1.F FE
92343V-DD-3	Verizon Communications I-SENIOR UNSECURE		06/25/2024	MORGAN		6,142,833	6,469,000	61,792	2.A FE
927804-FZ-2	Virginia Electric & Powe-SENIOR UNSECURE		04/23/2024	VARIOUS		6,661,607	7,033,000	17,817	2.A FE
92839H-AA-4	Vista Point Securitizati-VSTA 2024-CES1		05/10/2024	PIPERJAFFRAY		7,899,919	7,900,000	62,995	1.A FE
98138H-AH-4	Workday Inc-SENIOR UNSECURED		04/09/2024	JP MORGAN SECURITIES		8,672,409	9,256,000	9,513	2.B FE
BGS2GP-MS-2	FLYINWHEEL ENERGY ASSET IS Class A Note		06/24/2024	DIRECT		40,000,000	40,000,000	0	2.B Z
G6369#-AB-7	NSG UK Enterprises Limit Senior Note Ser		04/17/2024	BOFAMLSEC		26,562,500	26,562,513	0	2.B Z
T3420#-AE-1	CRIF SpA Senior Unsecured Notes		05/07/2024	BNP PARIBAS		26,935,000	26,935,011	0	2.B Z
071734-AQ-0	Bausch Health Cos Inc-FIRST LIEN	A	06/18/2024	DLB ACCOUNTING ONLY		(1,964,829)	(2,451,000)	0	5.A FE
071734-AR-8	Bausch Health Cos Inc-BHCON 14 10/15/30	A	06/18/2024	DLB ACCOUNTING ONLY		(392,806)	(490,000)	0	5.C FE
68251P-AA-5	1375209 BC Ltd-FIRST LIEN	A	06/18/2024	VARIOUS		(1,104,665)	(1,378,000)	0	5.B
00176B-AM-5	AMMC CLO XIII Ltd-AMMC 2013-13A B3LR	D	04/24/2024	PAYUP		6,627	6,627	0	6. FE
03332Q-AA-3	Anchorage Capital CLO Lt-ANCHC 2024-29A	D	04/09/2024	CIBC OPPENHEIMER		15,000,000	15,000,000	0	1.A Z
04020T-AE-4	Ares Loan Funding VI Ltd-ARES 2024-ALF6A	D	05/24/2024	MORGAN		10,000,000	10,000,000	0	1.D Z
05876N-AA-7	Ballyrock CLO 26 Ltd-BALLY 2024-26A A1A	D	04/29/2024	MORGAN		12,950,000	12,950,000	0	1.A Z
06761V-AQ-0	Barings Clo Ltd 2019-IV-BABSN 2019-4A AR	D	05/13/2024	JP MORGAN SECURITIES		5,750,000	5,750,000	39,597	1.A FE
06761V-AS-6	Barings Clo Ltd 2019-IV-BABSN 2019-4A BR	D	05/13/2024	JP MORGAN SECURITIES		10,000,000	10,000,000	67,648	1.C FE
06761V-AU-1	Barings Clo Ltd 2019-IV-BABSN 2019-4A CR	D	05/13/2024	JP MORGAN SECURITIES		1,000,000	1,000,000	8,856	1.F FE
067936-AA-2	BABSN 2024-2A A1-BABSN 2024-2A A1	D	05/31/2024	BARCLAYS CAPITAL INC		15,000,000	15,000,000	0	1.A Z
067936-AE-4	BABSN 2024-2A B-BABSN 2024-2A B	D	05/31/2024	BARCLAYS CAPITAL INC		10,000,000	10,000,000	0	1.D Z
067936-AG-9	BABSN 2024-2A C-BABSN 2024-2A C	D	05/31/2024	BARCLAYS CAPITAL INC		5,000,000	5,000,000	0	1.F Z
08182Y-AA-6	Benefit Street Partners -BSP 2024-35A A	D	04/25/2024	JP MORGAN SECURITIES		16,000,000	16,000,000	0	1.A Z
08182Y-AC-2	Benefit Street Partners -BSP 2024-35A B	D	04/25/2024	JP MORGAN SECURITIES		10,000,000	10,000,000	0	1.D Z
12478C-AQ-4	CBAM 2018-8 Ltd/KY-CBAM 2018-8A A1R	D	05/10/2024	MORGAN		18,000,000	18,000,000	0	1.A FE
12478C-AU-5	CBAM 2018-8 Ltd/KY-CBAM 2018-8A B1R	D	05/10/2024	MORGAN		7,750,000	7,750,000	0	1.C FE
12555X-AN-1	CIFC Funding 2019-VI Ltd-CIFC 2019-6A A1	D	05/22/2024	JP MORGAN SECURITIES		10,000,000	10,000,000	0	1.A Z
12563E-AN-3	CIFC Funding 2021-I Ltd-CIFC 2021-1A AR	D	05/31/2024	BOFAMLSEC		12,000,000	12,000,000	0	1.A Z
12661P-AC-3	CSL Finance Plc-SENIOR UNSECURED	D	04/09/2024	DEUTSCHE BANK SECURI		4,720,550	5,000,000	96,806	1.G FE
13887A-AE-8	Canyon CLO 2023-2 Ltd-CANYC 2023-2A B	D	04/03/2024	DEUTSCHE BANK SECURI		5,000,000	5,000,000	0	1.C FE
14074E-AE-1	Captree Park CLO Ltd-CPTPK 2024-1A B1	D	04/26/2024	CITIGROUP GLOBAL MAR		7,300,000	7,300,000	0	1.C FE
14115D-AA-2	Carbon Revolution Ltd-SECURED	D	05/23/2024	VARIOUS		19,500	20,000	61	1.E PL
14987V-AQ-2	CBAM 2019-9 Ltd-CBAM 2019-9A B1R	D	04/08/2024	MORGAN		10,000,000	10,000,000	0	1.C FE
25243Y-BE-8	Diageo Capital PLC-SENIOR UNSECURED	D	04/09/2024	CITIGROUP GLOBAL MAR		8,117,500	10,000,000	95,625	1.G FE
25255W-AA-6	Diameter Capital CLO 7 L-DCLC 2024-7A A1	D	05/21/2024	MORGAN		15,000,000	15,000,000	0	1.A Z
25255W-AA-8	Diameter Capital CLO 7 L-DCLC 2024-7A A2	D	05/21/2024	MORGAN		10,000,000	10,000,000	0	1.D Z

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
289913--AC-9	Logan CLO I Ltd-LOGN1 2021-1A AR1	D	04/24/2024	RBC CAPITAL MARKETS		10,000,000	10,000,000	0	1.A Z
29002G--AL-5	Elmwood CLO IV Ltd-ELMW4 2020-1A AR	D	05/06/2024	BNP PARIBAS		15,000,000	15,000,000	0	1.A FE
29244P--AE-9	Empower CLO 2024-2 Ltd-EMPIR 2024-2A B	D	05/24/2024	MIZUHO SECURITIES		10,000,000	10,000,000	0	1.D Z
37147X--AC-7	Generate CLO 15 Ltd-GNRT 2024-15A B	D	04/03/2024	DEUTSCHE BANK		9,500,000	9,500,000	0	1.C FE
37149Y--AG-4	Generate CLO 16 Ltd-GNRT 2024-16A B	D	05/17/2024	BOFAMLSEC		10,000,000	10,000,000	0	1.C FE
38172U--AE-5	Golub Capital Partners C-GOCAP 2018-38A	D	06/07/2024	BNP PARIBAS		20,000,000	20,000,000	0	1.C FE
38190B--AA-3	Golub Capital Partners C-GOBSL 2024-74A	D	05/20/2024	MITSUBISHI UFJ SEC I		11,250,000	11,250,000	0	1.A FE
38190B--AC-9	Golub Capital Partners C-GOBSL 2024-74A	D	05/20/2024	MITSUBISHI UFJ SEC I		6,500,000	6,500,000	0	1.D Z
39843P--ZZ-8	GRIFOLS SA 1st Lien Secured	B	05/15/2024	DIRECT		10,708,920	10,872,000	38,505	4.B Z
46148H--AC-2	Invesco US CLO 2024-3 Lt-INVCO 2024-3A B	D	05/02/2024	BOFAMLSEC		3,800,000	3,800,000	0	1.C FE
46656T--AD-8	JCP Direct Lending CLO 2-JCPDL 2023-1I A	D	06/11/2024	VARIOUS		6,314,948	6,314,948	(44,214)	1.A FE
46656T--AK-2	JCP Direct Lending CLO 2-JCPDL 2023-1I B	D	06/11/2024	VARIOUS		980,332	980,332	(7,512)	1.C FE
46656T--AM-8	JCP Direct Lending CLO 2-JCPDL 2023-1I C	D	06/11/2024	VARIOUS		631,496	631,496	(5,466)	1.F FE
50220P--AB-9	LSEGA Financing PLC-SENIOR UNSECURED	D	06/25/2024	BOFAMLSEC		6,327,977	6,780,000	20,717	1.G FE
59801F--AE-3	MidOcean Credit CLO XV L-MIDO 2024-15A B	D	05/10/2024	GOLDMAN		7,000,000	7,000,000	0	1.D Z
65345X--AA-2	GENESIS AIRCRAFT SERVICE Class A Certifi	C	06/25/2024	VARIOUS		84,219,248	84,219,248	0	1.F Z
65345X--AB-0	GENESIS AIRCRAFT SERVICE Class B Certifi	C	06/17/2024	VARIOUS		32,714,946	33,022,975	0	2.B Z
68626B--AB-4	Antares Capital Advisers-ANTOR 2024-3A A	D	05/03/2024	JP MORGAN SECURITIES		20,000,000	20,000,000	0	1.A FE
68626B--AC-0	Antares Capital Advisers-ANTOR 2024-3A B	D	05/03/2024	JP MORGAN SECURITIES		10,000,000	10,000,000	0	1.C FE
714264--AM-0	PERNOD RICARD SA-SENIOR UNSECURED	D	06/25/2024	BARCLAYS CAPITAL INC		2,405,450	2,500,000	4,063	2.A FE
75009L--AL-0	Rad CLO 16 Ltd-RAD 2022-16A A1R	D	05/03/2024	GOLDMAN		25,500,000	25,500,000	0	1.A FE
76192S--AA-4	REVL 2024-1, Ltd Class A Notes	C	05/28/2024	DIRECT		7,583,333	7,583,333	0	1.D Z
83011V--AC-8	Sixth Street CLO XXV Ltd-SIXST 2024-25A	D	05/15/2024	CITIGROUP GLOBAL MAR		8,300,000	8,300,000	0	1.D Z
000000--00-0	Cura Day Hospitals	B	04/30/2024	BANK LOANS BABSON CA		4,322,813	4,456,507	0	4.C Z
E1000#--AE-9	Acciona Financiacion Fil Green Gtd Senio	B	05/08/2024	DIRECT		37,611,000	37,610,993	0	2.B PL
G1746#--AG-1	Cadent Finance PLC - Senior Unsecured No	B	04/02/2024	DIRECT		(88,800)	(88,799)	0	1.G Z
G1969#--AJ-5	Balfour Beatty PLC Senior Note Series A	D	05/28/2024	HSBC SECURITIES INC		8,035,700	8,035,700	0	2.B Z
G2964#--AA-7	AP Grange Holdings LLC Senior Secured No	C	06/11/2024	DIRECT		50,000,000	50,000,000	0	1.F Z
G4640#--AA-5	Holman Leasing Ltd Senior Guaranteed Not	B	05/23/2024	BANK OF AMERICA		38,136,000	38,136,013	0	2.B Z
G9020*-AC-4	Travis Perkins PLC Senior Note Series A	B	06/14/2024	RBS SECURITIES INC		(19,600)	(19,596)	0	3.B Z
G9020*-AE-0	Travis Perkins PLC Senior Note Series C	B	06/14/2024	RBS SECURITIES INC		(12,600)	(12,597)	0	3.B Z
K7802#--BH-1	Royal Greenland A/S Senior Note		06/11/2024	CITIGROUP GLOBAL MAR		24,111,821	24,111,821	0	2.A Z
L3009#--AA-6	Ergea Group S.A r.L. Guaranteed Secured	B	06/13/2024	DIRECT		12,000	12,009	0	2.B PL
L6256K--AA-8	Maslow Kensington Investments S.A.R.L -	B	05/17/2024	DIRECT		253,535	253,535	0	1.F Z
45254N--NT-0	Impac CMB Trust Series 2005-3		06/25/2024	PAYUP		(1,770)	0	0	1.A FM
1109999999. Subtotal - Bonds - Industrial and Miscellaneous (Unaffiliated)						1,670,921,793	1,695,594,550	4,995,071	XXX
00130H--CK-9	AES 7.6 01/15/55		05/16/2024	CITIGROUP GLOBAL MAR		18,291,000	18,291,000	0	3.B FE
025537--BA-8	American Electric Power -AEP 6.95 12/15/		06/18/2024	VARIOUS		19,996,190	20,000,000	0	3.A FE
04018V--AA-1	ARES FINANCE CO-SUBORDINATED		06/11/2024	VARIOUS		3,880,225	4,177,000	62,999	2.C FE
25746U--DU-0	Dominion Energy Inc-D 7 06/01/54		05/06/2024	MIZUHO SECURITIES		8,333,000	8,333,000	0	2.C FE
29273V--AM-2	Energy Transfer LP-ET 7 1/8 PERP		06/06/2024	BARCLAYS CAPITAL INC		9,887,500	10,000,000	43,542	3.A FE
29336U--AH-0	ENLK Float PERP		04/15/2024	VARIOUS		17,917,133	18,059,000	140,538	3.B FE
65339K--CI-8	NextEra Energy Capital H-NEE 6.7 09/01/5		04/11/2024	VARIOUS		1,351,995	1,356,000	11,104	2.B FE
65339K--DB-3	NextEra Energy Capital H-NEE 6 3/4 06/15		06/05/2024	RBC CAPITAL MARKETS		12,500,000	12,500,000	0	2.B FE
65473P--AR-6	NiSource Inc-NI 6.95 11/30/54		05/22/2024	VARIOUS		14,993,750	15,000,000	7,722	3.A FE
726503--AE-5	Plains All American Pipe-PAA FLOAT PERP		05/15/2024	VARIOUS		3,695,375	3,700,000	1,535	3.A FE
842587--DF-1	Southern Co/The-SO 4 01/15/51		06/20/2024	U B S SECURITIES		9,725,000	10,000,000	173,333	2.C FE
28250N--CF-0	Enbridge Inc-ENBON 7.2 06/27/54	A	06/24/2024	MIZUHO SECURITIES		9,960,000	9,960,000	0	2.C FE
00774Y--AA-7	AerCap Holdings NV-AER 5 7/8 10/10/2079	D	04/17/2024	BOFAMLSEC		14,906,250	15,000,000	22,031	3.A FE
1309999999. Subtotal - Bonds - Hybrid Securities						145,437,418	146,376,000	462,744	XXX
22228#--AD-8	CounterpointeSRE C-PAGE 3111 Sunset Blvd		05/02/2024	DIRECT		603,059	603,059	0	1.F
1509999999. Subtotal - Bonds - Parent, Subsidiaries and Affiliates						603,059	603,059	0	XXX
00463#--AB-4	Accuserve Solutions Inc - 2024 Increment		06/04/2024	BANK LOANS BABSON CA		18,796	18,796	0	3.B Z

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
00463@-AC-2	Accuserve Solutions Inc - 2024 Delayed D		..06/14/2024	BANK LOANS BABSON CA		162,536	162,536	0	4.B Z
00797*-AA-5	Aero Operating LLC/Term Loan 1/20		..04/01/2024	VARIOUS		11,058	11,058	0	3.B PL
03770*-AA-0	Apollo Asset-Backed Finance Lending Comp		..06/28/2024	BANK LOANS BABSON CA		5,000,000	5,000,000	0	1.F Z
03770*-AB-8	Apollo Asset-Backed Finance Lending Comp		..06/28/2024	BANK LOANS BABSON CA		2,000,000	2,000,000	0	2.B Z
03770*-AC-6	Apollo Asset-Backed Finance Lending Comp		..06/28/2024	BANK LOANS BABSON CA		12,000,000	12,000,000	0	2.B Z
04250#-AC-9	ARMSTRONG TRANS GROUP LLC / MAXFR8 LLC T		..05/24/2024	PIK NOTE BUY UP		3,839	3,839	0	4.C
04940#-AA-9	Atlas Securitized Products Funding 3 LP		..06/27/2024	BANK LOANS BABSON CA		67,540,541	67,540,541	0	1.D Z
04940#-AB-7	Atlas Securitized Products Funding 3 LP		..06/27/2024	BANK LOANS BABSON CA		5,959,459	5,959,459	0	2.B Z
04940J-AB-9	Atlas Securitized Products Funding 1 LP		..06/28/2024	BANK LOANS BABSON CA		21,918,126	23,561,448	413,148	1.G Z
04940J-AC-7	Atlas Securitized Products Funding 1 LP		..06/28/2024	BANK LOANS BABSON CA		11,202,885	11,534,564	216,602	1.G Z
05629*-AA-8	BR DSCO I INVESTCO, LLC - Senior Secured		..05/01/2024	BANK LOANS BABSON CA		1,460,000	1,460,000	0	2.B PL
08890@-AB-0	Beyond Risk - Delayed Draw Term Loan		..05/24/2024	BANK LOANS BABSON CA		1,926,706	1,926,706	0	4.C
09262X-AD-3	Blackstone Credit Rated Fund Trust SPV L		..06/12/2024	BANK LOANS BABSON CA		7,846,985	7,846,985	0	1.G PL
09580*-AA-7	BLUE OCEAN INCOME FUND III LP - Class A		..06/25/2024	BANK LOANS BABSON CA		2,075,772	2,075,772	0	1.G PL
09582*-AB-3	Blue Owl Capital Call Facility - Fixed T		..06/11/2024	BANK LOANS BABSON CA		11,750,000	11,750,000	0	1.B Z
09582*-AC-1	Blue Owl Capital Call Facility - Fixed T		..06/12/2024	BANK LOANS BABSON CA		6,500,000	6,500,000	0	1.B Z
10970#-AA-9	Brinley PD SPV I LLC/Revolving Facility		..04/22/2024	BANK LOANS BABSON CA		712,500	712,500	0	1.F PL
12759#-AA-2	CELF SPV LLC - Revolving Senior Secured		..06/21/2024	BANK LOANS BABSON CA		28,571,429	28,571,429	0	1.F PL
14318*-AA-6	CARLYLE SECURED LENDING III SPV, - Senio		..06/07/2024	BANK LOANS BABSON CA		2,760,000	2,760,000	0	2.A PL
000000-00-0	Kellermeyer Bergensons Services, LLC - 2		..05/14/2024	BANK LOANS BABSON CA		144,484	144,484	0	4.A Z
15645#-AA-3	Centric Brands Inc. - 2024 Term Loan A1		..05/06/2024	PIK NOTE BUY UP		61,993	61,993	0	6. PL
15645#-AB-1	Centric Brands Inc. - 2024 Term Loan A2		..05/06/2024	PIK NOTE BUY UP		51,060	51,060	0	6. PL
18539@-AA-8	Cleaver-Brooks Inc - 2022 Fixed PIK Term		..04/01/2024	PIK NOTE BUY UP		980	980	0	5.B GI
21079#-AA-6	CONTINENTAL ACQUISITION HOLDINGS INC. -		..06/28/2024	VARIOUS		13,670	13,670	0	3.B PL
21079#-AB-4	CONTINENTAL ACQUISITION HOLDINGS INC. -		..06/28/2024	VARIOUS		2,782	2,782	0	3.B PL
23942Z-MN-2	DAWSON RATED FUND 6-R1 LP - Secured Clas		..06/18/2024	BANK LOANS BABSON CA		11,597,364	11,597,364	0	1.F Z
23942Z-MO-0	DAWSON RATED FUND 6-R1 LP - Secured Clas		..06/18/2024	BANK LOANS BABSON CA		2,899,341	2,899,341	0	2.B Z
28931@-AB-9	Macon County Georgia School District - B		..04/30/2024	VARIOUS		51,043	51,043	0	3.B PL
29251@-AB-9	Encina Business Credit SPV LLC Revolving		..06/18/2024	BANK LOANS BABSON CA		12,800,000	12,800,000	0	2.B PL
30034@-AA-3	EVERLAKE PRIVATE FUND BORROWER, LLC - Se		..06/13/2024	BANK LOANS BABSON CA		2,000,000	2,000,000	0	2.A PL
31575*-AA-8	First Eagle DCF-A Funding LLC - Revolvin		..05/16/2024	BANK LOANS BABSON CA		1,600,000	1,600,000	0	3.A PL
34960#-AE-3	Fortis Payment Systems LLC 10TH AMEND TE		..06/13/2024	BANK LOANS BABSON CA		2,154	2,154	0	4.C
37963#-AC-7	GLOBAL CRITICAL LOGISTICS LLC USD 7TH AM		..06/06/2024	BANK LOANS BABSON CA		624,508	624,508	0	4.C Z
38050*-AA-7	GOJO Industries Inc. - Term Loan		..05/28/2024	PIK NOTE BUY UP		21,460	21,460	0	4.C Z
40348#-AB-9	Gutter Buyer, Inc. - Term Loan Tranche A		..05/20/2024	BANK LOANS BABSON CA		11,183	8,370	0	3.B PL
000000-00-0	HXSG INTERMEDIARY 2 LLC INITIAL DDTL		..04/02/2024	BANK LOANS BABSON CA		55,879	55,879	0	4.C Z
46127*-AA-9	Invesco Private Credit Opportunities Hol		..05/10/2024	BANK LOANS BABSON CA		2,300,000	2,300,000	0	1.G PL
47235#-AA-2	JEFFERIES DIRECT LENDING FUND II SPE LLC		..06/20/2024	BANK LOANS BABSON CA		4,262,409	4,262,409	0	2.C PL
47236#-AA-1	JEFFERIES DIRECT LENDING OFFSHORE FD II		..06/20/2024	BANK LOANS BABSON CA		1,406,016	1,406,016	0	2.C PL
47236*-AA-5	JEFFERIES DIRECT LENDING OFFSHORE FUND I		..06/20/2024	BANK LOANS BABSON CA		302,354	302,354	0	2.C PL
47236@-AA-3	JEFFERIES DIRECT LENDING FD II C SPE LLC		..06/20/2024	BANK LOANS BABSON CA		741,026	741,026	0	2.C PL
47237#-AA-0	JEFFERIES DIRECT LENDING OFFSHORE FUND I		..06/20/2024	BANK LOANS BABSON CA		1,512,333	1,512,333	0	2.B PL
48773#-AF-7	Kellermeyer Bergensons Services, LLC - 2		..04/30/2024	PIK NOTE BUY UP		64,288	64,288	0	6. Z
48773#-AH-3	Kellermeyer Bergensons Services, LLC - 2		..04/30/2024	VARIOUS		2,117,806	2,117,806	0	4.A Z
50246*-AG-4	LVNV Funding LLC - 1st Lien		..06/12/2024	BANK LOANS BABSON CA		1,250,000	1,250,000	0	1.F Z
50541#-AA-5	Laboratories Bidco LLC/Term Loan 9/19		..06/28/2024	VARIOUS		3,166	3,166	0	3.C PL
50541#-AB-3	Laboratories Bidco LLC/Second Amendment		..06/28/2024	VARIOUS		502	502	0	3.C PL
50541#-AC-1	LABORATORIES BIDCO LLC - THIRD AMENDMENT		..06/28/2024	PIK NOTE BUY UP		4,684	4,684	0	3.C PL

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
50541#-AD-9	LABORATORIES BIDCO LLC - TL		..06/28/2024	PIK NOTE BUY UP		15,215	15,215	0	3.C PL
50541#-AE-7	LABORATORIES BIDCO LLC - DELAYED DRAW TE		..06/28/2024	PIK NOTE BUY UP		118		0	5.B Z
51514#-AA-0	Landmark Equity Partners XVII-B, L.P. -		..04/04/2024	BANK LOANS BABSON CA		1,780,000	1,780,000	0	1.F PL
51514#-AA-8	LANDMARK EQUITY PARTNERS XVII-D LLC REVO		..06/13/2024	BANK LOANS BABSON CA		220,000	220,000	0	1.F PL
54288#-AC-2	LONG TERM CARE GROUP INC AMENDMENT NO 1		..04/19/2024	PIK NOTE BUY UP		4,619		0	5.B
55076#-AA-1	LUXURY MTG CORP REVOLVING LOAN		..05/28/2024	BANK LOANS BABSON CA		500,000	500,000	0	6. *
000000-00-0	MB PURCHASER LLC DDTL		..05/06/2024	BANK LOANS BABSON CA		88,129	88,129	0	4.C Z
60510M-AA#-5	Mission Lane Credit Card Master Trust -		..04/05/2024	BANK LOANS BABSON CA		533,333	533,333	0	2.B PL
60510M-AA#-7	Mission Lane Credit Card Master Trust -		..04/05/2024	BANK LOANS BABSON CA		2,533,333	2,533,333	0	1.F PL
60510M-B#-8	Mission Lane Credit Card Master Trust -		..04/05/2024	BANK LOANS BABSON CA		266,667	266,667	0	3.A PL
62879K-AB-9	NB SOF V ISPV 2022 LLC - Class A Term Lo		..04/18/2024	BANK LOANS BABSON CA		1,729,622	1,729,622	0	1.G PL
62879X-AB-1	NB Select Opportunities ISPV 2022 LLC -		..06/12/2024	BANK LOANS BABSON CA		1,546,936	1,546,936	0	1.G PL
62879X-AC-9	NB Select Opportunities ISPV 2022 LLC -		..06/12/2024	BANK LOANS BABSON CA		358,518	358,518	0	2.C PL
62902#-AA-3	NCL III-PE-D LLC / NCL III-PE-E LLC SECD		..06/13/2024	BANK LOANS BABSON CA		600,000	600,000	0	1.F PL
62931#-AA-2	NMC Skincare Intermediate Holdings II L		..06/06/2024	PIK NOTE BUY UP		1,402	1,402	0	3.B PL
62931#-AC-8	NMC Skincare Intermediate Holdings II L		..06/06/2024	PIK NOTE BUY UP		472	472	0	3.B PL
63001Z-MM-8	NSPC-L HOLDINGS II LP, - Revolver		..05/21/2024	BANK LOANS BABSON CA		35,000,000	35,000,000	0	1.F Z
63147#-AA-6	Nashville Team Holdings LLC - Term Loan		..06/25/2024	BANK LOANS BABSON CA		7,500,000	7,500,000	0	2.B PL
65658#-AA-2	NORTH HAVEN FALCON BUYER LLC - TERM LOA		..05/22/2024	VARIOUS		6,602	6,602	0	3.C PL
65658#-AB-0	NORTH HAVEN FALCON BUYER LLC - DELAYED		..05/31/2024	VARIOUS		1,805	1,805	0	3.C PL
67008#-AA-9	NOVIPAK BUYER LLC INITIAL TERM LN		..06/28/2024	PIK NOTE BUY UP		1,324	1,324	0	2.C PL
67080B-A#-8	NXT Capital Structured Note I, LLC - Cla		..06/05/2024	BANK LOANS BABSON CA		886,427	886,427	0	1.A PL
67117#-AD-1	Office Ally - 2024 Incremental Term Loan		..06/10/2024	BANK LOANS BABSON CA		863,432	867,771	0	4.B Z
68144#-AB-6	Olympia Acquisition, Inc-2022 2nd Amendn		..05/31/2024	PIK NOTE BUY UP		847		0	4.C PL
68144#-AC-4	Olympia Acquisition, Inc - 2022 2nd Amen		..06/20/2024	VARIOUS		1,318	1,318	0	4.C PL
68144#-AD-2	Olympia Acquisition, Inc-2022 Rolled Ter		..05/31/2024	PIK NOTE BUY UP		19,636	19,636	0	4.C PL
68144#-AE-0	Olympia Acquisition, Inc - 2023 First Ou		..06/20/2024	PIK NOTE BUY UP		1,273	1,273	0	4.C PL
70216#-AA-1	PARTNERS GROUP PRIVATE EQUITY II, LLC -		..06/17/2024	BANK LOANS BABSON CA		27,500,000	27,500,000	0	1.F PL
70466#-AA-6	Polymer Solutions Group Holdings LLC - T		..04/04/2024	BANK LOANS BABSON CA		10,346	10,346	0	5.B GI
72305#-AA-7	PINEBRIDGE PRIVATE CREDIT III HOLDINGS L		..06/27/2024	BANK LOANS BABSON CA		1,116,667	1,116,667	0	1.G PL
73112#-AB-6	Policy Services Company, 1L PIK Toggle T		..04/24/2024	PIK NOTE BUY UP		81,061	81,061	0	5.B Z
73112#-AC-4	Policy Services Company, 1L PIK Toggle D		..04/24/2024	VARIOUS		28,716	28,716	0	5.B Z
74066#-AA-4	PREMIER SPECIALTIES INC. - TERM LOAN		..05/31/2024	PIK NOTE BUY UP		1,828		0	3.A PL
000000-00-0	Pretium Packaging LLC New 1st Out Ter		..05/01/2024	PIK NOTE BUY UP		1,006	1,006	0	4.B Z
000000-00-0	Pretium Packaging LLC New 2nd Out Ter		..05/01/2024	PIK NOTE BUY UP		1,918	1,918	0	5.B Z
74309#-AA-7	PRODUCTION RESOURCE GROUP L.L.C. - DELA		..06/28/2024	VARIOUS		7,807	7,807	0	4.C PL
74309#-AB-5	PRG 9/20 Last Out		..06/28/2024	VARIOUS		36,666	36,666	0	4.C PL
74309#-AC-3	PRODUCTION RESOURCE GROUP L.L.C. - DELA		..06/28/2024	VARIOUS		425	425	0	5.B PL
74309#-AD-1	PRODUCTION RESOURCE GROUP L.L.C. - SECD		..05/21/2024	BANK LOANS BABSON CA		1,476	1,476	0	5.B GI
74350E-AA-8	PHP Holdings, LLC - Bridge Term Loan		..04/25/2024	BANK LOANS BABSON CA		1,956,800	2,000,000	0	4.A Z
74354#-AA-1	PROJECT ESSENTIAL BIDCO LLC - TERM LOAN		..05/28/2024	PIK NOTE BUY UP		3,135	3,135	0	4.A PL
000000-00-0	PROSPECT INTER HLDGS LLC/PROSPECT PHYSIC		..04/25/2024	BANK LOANS BABSON CA		15,033,864	15,398,816	0	4.A Z
75279#-AB-2	RANDYS HLDGS INC DELAYED DRAW TERM LOAN		..04/18/2024	BANK LOANS BABSON CA		35,300	35,300	0	4.C Z
000000-00-0	ROYAL HOLDCO CORP DELAYED DRAW TERM LN B		..04/18/2024	BANK LOANS BABSON CA		43,597	43,597	0	4.C Z
000000-00-0	SSE Buyer, Inc - 2022 2nd Lien Term Loan		..04/24/2024	PIK NOTE BUY UP		13,416	13,416	0	2.B Z
78503#-AA-4	SPV FACILITY I LLC - Senior Secured Revo		..06/14/2024	BANK LOANS BABSON CA		6,000,000	6,000,000	0	1.G PL
81272#-AB-7	Seattle Soccer LLC - 2023 Multi Draw Ter		..06/18/2024	VARIOUS		2,887,860	2,887,860	0	2.A PL
816307-AA#-1	SelectQuote Inc./Term Loan 10/19		..06/28/2024	PIK NOTE BUY UP		5,414	5,414	0	3.C PL

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
82419*-AC-7	Shermco Intermediate Holdings Inc. - 202		06/10/2024	BANK LOANS BABSON CA		15,187	15,187	0	3.B PL
84724*-AB-1	Sparus Holdings LLC - Delayed Draw Term		05/15/2024	BANK LOANS BABSON CA		128,247	128,247	0	4.C
84967*-AA-9	SPRING INSURANCE SOLUTIONS LLC - INITIA		04/30/2024	BANK LOANS BABSON CA		8,686	8,686	0	3.A PL
84967*-AB-7	SPRING INSURANCE SOLUTIONS LLC - DELAYE		04/30/2024	BANK LOANS BABSON CA		1,480	1,480	0	3.A PL
86662*-AB-0	SUN ACQUIRER CORP		06/25/2024	BANK LOANS BABSON CA		(311,256)	(311,256)	0	3.B PL
87338*-AC-4	Technosylva - Delayed Draw Term Loan		05/31/2024	BANK LOANS BABSON CA		672,566	672,566	0	4.C Z
88167*-AA-8	Tetragon Financial Group (Delaware) LLC		06/05/2024	BANK LOANS BABSON CA		10,000,000	10,000,000	0	1.F PL
91860*-AA-6	VPC ASSET BACKED OPPORTUNISTIC CREDIT Ho		06/13/2024	BANK LOANS BABSON CA		3,975,527	3,975,527	0	1.F PL
928432-A#-0	Visual Edge Technology, Inc./Last Out T		05/22/2024	PIK NOTE BUY UP		18,282	18,282	0	5.B PL
96524K-AD-2	WHITEHORSE LIQUIDITY PARTNERS V-R LP, -C		06/17/2024	BANK LOANS BABSON CA		1,709,400	1,709,400	0	1.G PL
000000-00-0	Woodland Foods Inc - 2024 Incremental Te		04/09/2024	BANK LOANS BABSON CA		144,106	147,047	0	5.B Z
98415D-AA-3	XIFIN Inc./Term Loan 02/20		06/28/2024	PIK NOTE BUY UP		6,961	6,961	0	3.B PL
98876*-AE-5	ZB Holdco LLC - 2023 Incremental Delayed		04/18/2024	BANK LOANS BABSON CA		62,376	62,376	0	3.B PL
000000-00-0	Kings III - Delayed Draw Term Loan		05/30/2024	BANK LOANS BABSON CA		100,108	100,108	0	5.B GI
000000-00-0	Checkout Holding Corp. - 2023 Exit Term		05/13/2024	PIK NOTE BUY UP		9,684	9,684	0	5.B Z
000000-00-0	CyrusOne LP Senior Term Lo		05/07/2024	BANK LOANS BABSON CA		72,099	22,421,500	0	2.B Z
000000-00-0	LeadsOnline LLC - 2024 Incremental Term		05/17/2024	BANK LOANS BABSON CA		745,598	749,345	0	4.C Z
000000-00-0	Tencarva Machinery Company LLC - 2024 In		05/08/2024	BANK LOANS BABSON CA		1,606,948	1,639,743	0	4.B Z
000000-00-0	Coherus Biosciences Inc - Term Loan		05/08/2024	BANK LOANS BABSON CA		3,871,256	3,990,985	0	3.B Z
000000-00-0	Project Maple Term Loan		05/21/2024	BANK LOANS BABSON CA		17,000,000	17,000,000	0	1.F Z
68656*-AA-9	TPG TIGER HOLDCO, LLC, - Class A Term Lo		05/24/2024	BANK LOANS BABSON CA		2,215,105	2,215,105	0	1.G PL
68656*-AB-7	TPG TIGER HOLDCO, LLC, - Class B Term Lo		05/24/2024	BANK LOANS BABSON CA		738,368	738,368	0	2.B PL
69341J-AN-0	Veritas US Inc. - 2021 USD Term Loan B		04/04/2024	BANK LOANS BABSON CA		76	76	0	5.A FE
000000-00-0	Cascade Services - Delayed Draw Term Loa		04/01/2024	BANK LOANS BABSON CA		19,252	19,252	0	4.C Z
00259*-HM-3	ASF VIII SUNTORI, L.P and ASF VIII B SUN	B.	06/25/2024	BANK LOANS BABSON CA		42,820,000	42,819,997	0	1.F Z
000000-00-0	Innovad NV - 2024 EUR Delayed Draw Term	B.	04/29/2024	BANK LOANS BABSON CA		2,624,301	2,624,301	0	4.C Z
000000-00-0	Auris Luxembourg III S.a.r.l. - 2024 EUR	B.	04/30/2024	BANK LOANS BABSON CA		1,064,568	1,067,900	0	4.C Z
000000-00-0	Solor Bioenergi AB - SEK Term Loan	B.	05/23/2024	BANK LOANS BABSON CA		30,409,368	30,716,533	0	2.B Z
000000-00-0	Tech 7 SAS Super Senior EU	B.	06/10/2024	BANK LOANS BABSON CA		79,553	79,553	0	5.B Z
000000-00-0	IMI SQUARE EURO SR BDS C	B.	05/14/2024	BANK LOANS BABSON CA		2,419,492	2,487,909	0	4.C Z
64701*-AA-1	IFM USIDF (INTERMEDIATE) B, L.P. - Secur	D.	04/01/2024	BANK LOANS BABSON CA		458,333	458,333	0	2.A PL
000000-00-0	Preqin Ltd - 2024 GBP Incremental Delaye	B.	04/22/2024	BANK LOANS BABSON CA		1,215,256	1,215,256	0	4.C Z
67741*-AA-6	SSG CREDIT STRATEGIES VII ICAV - Senior	D.	06/05/2024	BANK LOANS BABSON CA		640,000	640,000	0	1.E PL
L4807*-AA-2	HL SCOPE MASTER SICAV-RAIF SCSp - Senior	D.	05/22/2024	BANK LOANS BABSON CA		7,500,000	7,500,000	0	1.F PL
L9714*-AA-3	WEST STREET EUROPEAN PRIVATE CREDIT MM S	B.	06/24/2024	BANK LOANS BABSON CA		11,346,413	11,346,413	0	1.G PL
L9714*-AC-9	WEST STREET EUROPEAN PRIVATE CREDIT MM S	B.	06/24/2024	BANK LOANS BABSON CA		11,346,413	11,346,413	0	1.G PL
L9714*-AD-7	WEST STREET EUROPEAN PRIVATE CREDIT MM S	D.	04/09/2024	BANK LOANS BABSON CA		379,000	379,000	0	1.G PL
Y0019*-AD-0	Acclime Holdings HK Limited USD Fac D L	D.	04/29/2024	BANK LOANS BABSON CA		454,545	454,545	0	5.B GI
000000-00-0	850 Lake Shore CML - Bank Debt Revolver		06/30/2024	PRIVATE		(30,271,250)	(30,500,000)	0	2.B Z
000000-00-0	CyrusOne LP Senior Term Lo	B.	05/07/2024	BANK LOANS BARINGS		17,018,141	0	0	2.B Z
1909999999. Subtotal - Bonds - Unaffiliated Bank Loans						486,865,635	494,890,945	629,750	XXX
2509999997. Total - Bonds - Part 3						2,321,012,040	2,354,479,553	6,132,346	XXX
2509999998. Total - Bonds - Part 5						XXX	XXX	XXX	XXX
2509999999. Total - Bonds						2,321,012,040	2,354,479,553	6,132,346	XXX
69078F-13-1	Triton International Ltd-TRITON INTERNAT	D.	04/15/2024	SEAPORT GROUP	24,149,000	605,829	0.00	0	3.A FE
69078F-15-6	Triton International Ltd-TRITON INTERNAT	D.	04/15/2024	SEAPORT GROUP	15,249,000	305,030	0.00	0	3.A FE
4019999999. Subtotal - Preferred Stocks - Industrial and Miscellaneous (Unaffiliated) Perpetual Preferred						910,859	XXX	0	XXX
03770*-HM-1	APOLLO ASSET-BACKED FINANCE LENDING COMP		06/28/2024	DIRECT	3,000,000	3,000,000	0.00	0	6.*
14314C-10-5	Carlyle Finance LLC-CARLYLE FINANCE LLC		04/08/2024	SEAPORT GROUP	51,625,000	1,021,605	0.00	0	2.B FE
30290Y-A*-2	FS Credit Opportunities Series 2029 Term		05/16/2024	DIRECT	15,000,000	15,000,000	0.00	0	1.D Z

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 3

Show All Long-Term Bonds and Stock Acquired During the Current Quarter

1	2	3	4	5	6	7	8	9	10
CUSIP Identification	Description	Foreign	Date Acquired	Name of Vendor	Number of Shares of Stock	Actual Cost	Par Value	Paid for Accrued Interest and Dividends	NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol
55076*-11-1	Luxury Mortgage Corp Series I Preferred .....	.....	.....05/28/2024	DIRECT	500,000.000	500,000	0.00	0	4.C Z
872652-10-2	TPG Operating Group II L-TPG OPERATING G .....	.....	.....04/11/2024	MORGAN	(1,230,775.000)	(30,769,375)	0.00	0	2.C FE
4029999999. Subtotal - Preferred Stocks - Industrial and Miscellaneous (Unaffiliated) Redeemable Preferred						(11,247,770)	XXX	0	XXX
4509999997. Total - Preferred Stocks - Part 3						(10,336,911)	XXX	0	XXX
4509999998. Total - Preferred Stocks - Part 5						XXX	XXX	XXX	XXX
4509999999. Total - Preferred Stocks						(10,336,911)	XXX	0	XXX
16411R-20-8	CHENIERE ENERGY INC-COMMON STOCK .....	.....	.....05/17/2024	BLOOMBERG TRADEBOOK	3,200.000	510,835 .....	.....	.....0 .....	.....
30231G-10-2	Exxon Mobil Corp-COMMON STOCK .....	.....	.....05/03/2024	MERGER	500.000	113,662 .....	.....	.....0 .....	.....
35671D-85-7	FREEPORT-MCMORAN INC-COMMON STOCK .....	.....	.....04/29/2024	BLOOMBERG TRADEBOOK	3,500.000	182,317 .....	.....	.....0 .....	.....
36828A-10-1	GE Vernova Inc-COMMON STOCK .....	.....	.....04/02/2024	SPIN OFF	400.000	37,374 .....	.....	.....0 .....	.....
55336V-10-0	MPLX LP COMMON UNIT .....	.....	.....05/01/2024	VARIOUS	22,000.000	922,535 .....	.....	.....0 .....	.....
866142-40-9	Summit Midstream Partner-COMMON STOCK .....	.....	.....06/24/2024	RILY	9,000.000	324,990 .....	.....	.....0 .....	.....
86765K-10-9	SUNOCO LP COMMON STK .....	.....	.....05/03/2024	MERGER	186,038.000	3,370,083 .....	.....	.....0 .....	.....
87807B-10-7	TC Energy Corp-COMMON STOCK .....	.....	.....06/06/2024	VARIOUS	37,300.000	1,450,758 .....	.....	.....0 .....	.....
34959A-20-6	Fortescue Ltd-ADR	C.....	04/29/2024	BLOOMBERG TRADEBOOK	2,000.000	67,582 .....	.....	.....0 .....	.....
37827X-10-0	Glencore PLC-ADR	C.....	04/29/2024	BLOOMBERG TRADEBOOK	15,000.000	177,805 .....	.....	.....0 .....	.....
38059T-10-6	GOLD FIELDS LTD-ADR	C.....	04/18/2024	BLOOMBERG TRADEBOOK	16,000.000	283,370 .....	.....	.....0 .....	.....
84473L-10-5	SOUTH32 LTD-ADR	C.....	04/18/2024	BLOOMBERG TRADEBOOK	21,000.000	222,204 .....	.....	.....0 .....	.....
86563T-10-4	Sumitomo Metal Mining Co-ADR	C.....	04/18/2024	BLOOMBERG TRADEBOOK	34,000.000	278,925 .....	.....	.....0 .....	.....
000000-00-0	CP Argo Marina Holdings .....	.....	.....06/14/2024	PRIVATE	(537,351.740)	(537,352) .....	.....	.....0 .....	.....
5019999999. Subtotal - Common Stocks - Industrial and Miscellaneous (Unaffiliated) Publicly Traded						7,405,088	XXX	0	XXX
5989999997. Total - Common Stocks - Part 3						7,405,088	XXX	0	XXX
5989999998. Total - Common Stocks - Part 5						XXX	XXX	XXX	XXX
5989999999. Total - Common Stocks						7,405,088	XXX	0	XXX
5999999999. Total - Preferred and Common Stocks						(2,931,823)	XXX	0	XXX
6009999999 - Totals						2,318,080,217	XXX	6,132,346	XXX

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 4

Show All Long-Term Bonds and Stock Sold, Redeemed or Otherwise Disposed of During the Current Quarter

1	2	3	4	5	6	7	8	9	10	Change In Book/Adjusted Carrying Value					16	17	18	19	20	21	22
										11	12	13	14	15							
CUSIP Identification	Description	For- eign	Disposal Date	Name of Purchaser	Number of Shares of Stock	Consid- eration	Par Value	Actual Cost	Prior Year Book/ Adjusted Carrying Value	Unrealized Valuation Increase/ (Decrease)	Current Year's (Amor- tization)/ Accretion	Current Year's Other Than Temporary Impairment Recogn- ized	Total Change in Book/ Adjusted Carrying Value (11 + 12 - 13)	Total Foreign Exchange Change in Book /Adjusted Carrying Value	Book/ Adjusted Carrying Value at Disposal Date	Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal	Bond Interest/ Stock Dividends Received During Year	Stated Con- tractual Maturity Date	NAIC Desig- nation, NAIC Desig- nation Modifier and SVO Admini- strative Symbol
..049650-AA-1	Atreides Funding Trust - Pass-Through In ...		06/18/2024	CA_CASH_CLOSE		2,091,374	2,091,374	2,091,374	2,091,374	0	0	0	0	0	2,091,374	0	0	0	5,249	11/18/2083	1.G PL
..054640-AA-2	Axiom Merger Sub Inc./Facility B Term Lo ...		04/29/2024	CA_CASH_CLOSE		3,516	3,516	3,389	3,439	0	0	0	0	0	3,439	0	77	77	486	04/10/2026	3.B PL
..05631*-AB-2	BREDIF MM LSA LLC - Term Loan Series 202		04/11/2024	CA_CASH_CLOSE		3,971,975	3,971,975	3,971,975	3,971,975	0	0	0	0	0	3,971,975	0	0	0	75,051	10/20/2027	1.E PL
..05631*-AC-0	BREDIF MM LSA LLC - Term Loan Series 202		04/11/2024	CA_CASH_CLOSE		6,347,367	6,347,367	6,347,367	6,347,367	0	0	0	0	0	6,347,367	0	0	0	120,266	10/20/2027	1.E PL
..05631*-AD-8	BREDIF MM LSA LLC - Term Loan Series 202		04/11/2024	CA_CASH_CLOSE		1,526,250	1,526,250	1,526,250	1,526,250	0	0	0	0	0	1,526,250	0	0	0	30,548	10/01/2025	1.E PL
..056340-AB-7	BSI3 Hold Teal Inc. - First Lien Term Lo ...		06/28/2024	CA_CASH_CLOSE		114,583	114,583	114,583	114,583	0	0	0	0	0	114,583	0	0	0	9,747	08/21/2028	2.C PL
..066830-AB-5	BANYAN SOFTWARE HOLDINGS LLC - DELAYED		04/15/2024	VARIOUS		(600)	(600)	(600)	(600)	0	0	0	0	0	(600)	0	0	0	(10,057)	10/30/2026	3.B PL
..07363*-AD-8	BEACON MOBILITY CORP AMEND NO 4 DDTL		05/30/2024	CA_CASH_CLOSE		13,201	13,201	13,201	13,201	0	0	0	0	0	13,201	0	0	0	1,105	06/28/2024	4.C
..088900-AA-2	Beyond Risk - Term Loan		04/18/2024	BANK LOANS BARINGS		1,558,773	1,564,248	1,532,963	1,534,138	0	0	0	0	0	1,534,138	0	24,635	24,635	113,349	10/08/2027	4.C
..088900-AB-0	Beyond Risk - Delayed Draw Term Loan		06/28/2024	CA_CASH_CLOSE		8,001	8,001	8,001	8,001	0	0	0	0	0	8,001	0	0	0	0	0	0
..091730-AA-8	Bitly - Term Loan B		04/18/2024	BANK LOANS BARINGS		1,789,609	1,795,354	1,768,424	1,768,705	0	0	0	0	0	1,768,705	0	20,905	20,905	98,704	11/22/2026	4.C
..10483*-AC-9	BRAGG LIVE FOOD PRODUCTS LLC - TERM LOAN		06/28/2024	CA_CASH_CLOSE		125,211	125,211	125,211	125,211	0	0	0	0	0	125,211	0	0	0	28,903	12/29/2025	3.A PL
..10947U-AC-2	BrightSign - Term Loan		06/28/2024	CA_CASH_CLOSE		5,580	5,580	5,524	5,526	0	0	0	0	0	5,526	0	54	54	1,106	10/14/2027	3.A PL
..124640-AA-0	CAI Software - Term Loan		06/28/2024	CA_CASH_CLOSE		9,873	9,873	9,676	9,676	0	0	0	0	0	9,676	0	197	197	1,477	12/10/2028	5.A
..127560-AA-7	Cogeneity Global - Term Loan		06/28/2024	CA_CASH_CLOSE		11,122	11,122	10,900	10,900	0	0	0	0	0	10,900	0	222	222	5,340	02/14/2028	4.C
..127560-AB-5	CGI PARENT LLC 1st AMEND TERM LOAN		06/28/2024	CA_CASH_CLOSE		1,223	1,223	1,186	1,186	0	0	0	0	0	1,186	0	37	37	102	02/14/2028	4.C
..12759*-AA-2	CELIF SPV LLC - Revolving Senior Secured		06/04/2024	CA_CASH_CLOSE		14,285,714	14,285,714	14,285,714	14,285,714	0	0	0	0	0	14,285,714	0	0	0	512,181	12/20/2029	1.F PL
..127810-AB-4	CRE II LENDER SUB I, LLC - Term Loan Ser		06/20/2024	CA_CASH_CLOSE		2,741,120	2,741,120	2,741,120	2,741,120	0	0	0	0	0	2,741,120	0	0	0	69,871	02/07/2028	1.F PL
..14318*-AA-6	CARLYLE SECURED LENDING III SPV, - Senio		06/21/2024	CA_CASH_CLOSE		1,200,000	1,200,000	1,200,000	1,200,000	0	0	0	0	0	1,200,000	0	0	0	17,291	09/30/2030	2.A PL
..000000-00-0	Kellermeyer Bergensons Services, LLC - 2		06/30/2024	BANK LOANS BARINGS		144,484	144,484	144,484	0	0	0	0	0	0	144,484	0	0	0	0	11/09/2026	4.A Z
..16117L-BW-8	Charter Communications O-CHTR TL B1 1L U		06/28/2024	CA_CASH_CLOSE		19,235	19,235	16,349	17,303	0	0	0	0	0	17,303	0	1,931	1,931	1,125	04/30/2025	2.C FE
..16117L-CB-3	Charter Communications I TL B-4 due Dece		06/28/2024	CA_CASH_CLOSE		13,532	13,532	13,464	13,464	0	0	0	0	0	13,464	0	68	68	304	11/30/2030	2.C FE
..185390-AA-6	Cleaver-Brooks Inc - 2022 Term Loan		05/15/2024	CA_CASH_CLOSE		3,447,238	3,447,238	3,378,293	3,378,293	0	0	0	0	0	3,378,293	0	68,945	68,945	327,758	07/14/2028	5.A
..185390-AA-8	Cleaver-Brooks Inc - 2022 Fixed PIK Term		05/15/2024	CA_CASH_CLOSE		728,688	728,688	713,795	690,763	0	0	0	0	0	713,795	0	14,893	14,893	0	07/14/2029	5.B GI
..20470*-AB-5	Comply365 - 2023 Incremental Term Loan		06/28/2024	CA_CASH_CLOSE		918	918	900	900	0	0	0	0	0	900	0	18	18	37	12/21/2029	4.C Z
..23344U-AC-4	DS Admiral Bidco LLC-DSADBI TL 1L USD		04/22/2024	CA_CASH_CLOSE		(39,375)	(39,375)	(39,375)	(39,375)	0	0	0	0	0	(39,375)	0	0	0	2,190	03/16/2028	3.A PL
..23345U-AB-5	Disa Holdings Corp. - Delayed Draw Term		04/01/2024	CA_CASH_CLOSE		178	178	178	178	0	0	0	0	0	178	0	0	0	8	09/09/2028	3.A PL
..23345U-AD-1	Disa Holdings Corp. - Term Loan A		04/01/2024	CA_CASH_CLOSE		1,066	1,066	1,034	1,034	0	0	0	0	0	1,034	0	32	32	61	09/09/2028	3.A PL
..233630-AB-5	DRS Holdings III Inc./Term Loan 11/19		05/09/2024	CA_CASH_CLOSE		1,248	1,248	1,248	1,248	0	0	0	0	0	1,248	0	0	0	72	11/01/2025	3.A PL
..233630-AC-3	DRS HOLDINGS III INC. - 2021 TERM LOAN		05/09/2024	CA_CASH_CLOSE		880	880	880	880	0	0	0	0	0	880	0	0	0	76	11/01/2025	3.A PL
..243600-AA-6	DECOPEC INC. - TERM B LOAN		06/28/2024	CA_CASH_CLOSE		1,493	1,493	1,493	1,493	0	0	0	0	0	1,493	0	0	0	1,775	05/15/2028	3.B PL
..248230-AA-1	DENALI HOLDCO LLC		04/02/2024	CA_CASH_CLOSE		938	938	938	938	0	0	0	0	0	938	0	0	0	654	09/15/2027	3.B PL
..254030-AN-6	DILIGENT CORPORATION (FKA DIAMOND MERGER		04/30/2024	CA_CASH_CLOSE		2,714,250	2,714,250	2,714,250	2,714,250	0	0	0	0	0	2,714,250	0	0	0	403,414	08/04/2025	3.C PL
..254030-AR-7	DILIGENT CORPORATION		04/30/2024	CA_CASH_CLOSE		37,519	37,519	37,519	37,519	0	0	0	0	0	37,519	0	0	0	2,654	08/04/2025	3.C PL
..254030-AT-3	DILIGENT CORPORATION (FKA DIAMOND MERGER		04/30/2024	CA_CASH_CLOSE		181,875	181,875	180,056	180,389	0	0	0	0	0	180,389	0	1,486	1,486	51,211	08/04/2025	3.C PL
..254030-AU-0	DILIGENT CORPORATION (FKA DIAMOND MERGER		04/30/2024	CA_CASH_CLOSE		181,875	181,875	181,875	181,875	0	0	0	0	0	181,875	0	0	0	27,270	08/04/2025	3.C PL
..254030-AW-6	Diligent Corporation - 2022 Delayed Draw		04/30/2024	CA_CASH_CLOSE		59,976	59,976	59,976	59,976	0	0	0	0	0	59,976	0	0	0	9,404	08/04/2025	3.C PL
..26745L-AC-2	Dwyer Instruments Inc - Term Loan		06/28/2024	CA_CASH_CLOSE		6,752	6,752	6,617	6,617	0	0	0	0	0	6,617	0	135	135	954	07/01/2027	5.A
..26745L-AE-8	Dwyer Instruments Inc - 2023 Incremental		06/30/2024	CA_CASH_CLOSE		(899)	(899)	(881)	(881)	0	0	0	0	0	(881)	0	(18)	(18)	0	07/21/2027	4.C Z
..267890-AA-6	DYNAMIC INC AEROSPACE HOLDINGS LLC - TER		04/01/2024	CA_CASH_CLOSE		3,364	3,364	3,364	3,364	0	0	0	0	0	3,364	0	0	0	1,004	12/30/2026	2.C PL
..268690-AA-1	Standard Elevator Systems - Term Loan		06/28/2024	CA_CASH_CLOSE		7,458	7,458	7,308	7,310	0	0	0	0	0	7,310	0	147	147	791	12/02/2027	5.B GI
..268690-AB-9	Standard Elevator Systems - Delayed Draw		06/28/2024	CA_CASH_CLOSE		1,943	1,943	1,943	1,943	0	0	0	0	0	1,943	0	0	0	414	12/02/2027	5.B GI
..268870-AB-7	EP HEALTH ADVISORS LLC - DELAYED DRAW T		06/13/2024	CA_CASH_CLOSE		(1,305)	(1,305)	(1,305)	(1,305)	0	0	0	0	0	(1,305)	0	0	0	487	09/04/2026	1.G PL
..268880-AA-0	EPS Nass Parent Inc. - Term Loan		06/30/2024	CA_CASH_CLOSE		2,285	2,285	2,285	2,285	0	0	0	0	0	2,285	0	0	0	444	04/19/2028	2.C PL
..268880-AB-8	EPS Nass Parent Inc. - Delayed Draw Term		05/23/2024	CA_CASH_CLOSE		25,078	25,078	25,078	25,078	0	0	0	0	0	25,078	0	0	0	1,245	04/19/2028	3.A PL
..28619*-AA-2	ELEMICA PARENT INC. - DELAYED DRAW TERM		05/17/2024	CA_CASH_CLOSE		229,209	229,209	229,209	229,209	0	0	0	0	0	229,209	0	0	0	24,534	09/18/2025	3.B PL

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 4

Show All Long-Term Bonds and Stock Sold, Redeemed or Otherwise Disposed of During the Current Quarter

1	2	3	4	5	6	7	8	9	10	Change In Book/Adjusted Carrying Value					16	17	18	19	20	21	22
										11	12	13	14	15							
CUSIP Identification	Description	For- eign	Disposal Date	Name of Purchaser	Number of Shares of Stock	Consid- eration	Par Value	Actual Cost	Prior Year Book/ Adjusted Carrying Value	Unrealized Valuation Increase/ (Decrease)	Current Year's (Amor- tization)/ Accretion	Current Year's Other Than Temporary Impairment Recogn- ized	Total Change in Book/ Adjusted Carrying Value (11 + 12 - 13)	Total Foreign Exchange Change in Book /Adjusted Carrying Value	Book/ Adjusted Carrying Value at Disposal Date	Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal	Bond Interest/ Stock Dividends Received During Year	Stated Con- tractual Maturity Date	NAIC Desig- nation, NAIC Desig- nation Modifier and SVO Admini- strative Symbol
..45321*-AA-5	Implus Footcare LLC/Spenco Incremental		05/17/2024	CA_CASH_CLOSE		(343)	(343)	(342)	(344)	0	1	0	1	0	(343)	0	0	0	140	07/31/2025	3.C PL
..45686@-AB-0	Infrastripe LLC		06/28/2024	CA_CASH_CLOSE		6,245	6,245	6,141	6,183	0	0	0	0	0	6,183	0	62	62	377	09/30/2024	3.A PL
..45686@-AC-8	Infrastripe LLC Delayed Draw		06/28/2024	CA_CASH_CLOSE		4,148	4,148	4,148	4,148	0	0	0	0	0	4,148	0	0	0	250	09/30/2024	3.A PL
..46126#-AA-6	IntraPac International LLC/U.S. Term Loa		06/28/2024	CA_CASH_CLOSE		2,826	2,826	2,762	2,789	0	0	0	0	0	2,789	0	37	37	595	01/11/2026	3.B PL
..46126#-AB-4	INTRAPAC PARENT INC. - FIRST AMENDMENT T		06/28/2024	CA_CASH_CLOSE		366	366	366	366	0	0	0	0	0	366	0	0	0	1,050	01/11/2026	3.B PL
..47235#-AA-2	JEFFERIES DIRECT LENDING FUND II SPE LLC		06/03/2024	CA_CASH_CLOSE		2,362,799	2,362,799	2,362,799	2,362,799	0	0	0	0	0	2,362,799	0	0	0	39,254	06/17/2031	2.C PL
..47236#-AA-1	JEFFERIES DIRECT LENDING OFFSHORE FD II		06/25/2024	CA_CASH_CLOSE		2,193,438	2,193,438	2,193,438	2,193,438	0	0	0	0	0	2,193,438	0	0	0	41,254	06/17/2031	2.C PL
..47236#-AA-5	JEFFERIES DIRECT LENDING OFFSHORE FUND I		06/03/2024	CA_CASH_CLOSE		425,545	425,545	425,545	425,545	0	0	0	0	0	425,545	0	0	0	9,305	06/17/2031	2.C PL
..47236@-AA-3	JEFFERIES DIRECT LENDING FD II C SPE LLC		06/03/2024	CA_CASH_CLOSE		382,136	382,136	382,136	382,136	0	0	0	0	0	382,136	0	0	0	6,177	06/17/2031	2.C PL
..47237#-AA-0	JEFFERIES DIRECT LENDING OFFSHORE FUND I		06/25/2024	CA_CASH_CLOSE		2,168,813	2,168,813	2,168,813	2,168,813	0	0	0	0	0	2,168,813	0	0	0	26,297	06/17/2031	2.B PL
..48458@-AD-6	Kano Laboratories LLC - 2024 Incremental		06/28/2024	CA_CASH_CLOSE		4,396	4,396	4,308	0	0	0	0	0	0	4,308	0	88	88	108	11/19/2026	4.C Z
..48773#-AC-4	KELLERMAYER BERGENSONS SERVICES LLC - 2		05/20/2024	CA_CASH_CLOSE		638,256	638,256	638,256	638,256	0	0	0	0	0	638,256	0	0	0	33,620	11/07/2026	4.A PL
..48773#-AD-2	KELLERMAYER BERGENSONS SERVICES LLC - A		05/14/2024	CA_CASH_CLOSE		900,662	900,662	882,649	884,216	0	0	0	0	0	884,216	0	16,446	16,446	87,505	11/07/2026	4.B PL
..48773#-AF-7	Kellermeyer Bergensons Services, LLC - 2		06/30/2024	CA_CASH_CLOSE		1,287,815	1,287,815	1,287,815	0	0	0	0	0	0	1,287,815	0	0	0	0	11/07/2026	6. *
..49375@-AA-0	DistroKid Senior Term Loa		06/28/2024	CA_CASH_CLOSE		17,414	17,414	17,065	17,080	0	0	0	0	0	17,080	0	334	334	2,902	09/30/2027	5.A
..50541#-AE-7	LABORATORIES BIDCO LLC - DELAYED DRAW TE		04/15/2024	CA_CASH_CLOSE		(403)	(403)	(403)	(403)	0	0	0	0	0	(403)	0	0	0	179	07/23/2027	5.B GI
..51206#-AA-9	LAKERS BUYER INC. - TERM LOAN		06/03/2024	CA_CASH_CLOSE		(1,177)	(1,177)	(1,177)	(1,177)	0	0	0	0	0	(1,177)	0	0	0	376	03/22/2027	3.C PL
..51206#-AB-7	LAKERS BUYER INC. - INITIAL DELAYED DRA		06/03/2024	CA_CASH_CLOSE		(427)	(427)	(427)	(427)	0	0	0	0	0	(427)	0	0	0	242	03/22/2027	3.C PL
..52172*-AA-1	LeadsOnline - Term Loan		06/30/2024	CA_CASH_CLOSE		5,379	5,379	5,293	4,871	0	0	0	0	0	5,293	0	87	87	558	02/07/2028	5.A
..53173#-AA-4	LIDO ADVISORS LLC - INITIAL TERM LOAN		04/04/2024	CA_CASH_CLOSE		558	558	558	558	0	0	0	0	0	558	0	0	0	9	06/15/2027	2.C PL
..53173#-AB-2	LIDO ADVISORS LLC - DELAYED DRAW TERM L		04/04/2024	CA_CASH_CLOSE		698	698	698	698	0	0	0	0	0	698	0	0	0	39	06/15/2027	2.C PL
..53186*-AB-1	LIFE EXTENSION INSTITUTE INC RESTATEMENT		04/18/2024	VARIOUS		1,425,639	1,425,639	1,425,639	1,425,639	0	0	0	0	0	1,425,639	0	0	0	104,852	02/19/2026	5.A
..55183*-AC-7	Lynx Franchising LLC - 2021-09 Increment		06/28/2024	CA_CASH_CLOSE		7,378	7,378	7,231	7,231	0	0	0	0	0	7,231	0	148	148	1,372	12/23/2026	4.C
..55343@-AC-2	MUX VENTURE SENIOR TL L+1.682 04/30/2031		04/20/2024	CA_CASH_CLOSE		1,895,727	1,895,727	1,895,727	1,895,926	0	0	0	0	0	1,895,926	0	(199)	(199)	35,210	04/30/2031	1.D PL
..55343@-AF-5	MJX Venture Mgmt III LLC Senior TL		04/30/2024	CA_CASH_CLOSE		25,000	25,000	25,000	25,000	0	0	0	0	0	25,000	0	0	0	492	07/30/2032	1.F PL
..55343@-AG-3	MJX Venture Mgmt III LLC Senior TL		04/15/2024	CA_CASH_CLOSE		278,037	278,037	278,037	278,012	0	0	0	0	0	278,012	0	25	25	0	10/15/2031	1.C PL
..56629@-AA-9	MARCO NE YELLOWSTONE BUYER INC. - TERM LO		06/28/2024	CA_CASH_CLOSE		1,633	1,633	1,600	1,602	0	0	0	0	0	1,602	0	30	30	584	06/23/2028	3.C PL
..56629@-AB-7	MARCO NE YELLOWSTONE BUYER INC. - DELAYED		06/28/2024	CA_CASH_CLOSE		270	270	270	270	0	0	0	0	0	270	0	0	0	145	06/23/2028	3.C PL
..57233#-AB-1	Marshall Excelsior - Term Loan		06/28/2024	CA_CASH_CLOSE		1,144	1,144	1,124	1,124	0	0	0	0	0	1,124	0	20	20	254	02/18/2028	4.C
..59509#-AA-6	Micromeritics Instrument Corp./Term Loan		06/28/2024	CA_CASH_CLOSE		17,918	17,918	17,918	17,918	0	0	0	0	0	17,918	0	0	0	1,249	12/18/2025	2.B PL
..60510M-A#-5	Mission Lane Credit Card Master Trust -		04/16/2024	CA_CASH_CLOSE		2,666,667	2,666,667	2,666,667	0	0	0	0	0	0	2,666,667	0	0	0	58,262	10/15/2027	2.B PL
..60510M-A@-7	Mission Lane Credit Card Master Trust -		04/16/2024	CA_CASH_CLOSE		12,666,667	12,666,667	12,666,667	0	0	0	0	0	0	12,666,667	0	0	0	185,505	10/15/2027	1.F PL
..60510M-B*-8	Mission Lane Credit Card Master Trust -		04/16/2024	CA_CASH_CLOSE		1,333,333	1,333,333	1,333,333	0	0	0	0	0	0	1,333,333	0	0	0	70,442	10/15/2027	3.A PL
..60937@-AA-8	MONICA HOLDCO (US) INC. - TERM LOAN		06/28/2024	CA_CASH_CLOSE		11,874	11,874	11,874	11,874	0	0	0	0	0	11,874	0	0	0	4,541	01/07/2028	2.C PL
..62900*-AB-7	NCWS INTERMEDIATE INC. - CLOSING DATE T		05/23/2024	CA_CASH_CLOSE		279,366	279,366	279,366	279,366	0	0	0	0	0	279,366	0	0	0	9,805	12/29/2026	3.A PL
..62903@-AA-4	NAW Buyer LLC - Term Loan		06/28/2024	CA_CASH_CLOSE		4,285	4,285	4,178	4,178	0	0	0	0	0	4,178	0	107	107	364	09/13/2029	4.C Z
..62907@-AA-0	NEFCO Holding Company, LLC - Term Loan		04/01/2024	CA_CASH_CLOSE		1,308	1,308	1,282	1,282	0	0	0	0	0	1,282	0	26	26	161	08/05/2028	3.B PL
..62907@-AF-9	NEFCO Holding Company LLC - 2023 Amendme		04/01/2024	CA_CASH_CLOSE		84	84	82	82	0	0	0	0	0	82	0	2	2	3	08/05/2028	4.C Z
..63086*-AA-3	Narda-MITEQ - Incremental Term Loan		04/18/2024	VARIOUS		813,700	813,700	799,460	799,486	0	0	0	0	0	799,486	0	14,213	14,213	51,367	12/06/2027	5.B GI
..65172*-AA-3	NEWPOINT JV SUB MM, LLC, - Term Loan Ser		04/15/2024	CA_CASH_CLOSE		500,000	500,000	500,000	500,000	0	0	0	0	0	500,000	0	0	0	9,959	01/08/2028	1.E PL
..65343@-AA-5	NEXT HOLDCO LLC CLOSING DT TERM LN		06/28/2024	CA_CASH_CLOSE		4,610	4,610	4,540	4,540	0	0	0	0	0	4,540	0	69	69	265	11/09/2030	3.B PL
..65658#-AA-2	NORTH HAVEN FALCON BUYER LLC - TERM LOA		05/22/2024	CA_CASH_CLOSE		708	708	708	708	0	0	0	0	0	708	0	0	0	90	05/19/2027	3.B PL
..65658#-AB-0	NORTH HAVEN FALCON BUYER LLC - DELAYED		04/04/2024	CA_CASH_CLOSE		236	236	236	236	0	0	0	0	0	236	0	0	0	21	05/19/2027	3.B PL
..65716*-AB-4	NORTH AMERICAN SCIENCE ASSOCIATES INC.		06/28/2024	CA_CASH_CLOSE		611	611	611	611	0	0	0	0	0	611	0	0	0	53	09/15/2027	2.C PL
..65716@-AA-4	NORTH AMERICAN SCIENCE ASSOCIATES INC.		06/28/2024	CA_CASH_CLOSE		1,926	1,926	1,926	1,926	0	0	0	0	0	1,926	0	0	0	141	09/15/2027	2.C PL
..65716@-AB-2	NORTH AMERICAN SCIENCE ASSOCIATES INC.		06/28/2024	CA_CASH_CLOSE		142	142	142	142	0	0	0	0	0	142	0	0	0	72	09/15/2027	2.C PL

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 4

Show All Long-Term Bonds and Stock Sold, Redeemed or Otherwise Disposed of During the Current Quarter

1	2	3	4	5	6	7	8	9	10	Change In Book/Adjusted Carrying Value					16	17	18	19	20	21	22
										11	12	13	14	15							
CUSIP Identification	Description	For- eign	Disposal Date	Name of Purchaser	Number of Shares of Stock	Consid- eration	Par Value	Actual Cost	Prior Year Book/ Adjusted Carrying Value	Unrealized Valuation Increase/ (Decrease)	Current Year's (Amor- tization)/ Accretion	Current Year's Other Than Temporary Impairment Recogn- ized	Total Change in Book/ Adjusted Carrying Value (11 + 12 - 13)	Total Foreign Exchange Change in Book /Adjusted Carrying Value	Book/ Adjusted Carrying Value at Disposal Date	Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal	Bond Interest/ Stock Dividends Received During Year	Stated Con- tractual Maturity Date	NAIC Desig- nation, NAIC Desig- nation Modifier and SVO Admini- strative Symbol
..66703*-AA-9	Northstar Recycling - Senior Term Loan		04/18/2024	VARIOUS		1,263,722	1,263,722	1,238,447	1,239,509	0	0	0	0	0	1,239,509	0	24,213	24,213	64,861	10/01/2027	4.B
..67008*-AA-9	NOVIPAK BUYER LLC INITIAL TERM LN		04/30/2024	CA_CASH_CLOSE		(1,481)	(1,481)	(1,481)	(1,481)	0	0	0	0	0	(1,481)	0	0	0	4,767	12/01/2026	3.C PL
..67100*-AA-2	OC III LVS XXVI LP - Secured Loan Facili		05/15/2024	CA_CASH_CLOSE		4,098,175	4,098,175	4,098,175	4,098,175	0	0	0	0	0	4,098,175	0	0	0	37,889	11/20/2030	1.F PL
..67115E-AC-4	Omega Holdings - Senior Term Loan		05/30/2024	CA_CASH_CLOSE		1,015	1,015	995	995	0	0	0	0	0	995	0	20	20	0	03/31/2029	4.C
..67117*-AA-7	OA BUYER INC INITIAL TERM LN		06/28/2024	CA_CASH_CLOSE		9,361	9,361	9,174	9,174	0	0	0	0	0	9,174	0	187	187	764	12/20/2028	4.C
..68144*-AB-6	Olympia Acquisition, Inc-2022 2nd Amendn		06/30/2024	CA_CASH_CLOSE		(1)	(1)	(1)	(1)	0	0	0	0	0	(1)	0	0	0	0	02/26/2027	4.C PL
..68687*-AA-3	ORO Funding I LLC - Term Loan		06/17/2024	CA_CASH_CLOSE		17,939	17,939	17,939	17,939	0	0	0	0	0	17,939	0	0	0	403	05/25/2029	1.E PL
..69429*-AA-4	PDQ (PDQ TOPCO LP) First Lien Term		06/28/2024	CA_CASH_CLOSE		11,093	11,093	11,093	11,093	0	0	0	0	0	11,093	0	0	0	1,877	08/27/2027	5.A
..69429*-AB-2	PDQ (PDQ TOPCO LP) DDTL		06/28/2024	CA_CASH_CLOSE		7,596	7,596	7,596	7,596	0	0	0	0	0	7,596	0	0	0	877	08/27/2027	5.A
..69451*-AA-7	PPW AERO BUYER INC INITIAL TERM LN		05/30/2024	CA_CASH_CLOSE		3,813	3,813	3,661	3,661	0	0	0	0	0	3,661	0	153	153	476	02/15/2029	5.B GI
..70559*-AA-4	Pegasus Global Enterprise Holdings LLC/		06/28/2024	CA_CASH_CLOSE		4,139	4,139	4,032	4,078	0	0	0	0	0	4,078	0	61	61	496	05/29/2025	3.A PL
..70559*-AB-2	Pegasus Global Enterprise Holdings LLC/		06/28/2024	CA_CASH_CLOSE		1,190	1,190	1,190	1,190	0	0	0	0	0	1,190	0	0	0	142	05/29/2025	3.A PL
..70559*-AD-8	Pegasus Global Enterprise Holdings LLC		06/28/2024	CA_CASH_CLOSE		1,196	1,196	1,196	1,196	0	0	0	0	0	1,196	0	0	0	253	05/29/2025	3.A PL
..70559*-AE-6	PEGASUS GLOBAL ENTERPRISE HOLDINGS LLC		06/28/2024	CA_CASH_CLOSE		1,120	1,120	1,120	1,120	0	0	0	0	0	1,120	0	0	0	234	05/29/2025	3.A PL
..70559*-AF-3	PEGASUS GLOBAL ENTERPRISE HOLDINGS LLC		06/28/2024	CA_CASH_CLOSE		519	519	519	519	0	0	0	0	0	519	0	0	0	17	05/29/2025	3.A PL
..71667*-AA-3	Petroleum Service Group LLC/Delayed Draw		04/03/2024	CA_CASH_CLOSE		53,183	53,183	53,183	53,183	0	0	0	0	0	53,183	0	0	0	10,126	07/23/2025	3.B PL
..71667*-AB-1	Petroleum Service Group LLC/Term Loan 7/		04/03/2024	CA_CASH_CLOSE		2,665,193	2,665,193	2,605,831	2,629,933	0	0	0	0	0	2,629,933	0	35,260	35,260	439,702	07/23/2025	3.B PL
..73103*-AA-9	Polara - Term Loan		06/28/2024	CA_CASH_CLOSE		90,844	90,844	89,027	89,036	0	0	0	0	0	89,036	0	1,807	1,807	8,182	12/03/2027	5.A
..73103*-AB-7	Polara - 2022 Incremental Term Loan		06/28/2024	CA_CASH_CLOSE		86,887	86,887	85,149	85,149	0	0	0	0	0	85,149	0	1,738	1,738	7,811	12/03/2027	5.A
..74066*-AA-4	PREMIER SPECIALTIES INC. - TERM LOAN		04/30/2024	CA_CASH_CLOSE		(739)	(739)	(739)	(739)	0	0	0	0	0	(739)	0	0	0	224	08/20/2027	3.A PL
..74276G-AC-0	Process Insights - Term Loan		06/30/2024	CA_CASH_CLOSE		1,139	1,139	1,111	1,111	0	0	0	0	0	1,111	0	28	28	126	06/30/2029	5.B GI
..74309*-AA-7	PRODUCTION RESOURCE GROUP L.L.C. - DELA		05/20/2024	CA_CASH_CLOSE		13,571	13,571	13,571	13,571	0	0	0	0	0	13,571	0	0	0	85	08/21/2024	4.C PL
..74309*-AB-5	PRG 9/20 Last Out		05/20/2024	CA_CASH_CLOSE		8,835	8,835	8,835	8,835	0	0	0	0	0	8,835	0	0	0	0	08/21/2024	4.C PL
..74309*-AC-3	PRODUCTION RESOURCE GROUP L.L.C. - DELA		05/30/2024	CA_CASH_CLOSE		763	763	763	763	0	0	0	0	0	763	0	0	0	0	08/21/2024	5.B GI
..74309*-AD-1	PRODUCTION RESOURCE GROUP L.L.C. - SECO		05/21/2024	CA_CASH_CLOSE		3,432	3,432	3,432	3,432	0	0	0	0	0	3,432	0	0	0	0	08/21/2024	5.B GI
..74588B-AB-6	Puma Buyer TL 2029		04/30/2024	CA_CASH_CLOSE		50,000	50,000	46,500	46,500	0	0	0	0	0	46,500	0	3,500	3,500	4,130	07/14/2029	4.B PL
..74923*-AB-3	RoadOne IntermodalLogistics - Term Loan		06/28/2024	CA_CASH_CLOSE		6,123	6,123	5,891	5,891	0	0	0	0	0	5,891	0	233	233	805	12/30/2028	4.B PL
..74923*-AC-1	R1 HLDGS LLC DELAYED DRAW TERM LN		06/28/2024	CA_CASH_CLOSE		555	555	555	555	0	0	0	0	0	555	0	0	0	48	12/30/2028	4.B PL
..74934*-AD-4	RCC REAL ESTATE SPE 9 LLC -Series 2023-3		04/22/2024	CA_CASH_CLOSE		69,828	69,828	69,828	69,828	0	0	0	0	0	69,828	0	0	0	2,155	06/29/2028	1.F Z
..75046T-AB-0	Radius Aerospace Inc-RADAER TL 1L USD		06/28/2024	CA_CASH_CLOSE		1,584	1,584	1,557	1,569	0	0	0	0	0	1,569	0	15	15	356	03/29/2025	3.C PL
..75279*-AA-4	RANDYS HLDGS INC INITIAL TERM LN		06/28/2024	CA_CASH_CLOSE		6,205	6,205	6,019	6,019	0	0	0	0	0	6,019	0	186	186	1,174	10/31/2024	3.B PL
..75279*-AB-2	RANDYS HLDGS INC DELAYED DRAW TERM LOAN		06/28/2024	CA_CASH_CLOSE		165	165	165	0	0	0	0	0	0	165	0	0	0	6	11/01/2028	4.C Z
..75445*-AA-1	RAWILINGS SPORTING GOODS COMPANY INC - T		06/28/2024	CA_CASH_CLOSE		2,117	2,117	2,117	2,117	0	0	0	0	0	2,117	0	0	0	765	12/31/2026	3.B PL
..75645*-AA-9	Red Cedar Holdings BLP CI A Ln		04/12/2024	CA_CASH_CLOSE		4,533,900	4,533,900	4,533,900	4,533,900	0	0	0	0	0	4,533,900	0	0	0	101,687	08/10/2030	1.D PL
..75734*-AB-9	Reddy Ice Holdings Inc./Term Loan 7/19		04/22/2024	CA_CASH_CLOSE		4,488,566	4,488,566	4,345,277	4,404,894	0	157	0	157	0	4,404,894	0	83,672	83,672	237,571	07/01/2025	3.C PL
..75734*-AC-7	Reddy Ice Holdings Inc./Delayed Draw Te		04/22/2024	CA_CASH_CLOSE		423,026	423,026	423,026	423,026	0	0	0	0	0	423,026	0	0	0	22,283	07/01/2025	3.C PL
..75988*-AA-6	RENOVATION ACQUISITION INC TERM LOAN		06/28/2024	CA_CASH_CLOSE		24,272	24,272	23,665	23,677	0	0	0	0	0	23,677	0	595	595	2,329	11/15/2027	4.C
..76028*-AA-4	REPAIRIFY INC. - INITIAL TERM LOAN		06/28/2024	CA_CASH_CLOSE		1,875	1,875	1,875	1,875	0	0	0	0	0	1,875	0	0	0	324	06/14/2027	2.A PL
..76252*-AA-1	Rialto Management Group LLC/Term Loan 1		04/19/2024	CA_CASH_CLOSE		(244,196)	(244,196)	(241,754)	(242,986)	0	(1,256)	0	(1,256)	0	(242,986)	0	(1,210)	(1,210)	5,020	12/02/2024	2.B PL
..76252*-AB-9	RIALTO MANAGEMENT GROUP LLC - TERM LOAN		04/19/2024	CA_CASH_CLOSE		12,116	12,116	12,116	12,116	0	0	0	0	0	12,116	0	0	0	746	12/02/2024	2.B PL
..77260*-AA-7	Rock Labor LLC - Term Loan		06/28/2024	CA_CASH_CLOSE		656	656	636	636	0	0	0	0	0	636	0	20	20	52	09/14/2029	4.C Z
..78013*-AA-5	ROYAL BUYER LLC INITIAL TERM LN		06/28/2024	CA_CASH_CLOSE		9,101	9,101	8,919	8,919	0	0	0	0	0	8,919	0	182	182	755	08/31/2028	5.B GI
..78029*-AE-9	ROYAL HOLDCO CORP 2023-2 INCREMENTAL TER		04/18/2024	VARIOUS		1,222,391	1,247,338	1,237,430	1,237,430	0	0	0	0	0	1,237,430	0	(15,038)	(15,038)	44,775	12/30/2026	4.C Z
..78432*-AB-8	SFE Intermediate HoldCo LLC/Incremental		06/28/2024	CA_CASH_CLOSE		909	909	891	901	0	0	0	0	0	901	0	8	8	409	07/31/2024	2.B PL
..78433*-AB-9	SG Acquisition Inc.(Safe-Guard)-Incremen		04/03/2024	CA_CASH_CLOSE		408,485	408,485	408,485	408,485	0	0	0	0	0	408,485	0	0	0	15,429	01/27/2027	4.A
..78459*-AA-8	SEI HLDG I CORP CLOSING DT TERM LOAN		04/18/2024	BANK LOANS BARINGS		2,032,019	2,011,900	1,941,483	1,941,483	0	0	0	0	0	1,941,483	0	90,535	90,535	122,802	03/27/2028	4.C Z

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE D - PART 4

Show All Long-Term Bonds and Stock Sold, Redeemed or Otherwise Disposed of During the Current Quarter

1	2	3	4	5	6	7	8	9	10	Change In Book/Adjusted Carrying Value					16	17	18	19	20	21	22
										11	12	13	14	15							
CUSIP Ident-ification	Description	For- eign	Disposal Date	Name of Purchaser	Number of Shares of Stock	Consid- eration	Par Value	Actual Cost	Prior Year Book/ Adjusted Carrying Value	Unrealized Valuation Increase/ (Decrease)	Current Year's (Amor- tization)/ Accretion	Current Year's Other Than Temporary Impairment Recogn- ized	Total Change in Book/ Adjusted Carrying Value (11 + 12 - 13)	Total Foreign Exchange Change in Book /Adjusted Carrying Value	Book/ Adjusted Carrying Value at Disposal Date	Foreign Exchange Gain (Loss) on Disposal	Realized Gain (Loss) on Disposal	Total Gain (Loss) on Disposal	Bond Interest/ Stock Dividends Received During Year	Stated Con- tractual Maturity Date	NAIC Desig- nation, NAIC Desig- nation Modifier and SVO Admini- strative Symbol
..G2757@-AB-8	Datix Bideo Limited/Term Loan B4 10/19	C.....	04/30/2024	CA_CASH_CLOSE		353,244	353,244	353,244	353,244	0	0	0	0	0	353,244	0	0	0	17,752	04/28/2025	3.B PL
..G3166*-AA-5	CIP VIII Holdings SPV L.P - Term Loan	C.....	04/19/2024	CA_CASH_CLOSE		1,112,266	1,112,266	1,112,266	1,112,266	0	0	0	0	0	1,112,266	0	0	0	44,080	12/14/2026	1.F PL
..G4288@-AC-0	HARBORVEST DOVER STR X INVT LP 2ND AME	C.....	06/30/2024	CA_CASH_CLOSE		90,620	90,620	90,620	90,620	0	0	0	0	0	90,620	0	0	0	0	01/05/2028	1.G PL
..G4701*-AA-1	IFM USIDF (INTERMEDIATE) B, L.P. - Secur	D.....	06/20/2024	CA_CASH_CLOSE		4,166,667	4,166,667	4,166,667	4,166,667	0	0	0	0	0	4,166,667	0	0	0	147,556	11/01/2035	1.G PL
..G5471*-AA-0	Lepton Fund Ltd. - Term Loan	D.....	04/15/2024	CA_CASH_CLOSE		25,000,000	25,000,000	25,153,647	25,152,508	0	0	0	0	0	25,152,508	0	(152,508)	(152,508)	1,119,420	05/07/2026	1.G PL
..G6684@-AA-9	OHA Credit Solutions Master Fund I SPV,	C.....	05/03/2024	CA_CASH_CLOSE		1,000,000	1,000,000	1,000,000	1,000,000	0	0	0	0	0	1,000,000	0	0	0	29,753	12/16/2032	1.F PL
..G7349*-AA-6	Radius Aerospace Europe Limited/U.K. Ter	C.....	06/28/2024	CA_CASH_CLOSE		2,033	2,033	2,033	2,033	0	0	0	0	0	2,033	0	0	0	365	03/29/2025	5.B GI
..G7741*-AA-6	STEPSTONE GROUP EUROPE ALTERNATIVE INVES	D.....	06/05/2024	CA_CASH_CLOSE		1,024,602	1,024,602	1,024,602	1,024,602	0	0	0	0	0	1,024,602	0	0	0	24,030	02/28/2034	1.E PL
..L0421*-AD-6	Auris Luxembourg III S.A EUR TLB1 (Jul'1	B.....	04/30/2024	BANK LOANS BARINGS		1,064,568	1,067,900	890,035	1,023,420	0	0	0	0	(133,385)	890,035	97,773	76,761	174,534	36,317	02/27/2026	4.C FE
..L5581@-AA-9	ION Trading Technologies EUR TLB (Mar'21	B.....	06/28/2024	CA_CASH_CLOSE		2,706	2,706	2,570	2,612	0	0	0	0	(43)	2,570	(39)	176	137	105	04/01/2028	5.B GI
..O8506*-AD-6	SIMULATION SOFTWARE INVT CO PTY LTD FACI	D.....	05/09/2024	CA_CASH_CLOSE		855,700	855,700	842,864	842,864	0	0	0	0	0	842,864	0	12,836	12,836	85,913	09/30/2025	4.C
..W8000*-AE-4	Samh-nllsbyggnadsbolaget i Norden AB - T	D.....	06/14/2024	BANK LOANS BARINGS		13,800,000	15,000,000	15,000,000	0	0	0	0	0	0	15,000,000	0	(1,200,000)	(1,200,000)	0	07/21/2027	4.A PL
..B6S16B-7K-0	WNEC Holdings II Corp .....	.....	04/02/2024	PRINCIPAL REPAYMENT		470	0	0	0	0	0	0	0	0	470	0	0	0	0	10/03/2028	4.C
1909999999. Subtotal - Bonds - Unaffiliated Bank Loans						284,574,406	293,151,321	292,040,833	191,080,318	0	(973)	0	(973)	(152,109)	284,892,093	111,920	(429,607)	(317,687)	9,542,106	XXX	XXX
2509999997. Total - Bonds - Part 4						1,570,722,785	1,593,213,265	1,575,997,402	1,466,332,156	142,051	6,023,799	(296,247)	6,462,097	(300,223)	1,585,983,773	223,550	(15,484,540)	(15,260,990)	49,587,840	XXX	XXX
2509999998. Total - Bonds - Part 5						XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2509999999. Total - Bonds						1,570,722,785	1,593,213,265	1,575,997,402	1,466,332,156	142,051	6,023,799	(296,247)	6,462,097	(300,223)	1,585,983,773	223,550	(15,484,540)	(15,260,990)	49,587,840	XXX	XXX
..857477-60-8	State Street Corp-PREFERRED STOCK .....	.....	05/30/2024	CALL 25	19,800,000	495,000	19,800.00	357,602	496,188	(138,586)	0	0	(138,586)	0	357,602	0	137,398	137,398	7,301	.....	2.A FE
4019999999. Subtotal - Preferred Stocks - Industrial and Miscellaneous (Unaffiliated) Perpetual Preferred						495,000	XXX	357,602	496,188	(138,586)	0	0	(138,586)	0	357,602	0	137,398	137,398	7,301	XXX	XXX
4509999997. Total - Preferred Stocks - Part 4						495,000	XXX	357,602	496,188	(138,586)	0	0	(138,586)	0	357,602	0	137,398	137,398	7,301	XXX	XXX
4509999998. Total - Preferred Stocks - Part 5						XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
4509999999. Total - Preferred Stocks						495,000	XXX	357,602	496,188	(138,586)	0	0	(138,586)	0	357,602	0	137,398	137,398	7,301	XXX	XXX
..12008@-10-7	BUILDERS FIRSTSOURCE INC-COMMON STOCK .....	.....	04/18/2024	BLOOMBERG TRADEBOOK	800,000	145,266	113,531	133,552	(20,021)	0	0	0	(20,021)	0	113,531	0	31,735	31,735	0	.....	.....
..14233@-10-0	CARLISLE COS INC-COMMON STOCK .....	.....	04/18/2024	BLOOMBERG TRADEBOOK	570,000	209,114	152,822	178,085	(25,263)	0	0	0	(25,263)	0	152,822	0	56,292	56,292	485	.....	.....
..29273V-10-0	ENERGY TRANSFER EQUITY L P LTD PARTNERSH .....	.....	06/06/2024	RILY	63,993,000	976,606	843,612	883,103	(39,491)	0	0	0	(39,491)	0	843,612	0	132,994	132,994	20,644	.....	.....
..60819@-10-4	MOHAWK INDUSTRIES INC-COMMON STOCK .....	.....	04/18/2024	BLOOMBERG TRADEBOOK	1,700,000	184,684	175,643	175,950	(307)	0	0	0	(307)	0	175,643	0	9,041	9,041	0	.....	.....
..67034@-10-5	NUCOR CORP-COMMON STOCK .....	.....	04/29/2024	BLOOMBERG TRADEBOOK	3,155,000	552,599	431,407	549,096	(117,689)	0	0	0	(117,689)	0	431,407	0	121,192	121,192	3,407	.....	.....
..67058H-10-2	NUSTAR ENERGY LP-COMMON STOCK LTD PART .....	.....	05/03/2024	MERGER	186,038,000	2,743,886	3,409,523	2,111,550	(317,517)	0	0	0	(317,517)	0	2,743,888	0	0	0	84,655	.....	.....
..723787-10-7	PIONEER NATURAL RESOURCE-COMMON STOCK .....	.....	05/03/2024	MERGER	500,000	113,744	113,744	112,440	1,304	0	0	0	1,304	0	113,744	0	0	0	1,280	.....	.....
..829073-10-5	Simpson Manufacturing Co-COMMON STOCK .....	.....	04/18/2024	BLOOMBERG TRADEBOOK	900,000	164,150	178,371	178,182	189	0	0	0	189	0	178,371	0	(14,221)	(14,221)	486	.....	.....
..87612@-10-1	TARGA RES CORP COMMON STK .....	.....	05/01/2024	VARIOUS	4,548,000	511,298	324,033	395,085	(71,052)	0	0	0	(71,052)	0	324,033	0	187,265	187,265	5,685	.....	.....
5019999999. Subtotal - Common Stocks - Industrial and Miscellaneous (Unaffiliated) Publicly Traded						5,601,347	XXX	5,742,686	4,717,043	(589,847)	0	0	(589,847)	0	5,077,051	0	524,298	524,298	116,642	XXX	XXX
5989999997. Total - Common Stocks - Part 4						5,601,347	XXX	5,742,686	4,717,043	(589,847)	0	0	(589,847)	0	5,077,051	0	524,298	524,298	116,642	XXX	XXX
5989999998. Total - Common Stocks - Part 5						XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
5989999999. Total - Common Stocks						5,601,347	XXX	5,742,686	4,717,043	(589,847)	0	0	(589,847)	0	5,077,051	0	524,298	524,298	116,642	XXX	XXX
5999999999. Total - Preferred and Common Stocks						6,096,347	XXX	6,100,288	5,213,231	(728,433)	0	0	(728,433)	0	5,434,653	0	661,696	661,696	123,943	XXX	XXX
6009999999 - Totals						1,576,819,132	XXX	1,582,997,690	1,471,545,387	(586,382)	6,023,799	(296,247)	5,733,664	(300,223)	1,591,418,426	223,550	(14,822,844)	(14,599,294)	49,711,783	XXX	XXX

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
0079999999. Subtotal - Purchased Options - Hedging Effective Excluding Variable Annuity Guarantees Under SSAP No.108										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0149999999. Subtotal - Purchased Options - Hedging Effective Variable Annuity Guarantees Under SSAP No.108										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
141932 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	04/06/2021	04/06/2028	2,560,103	4073.94000000	182,785	60,400	70,381	91,416		55,214				(29,826)			
141936 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	04/06/2021	04/06/2026	643,934	4073.94000000	44,408	14,655	17,306	22,198		17,311				(7,244)			
141931 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	04/20/2021	04/20/2028	2,131,255	4134.94000000	166,598	55,334	64,892	83,440		89,829				(27,224)			
141935 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	04/20/2021	04/20/2026	1,033,297	4134.94000000	75,627	24,990	28,092	37,790		35,573				(12,353)			
141929 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	05/06/2021	05/06/2026	2,934,227	4201.62000000	207,762	67,890	76,316	103,347		75,942				(34,462)			
141934 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	05/06/2021	05/06/2028	3,525,201	4201.62000000	272,205	89,247	99,539	135,658		72,626				(45,196)			
139414 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	05/20/2021	05/20/2026	3,238,121	4159.12000000	233,956	78,390	89,588	118,282		81,779				(38,803)			
141933 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	05/20/2021	05/19/2028	4,387,198	4159.12000000	347,178	117,072	134,261	176,266		89,265				(57,606)			
142030 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	06/04/2021	06/05/2026	3,793,322	4229.89000000	273,975	91,734	104,752	138,306		92,670				(45,495)			
142031 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	06/04/2021	06/06/2028	3,756,297	4229.89000000	293,447	98,537	111,053	148,401		68,595				(48,748)			
142042 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	06/18/2021	06/19/2026	4,246,800	4166.45000000	309,339	103,647	116,980	156,119		118,682				(51,405)			
142043 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	06/18/2021	06/20/2028	5,895,992	4166.45000000	470,057	158,509	179,802	238,382		182,575				(78,049)			
142044 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	07/06/2021	07/06/2026	4,766,527	4343.54000000	342,979		(57,355)	57,697		210,832				(57,355)			
142045 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	07/06/2021	07/06/2028	3,597,757	4343.54000000	273,908		(45,775)	46,138		166,999				(45,775)			
142024 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	E570DZIWZ7FF32TWEFA76	07/20/2021	07/20/2026	4,182,637	4323.06000000	291,144		(48,679)	48,916		183,498				(48,679)			
142025 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	E570DZIWZ7FF32TWEFA76	07/20/2021	07/20/2028	2,039,052	4323.06000000	148,573		(24,837)	24,971		89,951				(24,837)			
142046 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	08/06/2021	08/06/2026	4,064,101	4436.52000000	280,227		(46,899)	46,875		163,794				(46,899)			
142047 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	08/06/2021	08/04/2028	3,826,358	4436.52000000	286,658		(47,929)	48,069		163,586				(47,929)			
142048 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	E570DZIWZ7FF32TWEFA76	08/20/2021	08/20/2026	1,809,340	4441.67000000	123,509		(20,701)	20,537		64,787				(20,701)			
142049 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	E570DZIWZ7FF32TWEFA76	08/20/2021	08/18/2028	2,137,781	4441.67000000	164,799		(27,621)	27,403		87,674				(27,621)			
142050 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	09/03/2021	09/04/2026	1,540,167	4535.43000000	127,053		(21,267)	21,166		48,266				(21,267)			
142051 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	09/03/2021	09/06/2028	2,111,925	4535.43000000	180,586		(30,203)	30,156		62,258				(30,203)			
142217 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	09/20/2021	09/18/2026	1,174,913	4357.73000000	79,948		(13,384)	13,281		44,418				(13,384)			
142219 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	09/20/2021	09/20/2028	1,873,140	4357.73000000	136,949		(22,909)	22,811		73,409				(22,909)			
142231 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	10/06/2021	10/06/2026	1,802,792	4363.55000000	124,817		(20,893)	20,702		68,592				(20,893)			
142232 Call Options - S&P 500 - USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMPRO8K5P83	10/06/2021	10/06/2028	2,272,939	4363.55000000	175,701		(29,368)	29,292		94,913				(29,368)			

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
142242 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.10/20/2021	.10/20/2026	.....	.....2,142,631	..4536.19000000	151,478	.....	.....(25,359)	25,061	.....	.....72,349	.....	.....	.....(25,359)	.....	.....	.....	.....
142243 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.10/20/2021	.10/20/2028	.....	.....2,133,408	..4536.19000000	162,937	.....	.....(27,249)	27,067	.....	.....74,557	.....	.....	.....(27,249)	.....	.....	.....	.....
143735 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.11/05/2021	.11/06/2028	.....	.....3,225,894	..4697.53000000	236,840	.....	.....(39,612)	39,253	.....	.....127,033	.....	.....	.....(39,612)	.....	.....	.....	.....
143737 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.11/05/2021	.11/06/2026	.....	.....1,317,530	..4697.53000000	90,049	.....	.....(15,074)	14,872	.....	.....49,402	.....	.....	.....(15,074)	.....	.....	.....	.....
143909 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.11/19/2021	.11/20/2026	.....	.....1,146,967	..4697.96000000	78,046	.....	.....(13,066)	12,860	.....	.....41,404	.....	.....	.....(13,066)	.....	.....	.....	.....
143911 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.11/19/2021	.11/20/2028	.....	.....2,303,354	..4697.96000000	177,394	.....	.....(29,647)	29,449	.....	.....95,069	.....	.....	.....(29,647)	.....	.....	.....	.....
144235 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.12/06/2021	.12/04/2026	.....	.....729,148	..4591.67000000	49,819	.....	.....(8,342)	8,181	.....	.....23,635	.....	.....	.....(8,342)	.....	.....	.....	.....
144237 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.12/06/2021	.12/06/2028	.....	.....752,619	..4591.67000000	55,909	.....	.....(9,353)	9,222	.....	.....26,250	.....	.....	.....(9,353)	.....	.....	.....	.....
144701 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.12/20/2021	.12/18/2026	.....	.....1,060,073	..4568.02000000	72,432	.....	.....(12,128)	11,873	.....	.....35,498	.....	.....	.....(12,128)	.....	.....	.....	.....
144703 Call Options – S&P 500 – USD	Liability Hedge	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.12/20/2021	.12/20/2028	.....	.....1,687,120	..4568.02000000	130,889	.....	.....(21,882)	21,623	.....	.....61,038	.....	.....	.....(21,882)	.....	.....	.....	.....
145280 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.01/06/2022	.01/06/2027	.....	.....840,780	..4696.05000000	40,249	.....	.....19,939	20,554	.....	.....26,076	.....	.....	.....(9,785)	.....	.....	.....	.....
145291 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.01/06/2022	.01/05/2029	.....	.....2,075,217	..4696.05000000	109,154	.....	.....54,229	54,310	.....	.....59,921	.....	.....	.....(26,611)	.....	.....	.....	.....
145768 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.01/20/2022	.01/20/2027	.....	.....1,067,105	..4482.73000000	53,186	.....	.....26,401	27,701	.....	.....36,307	.....	.....	.....(12,978)	.....	.....	.....	.....
145772 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.01/20/2022	.01/19/2029	.....	.....2,284,303	..4482.73000000	130,052	.....	.....64,947	69,133	.....	.....85,827	.....	.....	.....(31,906)	.....	.....	.....	.....
146459 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.02/04/2022	.02/05/2027	.....	.....875,187	..4500.53000000	46,034	.....	.....22,908	24,293	.....	.....28,848	.....	.....	.....(11,277)	.....	.....	.....	.....
146461 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.02/04/2022	.02/06/2029	.....	.....2,205,498	..4500.53000000	122,524	.....	.....61,077	63,432	.....	.....72,963	.....	.....	.....(30,057)	.....	.....	.....	.....
147150 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.02/18/2022	.02/19/2027	.....	.....1,589,414	..4348.87000000	85,480	.....	.....42,558	44,389	.....	.....54,798	.....	.....	.....(20,980)	.....	.....	.....	.....
147153 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.02/18/2022	.02/20/2029	.....	.....2,507,570	..4348.87000000	139,306	.....	.....69,435	71,830	.....	.....80,879	.....	.....	.....(34,220)	.....	.....	.....	.....
147912 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.03/04/2022	.03/04/2027	.....	.....2,313,933	..4328.87000000	132,195	.....	.....66,011	69,567	.....	.....81,211	.....	.....	.....(32,558)	.....	.....	.....	.....
147914 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.03/04/2022	.03/02/2029	.....	.....3,147,487	..4328.87000000	190,357	.....	.....95,281	99,591	.....	.....105,161	.....	.....	.....(46,956)	.....	.....	.....	.....
148494 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.03/18/2022	.03/19/2027	.....	.....3,484,463	..4463.12000000	203,186	.....	.....101,363	100,327	.....	.....96,769	.....	.....	.....(50,080)	.....	.....	.....	.....
148496 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.03/18/2022	.03/20/2029	.....	.....2,690,653	..4463.12000000	164,848	.....	.....82,387	80,428	.....	.....61,642	.....	.....	.....(40,673)	.....	.....	.....	.....
149383 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.04/06/2022	.04/06/2029	.....	.....1,256,634	..4481.15000000	76,495	.....	.....38,234	37,775	.....	.....33,789	.....	.....	.....(18,906)	.....	.....	.....	.....
149385 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGFU57RNE97	.04/06/2022	.04/06/2027	.....	.....3,034,169	..4481.15000000	161,388	.....	.....80,480	89,949	.....	.....106,306	.....	.....	.....(39,844)	.....	.....	.....	.....
150021 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.04/20/2022	.04/20/2027	.....	.....3,978,366	..4459.45000000	247,661	.....	.....123,893	121,614	.....	.....99,341	.....	.....	.....(61,303)	.....	.....	.....	.....
150023 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPUBM8MPRO8K5P83	.04/20/2022	.04/20/2029	.....	.....2,397,649	..4459.45000000	150,675	.....	.....75,491	76,642	.....	.....60,531	.....	.....	.....(37,318)	.....	.....	.....	.....
150452 Call Options – S&P 500 – USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.05/06/2022	.05/06/2027	.....	.....2,560,850	..4123.34000000	155,622	.....	.....78,041	81,788	.....	.....65,977	.....	.....	.....(38,557)	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
150453 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.05/06/2022	.05/04/2029	.....	1,806,435	..4123.34000000	116,192	58,345	58,558	49,327	.....	48,124	.....	.....	.....(28,800)	.....	.....	.....	.....
151098 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.05/20/2022	.05/20/2027	.....	5,069,803	..3901.36000000	351,866	182,144	199,712	164,224	.....	200,833	.....	.....	.....(86,184)	.....	.....	.....	.....
151099 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.05/20/2022	.05/18/2029	.....	1,272,358	..3901.36000000	90,354	46,752	49,209	42,148	.....	41,191	.....	.....	.....(22,131)	.....	.....	.....	.....
151704 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.06/06/2022	.06/04/2027	.....	4,053,241	..4121.43000000	287,336	147,779	158,794	139,365	.....	153,483	.....	.....	.....(70,464)	.....	.....	.....	.....
151705 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.06/06/2022	.06/06/2029	.....	1,853,944	..4121.43000000	130,682	67,058	68,338	63,241	.....	52,352	.....	.....	.....(32,038)	.....	.....	.....	.....
153001 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.06/17/2022	.06/18/2027	.....	3,972,298	..3674.84000000	261,765	135,127	151,780	132,321	.....	124,795	.....	.....	.....(63,686)	.....	.....	.....	.....
153006 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.06/17/2022	.06/20/2029	.....	1,273,169	..3674.84000000	86,044	44,550	51,015	43,662	.....	41,564	.....	.....	.....(20,919)	.....	.....	.....	.....
153829 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.07/06/2022	.07/06/2029	.....	4,331,917	..3845.08000000	317,612	.....	.....(77,334)	5,047	.....	221,637	.....	.....	.....(77,334)	.....	.....	.....	.....
153837 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.07/06/2022	.07/06/2027	.....	4,143,069	..3845.08000000	293,781	.....	.....(71,511)	4,710	.....	239,170	.....	.....	.....(71,511)	.....	.....	.....	.....
154458 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.07/20/2022	.07/20/2027	.....	2,557,974	..3959.90000000	184,369	.....	.....(44,908)	6,473	.....	141,019	.....	.....	.....(44,908)	.....	.....	.....	.....
154462 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.07/20/2022	.07/20/2029	.....	1,734,536	..3959.90000000	128,937	.....	.....(31,393)	4,556	.....	84,200	.....	.....	.....(31,393)	.....	.....	.....	.....
155031 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.08/05/2022	.08/06/2029	.....	2,584,672	..4145.19000000	183,241	.....	.....(44,612)	10,546	.....	138,173	.....	.....	.....(44,612)	.....	.....	.....	.....
155103 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.08/05/2022	.08/06/2027	.....	1,336,139	..4145.19000000	97,484	.....	.....(23,721)	5,638	.....	74,767	.....	.....	.....(23,721)	.....	.....	.....	.....
155746 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.08/19/2022	.08/20/2027	.....	1,556,207	..4228.48000000	112,181	.....	.....(27,628)	7,913	.....	61,414	.....	.....	.....(27,628)	.....	.....	.....	.....
155753 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.08/19/2022	.08/20/2029	.....	1,396,739	..4228.48000000	103,203	.....	.....(25,417)	7,280	.....	32,255	.....	.....	.....(25,417)	.....	.....	.....	.....
156500 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.09/06/2022	.09/06/2027	.....	1,564,291	..3908.19000000	110,816	.....	.....(27,000)	11,248	.....	79,971	.....	.....	.....(27,000)	.....	.....	.....	.....
156505 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.09/06/2022	.09/06/2029	.....	987,646	..3908.19000000	73,017	.....	.....(17,778)	7,441	.....	78,779	.....	.....	.....(17,778)	.....	.....	.....	.....
156979 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.09/20/2022	.09/20/2027	.....	1,181,616	..3855.93000000	92,347	.....	.....(22,435)	11,326	.....	94,274	.....	.....	.....(22,435)	.....	.....	.....	.....
156984 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.09/20/2022	.09/20/2029	.....	908,253	..3855.93000000	71,167	.....	.....(17,289)	8,729	.....	77,600	.....	.....	.....(17,289)	.....	.....	.....	.....
158076 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.10/06/2022	.10/06/2027	.....	2,932,137	..3744.52000000	282,047	.....	.....(67,961)	42,291	.....	167,543	.....	.....	.....(67,961)	.....	.....	.....	.....
158083 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.10/06/2022	.10/05/2029	.....	2,188,606	..3744.52000000	222,688	.....	.....(53,534)	33,707	.....	84,314	.....	.....	.....(53,534)	.....	.....	.....	.....
158729 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.10/20/2022	.10/20/2027	.....	6,530,815	..3665.78000000	659,610	.....	.....(158,457)	113,105	.....	520,411	.....	.....	.....(158,457)	.....	.....	.....	.....
158732 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.10/20/2022	.10/19/2029	.....	3,668,206	..3665.78000000	382,590	.....	.....(91,896)	65,638	.....	134,944	.....	.....	.....(91,896)	.....	.....	.....	.....
159834 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.11/04/2022	.11/05/2027	.....	11,680,363	..3770.55000000	1,019,060	.....	.....(244,808)	196,219	.....	1,176,715	.....	.....	.....(244,808)	.....	.....	.....	.....
159838 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGGFU57RNE97	.11/04/2022	.11/06/2029	.....	7,664,623	..3770.55000000	708,308	.....	.....(170,092)	136,558	.....	781,316	.....	.....	.....(170,092)	.....	.....	.....	.....
160843 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.11/18/2022	.11/19/2027	.....	12,068,585	..3965.34000000	1,195,890	.....	.....(287,464)	253,300	.....	938,625	.....	.....	.....(287,464)	.....	.....	.....	.....
160847 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8MPRO8K5P83	.11/18/2022	.11/20/2029		7,589,428	..3965.34000000	781,510		(187,511)	166,495		584,292			(187,511)				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
161965 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	12/06/2022	12/06/2027	.....	8,250,589	..3941.26000000	804,247	.....	(193,267)	190,834	.....	710,799	.....	.....	.....(193,267)	.....	.....	.....	.....
161970 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	12/06/2022	12/06/2029	.....	10,495,862	..3941.26000000	1,078,741	.....	(258,802)	257,204	.....	1,053,939	.....	.....	.....(258,802)	.....	.....	.....	.....
162533 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	12/20/2022	12/20/2027	.....	6,695,471	..3821.62000000	659,185	.....	(158,490)	169,132	.....	512,460	.....	.....	.....(158,490)	.....	.....	.....	.....
162536 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	12/20/2022	12/20/2029	.....	10,151,085	..3821.62000000	1,043,108	.....	(250,301)	269,113	.....	776,278	.....	.....	.....(250,301)	.....	.....	.....	.....
163351 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	01/06/2023	01/06/2028	.....	11,272,223	..3895.08000000	516,268	541,593	653,430	284,824	.....	828,460	.....	.....	.....(265,256)	.....	.....	.....	.....
163356 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	01/06/2023	01/04/2030	.....	13,719,968	..3895.08000000	684,626	720,137	805,289	378,714	.....	829,130	.....	.....	.....(352,676)	.....	.....	.....	.....
163386 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	01/06/2023	07/05/2024	11	4,284,588	..3895.08000000	539,858	.....	(177,924)	6,972	.....	179,335	.....	.....	.....(177,924)	.....	.....	.....	.....
163922 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	01/20/2023	01/20/2028	.....	5,705,912	..3972.61000000	263,613	276,749	334,559	156,157	.....	402,415	.....	.....	.....(135,037)	.....	.....	.....	.....
163924 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	01/20/2023	01/18/2030	.....	18,090,591	..3972.61000000	891,866	939,596	1,099,296	530,162	.....	1,258,266	.....	.....	.....(458,304)	.....	.....	.....	.....
163954 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	01/20/2023	07/19/2024	.....	4,043,828	..3972.61000000	500,343	.....	(164,806)	19,386	.....	172,715	.....	.....	.....(164,806)	.....	.....	.....	.....
164600 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	02/06/2023	02/04/2028	.....	5,580,626	..4111.08000000	257,825	270,297	319,588	165,106	.....	356,014	.....	.....	.....(131,327)	.....	.....	.....	.....
164603 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	02/06/2023	02/06/2030	.....	20,840,541	..4111.08000000	1,025,355	1,079,134	1,247,531	659,159	.....	1,217,658	.....	.....	.....(523,915)	.....	.....	.....	.....
164628 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A. B4TYDEB6KMZ0031MB27	02/06/2023	08/06/2024	.....	6,804,276	..4111.08000000	819,228	.....	(269,367)	58,624	.....	270,631	.....	.....	.....(269,367)	.....	.....	.....	.....
165236 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	02/17/2023	08/20/2024	17	6,934,453	..4079.09000000	835,601	.....	(272,880)	81,111	.....	262,697	.....	.....	.....(272,880)	.....	.....	.....	.....
165308 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	02/17/2023	02/18/2028	.....	8,592,432	..4079.09000000	391,815	409,629	469,898	262,563	.....	529,243	.....	.....	.....(198,593)	.....	.....	.....	.....
165310 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	02/17/2023	02/20/2030	.....	16,958,688	..4079.09000000	827,584	869,947	998,266	557,604	.....	1,006,691	.....	.....	.....(421,177)	.....	.....	.....	.....
165834 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	03/06/2023	09/06/2024	11	4,453,262	..4048.42000000	498,762	.....	(163,116)	63,594	.....	135,992	.....	.....	.....(163,116)	.....	.....	.....	.....
165863 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	03/06/2023	03/06/2028	.....	9,177,411	..4048.42000000	431,338	452,539	530,664	311,140	.....	598,815	.....	.....	.....(218,213)	.....	.....	.....	.....
165865 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	03/06/2023	03/06/2030	.....	13,812,465	..4048.42000000	661,617	693,367	776,055	476,721	.....	642,144	.....	.....	.....(334,468)	.....	.....	.....	.....
166386 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	03/20/2023	03/20/2028	.....	10,912,967	..3951.57000000	538,009	568,681	706,560	412,794	.....	660,007	.....	.....	.....(272,333)	.....	.....	.....	.....
166390 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	03/20/2023	03/20/2030	.....	13,135,985	..3951.57000000	650,231	685,913	820,645	497,894	.....	988,375	.....	.....	.....(328,754)	.....	.....	.....	.....
166443 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	03/20/2023	09/20/2024	12	4,741,884	..3951.57000000	401,640	.....	(131,334)	61,453	.....	131,855	.....	.....	.....(131,334)	.....	.....	.....	.....
167376 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8MPRO8K5P83	04/06/2023	10/04/2024	.....	3,676,167	..4105.02000000	433,677	.....	(141,992)	78,414	.....	98,654	.....	.....	.....(141,992)	.....	.....	.....	.....
167410 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	04/06/2023	04/06/2028	.....	17,613,170	..4105.02000000	864,807	913,857	1,139,218	705,914	.....	1,084,608	.....	.....	.....(435,399)	.....	.....	.....	.....
167414 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	04/06/2023	04/05/2030	.....	19,509,223	..4105.02000000	963,756	1,016,922	1,228,038	785,531	.....	1,072,939	.....	.....	.....(484,872)	.....	.....	.....	.....
167991 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	04/20/2023	04/20/2028	.....	15,613,951	..4129.79000000	757,277	798,024	969,854	647,053	.....	1,027,028	.....	.....	.....(379,191)	.....	.....	.....	.....
167995 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIVZ7FF32TWEFA76	04/20/2023	04/18/2030	.....	14,700,848	..4129.79000000	721,812	760,581	907,264	616,694	.....	887,410	.....	.....	.....(361,420)	.....	.....	.....	.....
168016 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	04/20/2023	10/18/2024	9	3,716,811	..4129.79000000	422,226		(138,783)	86,610		83,866			(138,783)				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
170976 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZFF32WIEFA76	.05/05/2023	.05/05/2028	.....	15,646,372	..4136.25000000	765,108	806,870	982,854	687,383	.....	.....923,604	.....	.....	.....(381,510)	.....	.....	.....	.....
170979 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.05/05/2023	.05/06/2030	.....	15,930,319	..4136.25000000	767,841	807,742	963,542	688,131	.....	.....904,789	.....	.....	.....(382,570)	.....	.....	.....	.....
171015 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/05/2023	.11/06/2024	9	3,722,625	..4136.25000000	418,419	.....	.....(136,144)	100,024	.....	.....95,288	.....	.....	.....(136,144)	.....	.....	.....	.....
171609 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZFF32WIEFA76	.05/19/2023	.05/20/2030	.....	20,432,234	..4191.98000000	974,618	1,023,562	1,206,285	911,257	.....	.....935,643	.....	.....	.....(483,461)	.....	.....	.....	.....
171636 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.05/19/2023	.11/20/2024	.....	2,088,258	..4191.98000000	243,742	.....	.....(79,156)	64,612	.....	.....58,046	.....	.....	.....(79,156)	.....	.....	.....	.....
171734 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZFF32WIEFA76	.05/19/2023	.05/19/2028	.....	15,669,739	..4191.98000000	756,848	796,105	946,950	708,753	.....	.....793,854	.....	.....	.....(375,576)	.....	.....	.....	.....
172334 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZFF32WIEFA76	.06/06/2023	.06/06/2028	.....	19,270,434	..4283.85000000	920,163	966,730	1,147,181	908,334	.....	.....927,323	.....	.....	.....(454,192)	.....	.....	.....	.....
172337 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.06/06/2023	.06/06/2030	.....	17,649,477	..4283.85000000	831,290	871,424	1,014,110	818,790	.....	.....789,376	.....	.....	.....(410,203)	.....	.....	.....	.....
172357 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.06/06/2023	.12/06/2024	10	4,283,850	..4283.85000000	472,080	.....	.....(154,528)	138,695	.....	.....106,215	.....	.....	.....(154,528)	.....	.....	.....	.....
172868 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.06/20/2023	.06/20/2028	.....	17,848,623	..4388.71000000	846,025	887,362	1,035,174	867,800	.....	.....788,572	.....	.....	.....(415,919)	.....	.....	.....	.....
172870 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZFF32WIEFA76	.06/20/2023	.06/20/2030	.....	9,849,798	..4388.71000000	459,001	480,894	563,330	470,293	.....	.....372,251	.....	.....	.....(225,639)	.....	.....	.....	.....
172889 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.06/20/2023	.12/20/2024	8	3,510,968	..4388.71000000	390,416	.....	.....(127,778)	124,677	.....	.....99,895	.....	.....	.....(127,778)	.....	.....	.....	.....
173429 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXT09	.07/06/2023	.07/05/2024	.....	53,459,892	..1242.07000000	3,715,463	.....	.....(1,831,493)	72,045	.....	.....10,133,386	.....	.....	.....(1,831,493)	.....	.....	.....	.....
173431 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCEMIK50	.07/06/2023	.07/05/2024	.....	11,358,299	..509.30000000	749,648	.....	.....(369,530)	14,536	.....	.....309,933	.....	.....	.....(369,530)	.....	.....	.....	.....
173433 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.07/06/2023	.07/05/2024	.....	35,320,558	..4411.59000000	3,154,126	.....	.....(1,554,789)	61,160	.....	.....1,170,325	.....	.....	.....(1,554,789)	.....	.....	.....	.....
173450 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.07/06/2023	.07/05/2024	.....	40,238,615	..4411.59000000	3,593,308	.....	.....(1,771,279)	69,676	.....	.....1,586,348	.....	.....	.....(1,771,279)	.....	.....	.....	.....
173462 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RHI G C71XBU11	.07/06/2023	.07/05/2024	.....	32,100,705	..4411.59000000	2,824,862	.....	.....(1,392,482)	54,776	.....	.....1,367,949	.....	.....	.....(1,392,482)	.....	.....	.....	.....
173478 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSPU8MPRO8K5P83	.07/06/2023	.07/05/2024	.....	64,052,663	..4411.59000000	5,718,622	.....	.....(2,818,927)	110,887	.....	.....2,748,913	.....	.....	.....(2,818,927)	.....	.....	.....	.....
173482 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RHI G C71XBU11	.07/06/2023	.07/05/2024	.....	46,418,338	..4411.59000000	4,084,814	.....	.....(2,013,561)	79,207	.....	.....2,200,481	.....	.....	.....(2,013,561)	.....	.....	.....	.....
173493 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RHI G C71XBU11	.07/06/2023	.07/05/2024	.....	58,191,264	..4411.59000000	5,120,831	.....	.....(2,524,253)	99,296	.....	.....3,275,374	.....	.....	.....(2,524,253)	.....	.....	.....	.....
173500 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	GOLDMAN SACHS INTERNATIONAL W22LROWP21HZNB6K528	.07/06/2023	.07/05/2024	.....	51,691,277	..177.31000000	4,300,075	.....	.....(2,119,671)	83,381	.....	.....3,518,332	.....	.....	.....(2,119,671)	.....	.....	.....	.....
173508 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RHI G C71XBU11	.07/06/2023	.07/05/2024	.....	52,068,401	..4411.59000000	4,582,019	.....	.....(2,258,652)	88,848	.....	.....3,341,327	.....	.....	.....(2,258,652)	.....	.....	.....	.....
173514 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	GOLDMAN SACHS INTERNATIONAL W22LROWP21HZNB6K528	.07/06/2023	.07/05/2024	.....	25,582,286	..86.88000000	2,155,414	.....	.....(1,062,486)	41,795	.....	.....375,177	.....	.....	.....(1,062,486)	.....	.....	.....	.....
173518 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A. B4TYDEB6GKMZ0031MB27	.07/06/2023	.07/05/2024	.....	89,247,208	..4411.59000000	7,907,303	.....	.....(3,897,811)	153,327	.....	.....6,832,024	.....	.....	.....(3,897,811)	.....	.....	.....	.....
173530 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A. B4TYDEB6GKMZ0031MB27	.07/06/2023	.07/05/2024	.....	59,171,224	..4411.59000000	5,242,570	.....	.....(2,584,263)	101,656	.....	.....5,214,865	.....	.....	.....(2,584,263)	.....	.....	.....	.....
173538 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXT09	.07/06/2023	.07/05/2024		17,545,575	..4411.59000000	587,777		(289,738)	11,397		2,036,523			(289,738)				

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173539 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.07/06/2023	.07/06/2028		16,509,643	..4411.59000000	789,161		(389,175)	15,135		1,164,761			(389,175)				
173541 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.07/06/2023	.07/05/2030	.....	14,571,363	..4411.59000000	690,683	.....	.....(340,611)	13,246	.....	950,568	.....	.....	.....(340,611)	.....	.....	.....	.....
173543 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.07/06/2023	.01/06/2025	9	3,970,431	..4411.59000000	447,867	.....	.....(146,290)	156,631	.....	89,609	.....	.....	.....(146,290)	.....	.....	.....	.....
173552 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUISFPUB8MPRO8K5P83	.07/06/2023	.07/05/2024	.....	92,074,134	..4411.59000000	8,222,220	.....	.....(4,053,046)	159,434	.....	1,837,893	.....	.....	.....(4,053,046)	.....	.....	.....	.....
173555 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.07/06/2023	.07/05/2024	389	2,737,328	..70.37000000	193,717	.....	.....(95,522)	3,725	.....	187,902	.....	.....	.....(95,522)	.....	.....	.....	.....
173556 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUISFPUB8MPRO8K5P83	.07/06/2023	.07/05/2024	.....	73,279,913	..4411.59000000	6,543,896	.....	.....(3,225,736)	126,890	.....	1,470,035	.....	.....	.....(3,225,736)	.....	.....	.....	.....
173566 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RH1GCT1XBU11	.07/06/2023	.07/05/2024	.....	28,000,413	..4411.59000000	1,346,820	.....	.....(663,899)	26,116	.....	760,401	.....	.....	.....(663,899)	.....	.....	.....	.....
173838 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXTO9	.07/14/2023	.07/12/2024	.....	1,393,454	..4471.78914150	76,578	.....	.....(37,836)	2,978	.....	131,749	.....	.....	.....(37,836)	.....	.....	.....	.....
174110 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUISFPUB8MPRO8K5P83	.07/20/2023	.07/19/2024	.....	75,164,825	..4534.87000000	6,485,973	.....	.....(3,194,427)	377,300	.....	1,674,925	.....	.....	.....(3,194,427)	.....	.....	.....	.....
174116 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	58,890,728	..4534.87000000	5,055,281	.....	.....(2,489,793)	294,075	.....	2,430,915	.....	.....	.....(2,489,793)	.....	.....	.....	.....
174135 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	54,369,681	..4534.87000000	4,667,695	.....	.....(2,298,901)	271,528	.....	2,503,508	.....	.....	.....(2,298,901)	.....	.....	.....	.....
174150 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	49,321,405	..4534.87000000	4,233,871	.....	.....(2,085,237)	246,292	.....	2,726,660	.....	.....	.....(2,085,237)	.....	.....	.....	.....
174153 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	51,657,563	..4534.87000000	4,434,871	.....	.....(2,184,232)	257,984	.....	3,460,661	.....	.....	.....(2,184,232)	.....	.....	.....	.....
174156 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	50,863,709	..4534.87000000	4,368,563	.....	.....(2,151,575)	254,127	.....	4,092,947	.....	.....	.....(2,151,575)	.....	.....	.....	.....
174160 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A. B4TYDEB6GKMZ0031MB27	.07/20/2023	.07/19/2024	.....	31,135,872	..4534.87000000	2,581,158	.....	.....(1,271,254)	150,150	.....	3,024,048	.....	.....	.....(1,271,254)	.....	.....	.....	.....
174161 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCEMIK50	.07/20/2023	.07/19/2024	.....	20,517,215	..88.73000000	1,764,485	.....	.....(869,032)	102,643	.....	190,111	.....	.....	.....(869,032)	.....	.....	.....	.....
174170 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUISFPUB8MPRO8K5P83	.07/20/2023	.07/19/2024	.....	85,929,753	..4534.87000000	7,414,878	.....	.....(3,651,925)	431,336	.....	1,684,043	.....	.....	.....(3,651,925)	.....	.....	.....	.....
174172 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.07/20/2023	.07/20/2028	.....	10,400,394	..4534.87000000	.....	.....	.....(473,437)	28,902	.....	768,044	.....	.....502,339	(473,437)	.....	.....	.....	.....
174176 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.07/20/2023	.07/19/2030	.....	12,993,512	..4534.87000000	.....	.....	.....(601,276)	36,706	.....	934,159	.....	.....637,981	(601,276)	.....	.....	.....	.....
174179 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXTO9	.07/20/2023	.07/19/2024	.....	24,291,529	..4534.87000000	1,146,560	.....	.....(564,696)	66,697	.....	668,349	.....	.....	.....(564,696)	.....	.....	.....	.....
174181 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXTO9	.07/20/2023	.07/19/2024	.....	13,086,849	..4534.87000000	.....	.....	.....(395,651)	24,437	.....	173,954	.....	.....420,088	(395,651)	.....	.....	.....	.....
174182 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.07/20/2023	.01/17/2025	8	3,549,896	..4534.87000000	383,032	.....	.....(125,783)	142,409	.....	84,608	.....	.....	.....(125,783)	.....	.....	.....	.....
174183 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.07/20/2023	.07/19/2024	2,123	38,795,702	..182.74000000	3,184,500	.....	.....(1,569,935)	183,721	.....	2,582,566	.....	.....	.....(1,569,935)	.....	.....	.....	.....
174188 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.07/20/2023	.07/19/2024	338	2,495,454	..73.83000000	166,972	.....	.....(82,316)	9,633	.....	128,785	.....	.....	.....(82,316)	.....	.....	.....	.....
174196 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.07/20/2023	.07/19/2024	103	46,709,161	..4534.87000000	3,839,531	.....	.....(1,892,860)	221,511	.....	1,692,169	.....	.....	.....(1,892,860)	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
174198 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	07/20/2023	07/19/2024		40,365,295	1273.42000000	2,777,132		(1,367,774)	161,551		6,543,009			(1,367,774)				
174199 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	07/20/2023	07/19/2024		8,188,697	519.60000000	540,454		(266,181)	31,439		110,980			(266,181)				
174676 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	2,426	43,705,560	180.19000000	3,565,524		(1,740,900)	380,974		2,826,078			(1,740,900)				
174686 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	2,458	21,075,524	85.75000000	1,649,175		(805,225)	176,213		659,768			(805,225)				
174697 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	02/06/2025	11	4,925,833	4478.03000000	548,735		(177,724)	222,892		122,438			(177,724)				
174705 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	113	50,472,548	4478.03000000	4,305,354		(2,102,129)	460,024		1,583,657			(2,102,129)				
174713 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	08/04/2023	08/06/2024		45,819,727	1257.07000000	3,198,217		(1,560,621)	342,666		8,224,176			(1,560,621)				
174714 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	105	47,087,381	4478.03000000	4,016,596		(1,961,141)	429,171		1,751,996			(1,961,141)				
174715 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	08/04/2023	08/06/2024		10,625,339	517.99000000	699,147		(341,160)	74,909		204,474			(341,160)				
174724 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	109	48,732,430	4478.03000000	4,156,920		(2,029,655)	444,164		1,981,808			(2,029,655)				
174734 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	103	46,123,709	4478.03000000	3,934,394		(1,921,005)	420,387		2,016,958			(1,921,005)				
174740 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	105	46,916,679	4478.03000000	4,002,035		(1,954,031)	427,615		2,241,645			(1,954,031)				
174753 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	103	46,290,605	4478.03000000	3,948,630		(1,927,956)	421,908		2,677,850			(1,927,956)				
174762 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	118	52,758,358	4478.03000000	4,500,336		(2,197,331)	480,858		3,588,364			(2,197,331)				
174771 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	111	49,706,133	4478.03000000	4,239,978		(2,070,209)	453,039		4,021,198			(2,070,209)				
174774 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	08/04/2023	08/06/2024	68	30,450,604	4478.03000000	2,597,464		(1,268,236)	277,537		2,958,964			(1,268,236)				
174777 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	08/04/2023	08/04/2028		18,175,824	4478.03000000	885,163		(436,519)	87,304		1,303,157			(436,519)				
174779 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	08/04/2023	08/06/2030		12,413,995	4478.03000000	615,734		(303,650)	60,730		874,552			(303,650)				
174782 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	08/04/2023	08/06/2024		16,420,632	4478.03000000	525,460		(256,407)	56,299		1,533,971			(256,407)				
174789 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	08/04/2023	08/06/2024		2,434,010	72.16000000	197,269		(96,261)	21,136		142,419			(96,261)				
174799 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	08/04/2023	08/06/2024		89,894,379	4478.03000000	8,061,728		(3,933,848)	863,757		1,753,519			(3,933,848)				
174818 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	08/04/2023	08/06/2024		70,805,946	4478.03000000	6,349,877		(3,098,523)	680,344		1,444,238			(3,098,523)				
174823 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	08/04/2023	08/06/2024		32,284,068	4478.03000000	1,481,041		(722,697)	158,683		895,827			(722,697)				
175024 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	08/11/2023	08/11/2024		1,278,375	4469.21784133	62,197		(30,506)	7,560		140,983			(30,506)				

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
175304 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	.08/18/2023	.08/20/2024	.....	35,259,793	1226.67000000	2,464,660		(1,201,639)	358,865		7,403,013			(1,201,639)				
175305 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCMIK50	.08/18/2023	.08/20/2024	.....	7,360,918	508.53000000	485,821		(236,861)	70,738		274,607			(236,861)				
175351 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U8RHIGC71XBU11	.08/18/2023	.08/20/2024	.....	2,002,777	69.84000000	172,639		(84,170)	25,137		146,274			(84,170)				
175362 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.08/18/2023	.08/18/2028	.....	22,097,696	4369.71000000	1,082,787		(533,977)	148,327		1,602,644			(533,977)				
175364 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.08/18/2023	.08/20/2030	.....	14,097,552	4369.71000000	696,419		(343,440)	95,400		960,781			(343,440)				
175372 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	141	61,455,820	4369.71000000	5,574,005		(2,719,817)	809,376		2,540,271			(2,719,817)				
175384 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	111	48,503,781	4369.71000000	4,399,263		(2,146,606)	638,797		2,305,883			(2,146,606)				
175385 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.08/18/2023	.08/20/2024	.....	26,255,234	4369.71000000	1,308,609		(638,010)	190,539		716,610			(638,010)				
175387 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	120	52,496,691	4369.71000000	4,761,417		(2,323,318)	691,384		3,089,620			(2,323,318)				
175399 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.08/18/2023	.08/20/2024	.....	13,952,290	4369.71000000	435,311		(212,235)	63,383		701,900			(212,235)				
175400 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	114	49,769,249	4367.71000000	4,514,040		(2,202,611)	655,463		3,740,300			(2,202,611)				
175404 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	1,808	31,693,243	175.33000000	2,563,225		(1,250,717)	372,194		2,102,206			(1,250,717)				
175408 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	116	50,688,636	4369.71000000	4,597,428		(2,243,300)	667,572		4,890,081			(2,243,300)				
175419 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	2,062	17,145,389	83.13000000	1,383,923		(675,281)	200,953		752,661			(675,281)				
175426 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.02/20/2025	9	3,932,739	4369.71000000	458,955		(148,582)	198,128		94,446			(148,582)				
175432 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	158	69,041,418	4369.71000000	6,262,014		(3,055,529)	909,279		1,342,482			(3,055,529)				
175434 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	143	62,486,853	4369.71000000	5,667,519		(2,765,447)	822,955		1,301,369			(2,765,447)				
175438 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.08/18/2023	.08/20/2024	141	61,634,148	4369.71000000	5,590,179		(2,725,479)	813,955		2,122,546			(2,725,479)				
175910 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	2,069	36,786,381	177.83000000	2,982,959		(1,465,466)	572,074		2,420,210			(1,465,466)				
175967 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	2,363	19,890,491	84.16000000	1,536,219		(754,713)	294,617		765,415			(754,713)				
175973 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	219	1,548,938	70.72000000	107,979		(53,048)	20,708		91,208			(53,048)				
175981 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.03/06/2025	9	4,018,932	4465.48000000	450,117		(147,741)	206,922		108,052			(147,741)				
175985 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	159	71,001,132	4465.48000000	6,283,521		(3,086,964)	1,205,059		1,362,884			(3,086,964)				
175989 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	152	67,875,296	4465.48000000	6,006,888		(2,951,060)	1,152,006		1,369,295			(2,951,060)				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
175992 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	81	36,170,388	..4465.48000000	3,201,039	.....	.....(1,572,604)	613,898	.....	.....1,107,750	.....	.....	.....(1,572,604)	.....	.....	.....	.....
175997 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	112	50,069,195	..4465.48000000	4,431,068	.....	.....(2,176,892)	849,794	.....	.....1,875,241	.....	.....	.....(2,176,892)	.....	.....	.....	.....
176006 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	112	49,838,329	..4465.48000000	4,410,637	.....	.....(2,166,854)	845,876	.....	.....2,046,294	.....	.....	.....(2,166,854)	.....	.....	.....	.....
176014 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	107	47,656,406	..4465.48000000	4,217,539	.....	.....(2,071,989)	808,843	.....	.....2,119,090	.....	.....	.....(2,071,989)	.....	.....	.....	.....
176024 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	105	46,846,547	..4465.48000000	4,145,867	.....	.....(2,036,779)	795,098	.....	.....2,392,779	.....	.....	.....(2,036,779)	.....	.....	.....	.....
176036 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	112	49,826,183	..4465.48000000	4,409,562	.....	.....(2,166,326)	845,669	.....	.....3,047,728	.....	.....	.....(2,166,326)	.....	.....	.....	.....
176040 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMVCMCJXT09	.09/06/2023	.09/06/2024	.....	.....44,820,899	..1251.62000000	3,146,427	.....	.....(1,544,117)	605,082	.....	.....8,464,868	.....	.....	.....(1,544,117)	.....	.....	.....	.....
176042 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L10CEMIK50	.09/06/2023	.09/06/2024	.....	.....9,627,469	..505.07000000	637,338	.....	.....(312,775)	122,565	.....	.....448,320	.....	.....	.....(312,775)	.....	.....	.....	.....
176046 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	115	51,543,964	..4465.48000000	4,561,583	.....	.....(2,241,011)	874,824	.....	.....3,804,921	.....	.....	.....(2,241,011)	.....	.....	.....	.....
176053 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	94	41,975,512	..4465.48000000	3,714,786	.....	.....(1,824,997)	712,425	.....	.....3,727,778	.....	.....	.....(1,824,997)	.....	.....	.....	.....
176056 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/06/2023	.09/06/2024	84	37,510,032	..4465.48000000	3,319,596	.....	.....(1,630,849)	636,635	.....	.....3,995,490	.....	.....	.....(1,630,849)	.....	.....	.....	.....
176065 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RH1GC71XBU11	.09/06/2023	.09/06/2024	.....	.....29,235,625	..4465.48000000	1,420,851	.....	.....(697,286)	273,241	.....	.....841,501	.....	.....	.....(697,286)	.....	.....	.....	.....
176069 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC 4PQUH3JPFGNF3BB653	.09/06/2023	.09/06/2024	.....	.....17,112,153	..4465.48000000	586,947	.....	.....(288,046)	112,874	.....	.....1,847,940	.....	.....	.....(288,046)	.....	.....	.....	.....
176071 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.09/06/2023	.09/06/2028	.....	.....17,149,201	..4465.48000000	874,609	.....	.....(431,314)	165,337	.....	.....1,281,177	.....	.....	.....(431,314)	.....	.....	.....	.....
176074 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.09/06/2023	.09/06/2030	.....	.....18,278,088	..4465.48000000	939,494	.....	.....(463,312)	177,603	.....	.....1,303,673	.....	.....	.....(463,312)	.....	.....	.....	.....
176415 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUWSFPUMPR08K5P83	.09/15/2023	.09/15/2024	.....	.....705,893	..4465.13073992	35,049	.....	.....(17,153)	7,649	.....	.....93,517	.....	.....	.....(17,153)	.....	.....	.....	.....
176715 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	1,743	31,259,701	..179.35000000	2,459,294	.....	.....(1,207,942)	565,975	.....	.....2,037,990	.....	.....	.....(1,207,942)	.....	.....	.....	.....
176721 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	2,178	18,214,000	..83.63000000	1,374,272	.....	.....(675,007)	316,271	.....	.....739,341	.....	.....	.....(675,007)	.....	.....	.....	.....
176728 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	161	1,146,091	..71.02000000	80,527	.....	.....(39,553)	18,532	.....	.....65,967	.....	.....	.....(39,553)	.....	.....	.....	.....
176735 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.03/20/2025	14	6,163,080	..4402.20000000	687,190	.....	.....(225,522)	333,526	.....	.....136,206	.....	.....	.....(225,522)	.....	.....	.....	.....
176739 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	145	63,831,900	..4402.20000000	5,438,515	.....	.....(2,671,260)	1,251,603	.....	.....1,220,400	.....	.....	.....(2,671,260)	.....	.....	.....	.....
176745 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	141	62,071,020	..4402.20000000	5,288,487	.....	.....(2,597,570)	1,217,076	.....	.....1,247,297	.....	.....	.....(2,597,570)	.....	.....	.....	.....
176748 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	122	53,706,840	..4402.20000000	4,575,854	.....	.....(2,247,543)	1,053,073	.....	.....1,748,014	.....	.....	.....(2,247,543)	.....	.....	.....	.....
176755 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	123	54,335,122	..4402.20000000	4,629,384	.....	.....(2,273,835)	1,065,392	.....	.....2,127,181	.....	.....	.....(2,273,835)	.....	.....	.....	.....
176766 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	104	45,818,714	..4402.20000000	3,903,781		(1,917,438)	898,404		1,980,577			(1,917,438)				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
176774 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	 111	 48,712,940	.. 4402.20000000	 4,150,371	.....	..... (2,038,556)	 955,154	.....	..... 2,629,154	.....	.....	..... (2,038,556)	.....	.....	.....	.....
176780 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	 106	 46,444,971	.. 4402.20000000	 3,957,139	.....	..... (1,943,645)	 910,684	.....	..... 3,094,002	.....	.....	..... (1,943,645)	.....	.....	.....	.....
176786 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	 111	 48,864,420	.. 4402.20000000	 4,163,277	.....	..... (2,044,895)	 958,124	.....	..... 4,295,639	.....	.....	..... (2,044,895)	.....	.....	.....	.....
176789 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.09/20/2023	.09/20/2024	 77	 33,896,940	.. 4402.20000000	 2,888,039	.....	..... (1,418,531)	 664,645	.....	..... 3,684,634	.....	.....	..... (1,418,531)	.....	.....	.....	.....
176794 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32WIFA76	.09/20/2023	.09/20/2028	.....	..... 19,904,336	.. 4402.20000000	 1,100,710	.....	..... (542,816)	 250,298	.....	..... 1,651,112	.....	.....	..... (542,816)	.....	.....	.....	.....
176797 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32WIFA76	.09/20/2023	.09/20/2030	.....	..... 16,076,508	.. 4402.20000000	 901,892	.....	..... (444,769)	 205,088	.....	..... 1,259,226	.....	.....	..... (444,769)	.....	.....	.....	.....
176799 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUISFPUM8PROK5P83	.09/20/2023	.09/20/2024	.....	..... 37,589,737	.. 1236.49000000	 2,631,282	.....	..... (1,290,755)	 607,219	.....	..... 7,692,624	.....	.....	..... (1,290,755)	.....	.....	.....	.....
176801 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXT09	.09/20/2023	.09/20/2024	.....	..... 13,691,679	.. 4402.20000000	 455,933	.....	..... (223,654)	 105,215	.....	..... 707,942	.....	.....	..... (223,654)	.....	.....	.....	.....
176802 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCEMIK50	.09/20/2023	.09/20/2024	.....	..... 8,260,357	.. 505.76000000	 547,662	.....	..... (268,651)	 126,383	.....	..... 392,522	.....	.....	..... (268,651)	.....	.....	.....	.....
176834 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA E571P3U3RHHG71XBU11	.09/20/2023	.09/20/2024	.....	..... 28,159,475	.. 4402.20000000	 1,348,839	.....	..... (661,662)	 311,271	.....	..... 750,487	.....	.....	..... (661,662)	.....	.....	.....	.....
177507 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.04/04/2025	 10	 4,308,500	.. 4308.50000000	 388,200	.....	..... (126,509)	 200,546	.....	..... 89,578	.....	.....	..... (126,509)	.....	.....	.....	.....
177511 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 106	 45,670,100	.. 4308.50000000	 4,114,920	.....	..... (2,022,541)	 1,120,173	.....	..... 915,165	.....	.....	..... (2,022,541)	.....	.....	.....	.....
177514 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 118	 50,840,300	.. 4308.50000000	 4,580,760	.....	..... (2,251,508)	 1,246,985	.....	..... 1,339,744	.....	.....	..... (2,251,508)	.....	.....	.....	.....
177523 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 124	 53,425,400	.. 4308.50000000	 4,813,680	.....	..... (2,365,991)	 1,310,391	.....	..... 1,864,481	.....	.....	..... (2,365,991)	.....	.....	.....	.....
177526 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCJFXT09	.10/06/2023	.10/04/2024	.....	..... 42,905,021	.. 1214.70000000	 2,990,480	.....	..... (1,467,595)	 816,343	.....	..... 9,801,562	.....	.....	..... (1,467,595)	.....	.....	.....	.....
177529 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCEMIK50	.10/06/2023	.10/04/2024	.....	..... 8,828,621	.. 494.62000000	 583,572	.....	..... (286,391)	 159,304	.....	..... 634,318	.....	.....	..... (286,391)	.....	.....	.....	.....
177531 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 99	 42,837,649	.. 4308.50000000	 3,859,713	.....	..... (1,897,103)	 1,050,700	.....	..... 1,640,442	.....	.....	..... (1,897,103)	.....	.....	.....	.....
177546 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 108	 46,746,622	.. 4308.50000000	 4,211,916	.....	..... (2,070,216)	 1,146,577	.....	..... 1,926,178	.....	.....	..... (2,070,216)	.....	.....	.....	.....
177560 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 122	 52,369,214	.. 4308.50000000	 4,718,517	.....	..... (2,319,217)	 1,284,485	.....	..... 2,497,544	.....	.....	..... (2,319,217)	.....	.....	.....	.....
177570 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 108	 46,423,097	.. 4308.50000000	 4,182,766	.....	..... (2,055,888)	 1,138,642	.....	..... 2,742,656	.....	.....	..... (2,055,888)	.....	.....	.....	.....
177579 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 114	 49,266,836	.. 4308.50000000	 4,438,989	.....	..... (2,181,826)	 1,208,392	.....	..... 4,632,669	.....	.....	..... (2,181,826)	.....	.....	.....	.....
177590 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.10/06/2023	.10/04/2024	 184	 79,276,400	.. 4308.50000000	 7,142,880	.....	..... (3,510,826)	 1,944,451	.....	..... 8,615,852	.....	.....	..... (3,510,826)	.....	.....	.....	.....
177593 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.10/06/2023	.10/04/2024	.....	..... 73,931,298	.. 4308.50000000	 6,877,000	.....	..... (3,374,927)	 1,877,287	.....	..... 1,421,261	.....	.....	..... (3,374,927)	.....	.....	.....	.....
177594 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32WIFA76	.10/06/2023	.10/06/2028	.....	..... 28,835,985	.. 4308.50000000	 1,603,281	.....	..... (790,659)	 434,862	.....	..... 2,336,383	.....	.....	..... (790,659)	.....	.....	.....	.....
177597 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32WIFA76	.10/06/2023	.10/04/2030	.....	..... 27,912,359	.. 4308.50000000	 1,599,378	.....	..... (788,734)	 433,804	.....	..... 1,998,339	.....	.....	..... (788,734)	.....	.....	.....	.....
177598 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.10/06/2023	.10/04/2024		 31,934,184	.. 4308.50000000	 1,669,317		 (819,227)	 455,691		 906,497			 (819,227)				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
177600 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	10/06/2023	10/04/2024	.....	15,614,459	..4308.50000000	424,713	.....	(208,430)	115,938	.....	1,822,825	.....	.....	.....(208,430)	.....	.....	.....	.....
177479 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/09/2023	10/04/2024	2,242	38,053,352	..169.70000000	3,083,286	.....	(1,537,372)	837,014	.....	2,660,842	.....	.....	.....(1,537,372)	.....	.....	.....	.....
177488 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/09/2023	10/04/2024	2,775	21,302,298	..76.77000000	1,814,733	.....	(904,853)	492,642	.....	1,092,502	.....	.....	.....(904,853)	.....	.....	.....	.....
177499 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/09/2023	10/04/2024	232	1,588,530	..68.52000000	127,277	.....	(63,462)	34,552	.....	97,584	.....	.....	.....(63,462)	.....	.....	.....	.....
177770 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	10/13/2023	10/13/2024	.....	1,367,847	..4375.57485903	68,096	.....	(33,270)	20,128	.....	238,834	.....	.....	.....(33,270)	.....	.....	.....	.....
177903 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	10/18/2024	1,637	30,045,998	..183.59000000	2,656,172	.....	(1,306,700)	824,075	.....	2,033,436	.....	.....	.....(1,306,700)	.....	.....	.....	.....
177925 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	10/18/2024	86	574,398	..66.57000000	46,162	.....	(22,710)	14,322	.....	30,530	.....	.....	.....(22,710)	.....	.....	.....	.....
177932 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	04/17/2025	10	4,224,160	..4224.16000000	500,140	.....	(163,696)	270,371	.....	204,290	.....	.....	.....(163,696)	.....	.....	.....	.....
177939 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	10/18/2024	138	58,293,408	..4224.16000000	5,432,922	.....	(2,672,718)	1,685,560	.....	1,577,377	.....	.....	.....(2,672,718)	.....	.....	.....	.....
177949 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	10/18/2024	104	44,033,320	..4224.16000000	4,103,888	.....	(2,018,901)	1,273,228	.....	1,591,888	.....	.....	.....(2,018,901)	.....	.....	.....	.....
177959 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	10/18/2024	147	61,983,381	..4224.16000000	5,776,826	.....	(2,841,901)	1,792,256	.....	2,576,565	.....	.....	.....(2,841,901)	.....	.....	.....	.....
177970 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	10/20/2023	10/18/2024	104	43,750,470	..4224.16000000	4,077,526	.....	(2,005,933)	1,265,050	.....	3,016,130	.....	.....	.....(2,005,933)	.....	.....	.....	.....
177971 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	10/20/2023	10/18/2024	.....	35,345,118	..1196.46000000	2,445,882	.....	(1,201,140)	760,941	.....	8,768,584	.....	.....	.....(1,201,140)	.....	.....	.....	.....
177974 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	10/20/2023	10/18/2024	.....	7,651,762	..492.53000000	501,956	.....	(246,504)	156,164	.....	599,842	.....	.....	.....(246,504)	.....	.....	.....	.....
177980 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	10/20/2023	10/20/2028	.....	25,497,560	..4224.16000000	1,455,911	.....	(717,983)	450,734	.....	2,259,320	.....	.....	.....(717,983)	.....	.....	.....	.....
177984 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	10/20/2023	10/18/2030	.....	30,461,212	..4224.16000000	1,812,442	.....	(893,807)	561,112	.....	2,545,674	.....	.....	.....(893,807)	.....	.....	.....	.....
177987 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	10/20/2023	10/18/2024	.....	13,212,998	..4224.16000000	402,996	.....	(197,906)	125,377	.....	1,236,303	.....	.....	.....(197,906)	.....	.....	.....	.....
177990 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	10/20/2023	10/18/2024	.....	16,480,710	..74.75000000	1,573,907	.....	(772,925)	489,660	.....	913,022	.....	.....	.....(772,925)	.....	.....	.....	.....
178004 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	10/20/2023	10/18/2024	.....	72,956,407	..4224.16000000	7,035,916	.....	(3,455,245)	2,188,952	.....	1,428,711	.....	.....	.....(3,455,245)	.....	.....	.....	.....
178011 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	10/20/2023	10/18/2024	.....	52,541,392	..4224.16000000	5,067,092	.....	(2,488,381)	1,576,429	.....	2,668,788	.....	.....	.....(2,488,381)	.....	.....	.....	.....
178025 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A.	10/20/2023	10/18/2024	.....	48,792,077	..4224.16000000	4,586,455	.....	(2,252,347)	1,426,897	.....	4,715,239	.....	.....	.....(2,252,347)	.....	.....	.....	.....
178031 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A.	10/20/2023	10/18/2024	.....	80,679,356	..4224.16000000	7,583,859	.....	(3,724,332)	2,359,423	.....	8,839,488	.....	.....	.....(3,724,332)	.....	.....	.....	.....
178036 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	10/20/2023	10/18/2024	.....	23,572,584	..4224.16000000	1,308,278	.....	(642,478)	407,020	.....	795,370	.....	.....	.....(642,478)	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
178390 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	11/06/2023	05/06/2025	4,703,317	4365.98000000	536,507		(175,424)	307,138		213,364			(175,424)				
178397 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMIPRO8K5P83	11/06/2023	11/06/2024	51,696,594	4365.98000000	4,562,224		(2,234,745)	1,641,899		1,813,743			(2,234,745)				
178406 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMIPRO8K5P83	11/06/2023	11/06/2024	49,921,490	4365.98000000	4,405,571		(2,158,010)	1,585,522		1,960,388			(2,158,010)				
178421 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMIPRO8K5P83	11/06/2023	11/06/2024	43,057,215	4365.98000000	3,799,799		(1,861,281)	1,367,510		1,907,574			(1,861,281)				
178431 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMIPRO8K5P83	11/06/2023	11/06/2024	51,713,051	4365.98000000	4,564,711		(2,235,963)	1,642,794		2,761,428			(2,235,963)				
178435 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMIPRO8K5P83	11/06/2023	11/06/2024	33,391,840	4365.98000000	2,947,498		(1,443,792)	1,060,775		2,117,231			(1,443,792)				
178444 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	11/06/2023	11/06/2024	18,621,821	4365.98000000	601,485		(294,629)	216,468		2,364,197			(294,629)				
178447 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZWZ7FF32TWEFA76	11/06/2023	11/06/2028	37,538,719	4365.98000000	2,102,168		(1,036,686)	748,717		3,181,643			(1,036,686)				
178450 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZWZ7FF32TWEFA76	11/06/2023	11/06/2030	43,943,432	4365.98000000	2,561,902		(1,263,404)	912,458		3,521,787			(1,263,404)				
178461 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	1,872	183.35000000	2,804,529		(1,376,526)	1,006,557		2,267,568			(1,376,526)				
178469 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	2,602	78.97000000	1,831,887		(899,132)	657,472		982,063			(899,132)				
178477 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	146	69.31000000	79,237		(38,891)	28,439		60,073			(38,891)				
178503 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	11/06/2023	11/06/2024	31,886,501	4365.98000000	1,543,307		(755,968)	555,421		1,038,307			(755,968)				
178508 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	134	4365.98000000	4,996,190		(2,452,243)	1,793,153		1,110,049			(2,452,243)				
178509 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	11/06/2023	11/06/2024	42,250,102	1225.02000000	2,847,657		(1,394,887)	1,024,844		9,424,763			(1,394,887)				
178510 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFMBT61CT2L1QCEMIK50	11/06/2023	11/06/2024	11,133,582	499.30000000	722,569		(353,941)	260,046		748,706			(353,941)				
178512 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	134	4365.98000000	4,996,190		(2,452,243)	1,793,153		1,154,783			(2,452,243)				
178514 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	187	4365.98000000	6,972,295		(3,422,160)	2,502,385		2,197,018			(3,422,160)				
178519 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	183	4365.98000000	6,834,244		(3,354,402)	2,452,838		7,413,830			(3,354,402)				
178527 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	113	4365.98000000	4,213,205		(2,067,937)	1,512,137		5,135,650			(2,067,937)				
178529 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/06/2023	11/06/2024	95	4365.98000000	3,542,075		(1,738,531)	1,271,265		4,668,374			(1,738,531)				
178677 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBMIPRO8K5P83	11/10/2023	11/08/2024	1,175,658	4377.96069682	54,090		(26,528)	19,983		226,237			(26,528)				
178947 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	1,753	183.37000000	2,555,746		(1,254,150)	1,015,296		1,934,724			(1,254,150)				
178958 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	1,852	82.34000000	1,257,290		(616,975)	499,471		612,313			(616,975)				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
178976 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	188	1,355,545	72.12000000	89,655	(43,996)	35,617		78,848			(43,996)				
178984 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	110	49,839,921	4547.38000000	4,091,859	(2,007,948)	1,625,533		2,073,014			(2,007,948)				
178986 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	05/20/2025	7	3,183,166	4547.38000000	337,099	(110,560)	201,272		61,823			(110,560)				
179006 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	111	50,348,319	4547.38000000	4,133,598	(2,028,430)	1,642,114		2,469,680			(2,028,430)				
179012 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	156	70,939,128	4547.38000000	5,824,104	(2,857,992)	2,313,685		1,326,636			(2,857,992)				
179022 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	122	55,478,036	4547.38000000	4,554,748	(2,235,096)	1,809,420		1,084,280			(2,235,096)				
179023 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	90	40,736,340	4547.38000000	3,344,454	(1,641,184)	1,328,619		2,781,283			(1,641,184)				
179025 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	105	47,878,455	4547.38000000	3,930,822	(1,928,925)	1,561,560		1,690,286			(1,928,925)				
179037 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	121	55,149,715	4547.38000000	4,527,793	(2,221,869)	1,798,712		5,421,774			(2,221,869)				
179038 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZIWZFF32WFEA76	11/20/2023	11/20/2028		36,129,319	4547.38000000	2,066,597	(1,019,144)	815,315		2,983,769			(1,019,144)				
179048 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZIWZFF32WFEA76	11/20/2023	11/20/2030		57,521,044	4547.38000000	3,416,750	(1,684,973)	1,347,978		4,490,913			(1,684,973)				
179049 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	11/20/2023	11/20/2024	83	37,743,254	4547.38000000	3,098,722	(1,520,598)	1,230,999		4,059,487			(1,520,598)				
179053 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	11/20/2023	11/20/2024		13,914,188	4547.38000000	414,643	(203,020)	165,174		801,958			(203,020)				
179057 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	11/20/2023	11/20/2024		27,764,868	4547.38000000	1,266,078	(619,905)	504,344		713,924			(619,905)				
179061 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	11/20/2023	11/20/2024		34,534,766	1259.07000000	2,317,283	(1,134,603)	923,093		6,640,275			(1,134,603)				
179063 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFM8T61CT2L1QCEMIK50	11/20/2023	11/20/2024		9,381,654	503.00000000	607,931	(297,659)	242,170		581,634			(297,659)				
179101 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP517OUK5573	11/20/2023	11/20/2024		59,596,710	4547.38000000	5,062,591	(2,478,779)	2,016,691		1,564,851			(2,478,779)				
179446 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	1,842	34,595,845	187.84000000	2,875,006	(1,410,473)	1,268,153		2,009,778			(1,410,473)				
179457 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	1,878	16,182,101	86.18000000	1,370,728	(672,477)	604,622		538,659			(672,477)				
179467 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	06/06/2025	7	3,184,538	4549.34000000	335,972	(109,971)	210,673		66,118			(109,971)				
179472 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	142	64,600,628	4549.34000000	5,277,856	(2,589,306)	2,328,041		1,188,591			(2,589,306)				
179479 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	132	60,051,288	4549.34000000	4,906,176	(2,406,961)	2,164,094		1,584,259			(2,406,961)				
179487 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	107	48,701,595	4549.34000000	3,978,909	(1,952,045)	1,755,080		1,729,235			(1,952,045)				
179507 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	118	53,709,463	4549.34000000	4,388,050	(2,152,769)	1,935,551		2,222,697			(2,152,769)				
179521 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUWSPFUM8MPR08K5P83	12/06/2023	12/06/2024		39,056,540	1260.04000000	2,597,260	(1,271,063)	1,148,788		7,528,305			(1,271,063)				

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SCHEDULE DB - PART A - SECTION 1

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
179522 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	111	50,336,263	4549.34000000	4,112,461	(2,017,565)	1,813,990		2,427,661			(2,017,565)				
179525 Call Options - S&P U.S. Retiree	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFBMT61CT2L1QCEMIK50	12/06/2023	12/06/2024		8,884,743	509.49000000	561,516	(274,798)	248,363		464,073			(274,798)				
179527 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	12/06/2023	12/06/2024		22,348,709	4549.34000000	1,041,450	(509,671)	460,641		579,384			(509,671)				
179531 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	108	49,132,872	4549.34000000	4,014,144	(1,969,331)	1,770,622		2,738,690			(1,969,331)				
179535 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	79	36,066,986	4549.34000000	2,946,664	(1,445,628)	1,299,761		3,172,118			(1,445,628)				
179541 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZVZ7FF32TWEFA76	12/06/2023	12/06/2028		46,937,687	4549.34000000	2,651,979	(1,307,825)	1,162,511		4,047,388			(1,307,825)				
179546 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	146	66,420,364	4549.34000000	5,426,528	(2,662,244)	2,393,619		6,872,670			(2,662,244)				
179547 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZVZ7FF32TWEFA76	12/06/2023	12/06/2030		70,330,138	4549.34000000	4,128,379	(2,035,913)	1,809,700		5,746,462			(2,035,913)				
179554 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHN3JPF6GNF3BB653	12/06/2023	12/06/2024		48,669,647	4549.34000000	4,172,792	(2,042,107)	1,845,658		944,536			(2,042,107)				
179558 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHN3JPF6GNF3BB653	12/06/2023	12/06/2024		14,728,925	4549.34000000	447,760	(219,127)	198,047		1,505,087			(219,127)				
179559 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	12/06/2023	12/06/2024		676,641	72.57000000	47,839	(23,412)	21,159		38,168			(23,412)				
179783 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUWSPFU8MPRO8K5P83	12/15/2023	12/15/2024		1,990,571	4685.23984322	99,532	(48,439)	46,742		265,628			(48,439)				
180049 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	91	42,627,566	4698.35000000	3,567,910	(1,750,036)	1,710,642		1,519,472			(1,750,036)				
180063 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	219	102,901,758	4698.35000000	8,612,836	(4,224,538)	4,129,442		4,477,181			(4,224,538)				
180068 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	12/20/2023	12/20/2024		22,808,684	4698.35000000	1,050,879	(514,065)	505,230		601,557			(514,065)				
180077 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	96	45,104,160	4698.35000000	3,775,200	(1,851,710)	1,810,027		2,442,989			(1,851,710)				
180078 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	12/20/2023	12/20/2024		16,386,355	4698.35000000	504,700	(246,887)	242,644		939,693			(246,887)				
180081 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	72	33,828,684	4698.35000000	2,831,447	(1,388,806)	1,357,543		2,788,674			(1,388,806)				
180082 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	1,722	32,395,250	188.10000000	2,640,187	(1,294,994)	1,265,843		1,898,730			(1,294,994)				
180094 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	107	50,272,345	4698.35000000	4,207,775	(2,063,885)	2,017,426		4,949,635			(2,063,885)				
180100 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZVZ7FF32TWEFA76	12/20/2023	12/20/2028		54,736,341	4698.35000000	3,065,235	(1,511,623)	1,461,235		4,328,498			(1,511,623)				
180105 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	1,794	16,082,971	89.63000000	1,309,893	(642,494)	628,031		348,055			(642,494)				
180106 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	E570DZVZ7FF32TWEFA76	12/20/2023	12/20/2030		76,504,302	4698.35000000	4,414,298	(2,176,914)	2,104,350		5,696,925			(2,176,914)				
180124 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57PNE97	12/20/2023	12/20/2024		39,590,854	1292.08000000	2,632,792	(1,287,899)	1,265,765		6,558,556			(1,287,899)				

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
180127 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	06/20/2025	7	3,288,845	4698.35000000	338,422	(110,757)	220,871		61,343			(110,757)				
180129 Call Options - S&P U.S. Retiree	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFMBT61CT2L1QCCEMIK50	12/20/2023	12/20/2024		9,155,039	514.87000000	566,697	(277,215)	272,450		410,178			(277,215)				
Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	127	59,669,045	4698.35000000	4,994,275	(2,449,658)	2,394,515		1,069,636			(2,449,658)				
180133 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	149	70,005,415	4698.35000000	5,859,425	(2,874,009)	2,809,313		1,437,498			(2,874,009)				
180136 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	93	43,694,655	4698.35000000	3,657,225	(1,793,844)	1,753,464		1,222,065			(1,793,844)				
180149 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	12/20/2023	12/20/2024		924,215	73.47000000	68,854	(33,682)	33,103		47,467			(33,682)				
180157 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	01/05/2024	01/06/2025		46,576,850	1291.44000000		3,074,072	(1,448,117)		1,625,955			(1,448,117)				
180473 Call Options - S&P Equal Weight	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFMBT61CT2L1QCCEMIK50	01/05/2024	01/06/2025		8,456,288	516.20000000	524,290	(246,980)	277,310		379,580			(246,980)				
Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	W22LR0WP2IHZNBB6K528	01/05/2024	01/06/2025		37,091,436	189.35000000	2,918,735	(1,374,941)	1,543,793		2,007,081			(1,374,941)				
180474 Call Options - S&P U.S. Retiree	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUWSPU8MIPRO8K5P83	01/05/2024	01/06/2025		47,881,518	4697.24000000	4,037,848	(1,902,127)	2,135,721		1,323,179			(1,902,127)				
Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUWSPU8MIPRO8K5P83	01/05/2024	01/06/2025		43,258,847	4697.24000000	3,648,451	(1,718,692)	1,929,759		1,520,885			(1,718,692)				
180481 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	1,835	16,453,535	89.66000000	1,365,317	(645,150)	720,167		364,837			(645,150)				
180499 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	151	1,117,209	74.17000000	74,712	(35,303)	39,408		55,092			(35,303)				
180503 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP517OUK5573	01/05/2024	01/06/2025		35,316,640	4697.24000000	2,983,465	(1,405,434)	1,578,031		2,812,434			(1,405,434)				
180510 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	07/03/2025	7	3,288,068	4697.24000000	340,312	(107,996)	232,316		69,760			(107,996)				
180524 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP517OUK5573	01/05/2024	01/06/2025		24,767,973	4697.24000000	1,079,471	(508,511)	570,960		645,135			(508,511)				
180526 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	ES70DZVZ7FF32TWEFA76	01/05/2024	01/05/2029		60,445,980	4697.24000000	3,348,707	(1,605,545)	1,743,163		4,603,372			(1,605,545)				
180537 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	143	67,170,532	4697.24000000	5,427,422	(2,564,606)	2,862,816		1,196,098			(2,564,606)				
180539 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	ES70DZVZ7FF32TWEFA76	01/05/2024	01/06/2031		102,482,500	4697.24000000	5,913,240	(2,835,115)	3,078,125		7,241,264			(2,835,115)				
180544 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	01/05/2024	01/06/2025		17,094,461	4697.24000000	459,841	(216,619)	243,222		1,159,311			(216,619)				
180545 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	127	59,654,948	4697.24000000	4,820,158	(2,277,657)	2,542,501		1,205,473			(2,277,657)				
180551 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	216	101,448,876	4697.24000000	8,197,134	(3,873,371)	4,323,763		4,344,235			(3,873,371)				
180558 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	97	45,399,200	4697.24000000	3,668,284	(1,733,365)	1,934,919		2,459,281			(1,733,365)				
180560 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	110	51,669,640	4697.24000000	4,174,940	(1,972,774)	2,202,166		4,830,076			(1,972,774)				
180562 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP517OUK5573	01/12/2024	01/12/2025		939,135	4783.45000000	41,437	(18,710)	22,727		116,850			(18,710)				

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
180796 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	95	45,811,706	4839.81000000	3,559,539	(1,557,915)	2,001,624		1,622,820			(1,557,915)				
180815 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	125	60,473,136	4839.81000000	4,698,722	(2,056,504)	2,642,218		2,525,920			(2,056,504)				
180824 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	95	45,749,030	4839.81000000	3,554,669	(1,555,783)	1,998,886		2,273,354			(1,555,783)				
180835 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	151	73,255,364	4839.81000000	5,691,893	(2,491,189)	3,200,704		5,691,495			(2,491,189)				
180848 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHN3JPFGFNF3B8653	01/19/2024	01/17/2025		58,808,525	4839.81000000	4,495,870	(1,960,699)	2,535,171		1,156,835			(1,960,699)				
180849 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGQFU57RNE97	01/19/2024	01/19/2029		30,600,543	4839.81000000	1,621,829	(715,382)	906,447		2,510,071			(715,382)				
180854 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGQFU57RNE97	01/19/2024	01/17/2031		77,737,735	4839.81000000	4,361,087	(1,923,658)	2,437,429		6,933,662			(1,923,658)				
180856 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	01/19/2024	01/17/2025		14,339,415	4839.81000000	421,579	(183,855)	237,724		626,426			(183,855)				
180859 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC MORGAN STANLEY & CO. INTERNATIONAL PLC	G5GSEF7VJP5I70UK5573	01/19/2024	01/17/2025		18,784,706	4839.81000000	779,957	(340,148)	439,809		472,136			(340,148)				
180863 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	PLC	4PQUHN3JPFGFNF3B8653	01/19/2024	01/17/2025		43,099,400	4839.81000000	3,294,918	(1,436,950)	1,857,968		1,151,042			(1,436,950)				
180867 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	1,573	29,564,873	187.93000000	2,243,362	(981,859)	1,261,503		1,655,337			(981,859)				
180876 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	1,750	15,451,876	88.32000000	1,217,675	(532,944)	684,731		387,329			(532,944)				
180882 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	228	1,687,951	73.93000000	114,159	(49,964)	64,195		82,372			(49,964)				
180892 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	07/18/2025	6	2,903,886	4839.81000000	292,128	(85,002)	207,126		50,531			(85,002)				
180896 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFM8T61CT2L1QCEMIK50	01/19/2024	01/17/2025		5,554,494	515.69000000	341,601	(148,976)	192,625		262,709			(148,976)				
180897 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	01/19/2024	01/17/2025		30,326,908	1331.27000000	1,992,478	(868,942)	1,123,536		4,206,982			(868,942)				
180900 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	122	59,045,682	4839.81000000	4,587,810	(2,007,961)	2,579,849		1,022,774			(2,007,961)				
181308 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/06/2024	02/06/2025	2,448	46,148,103	188.55000000	3,404,509	(1,324,494)	2,080,015		2,502,448			(1,324,494)				
181340 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/06/2024	02/06/2025	2,753	23,818,090	86.52000000	1,932,536	(751,836)	1,180,700		732,354			(751,836)				
181352 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/06/2024	02/06/2025	324	2,439,683	75.21000000	162,840	(63,352)	99,489		124,232			(63,352)				
181363 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/06/2024	02/06/2025	158	78,276,834	4954.23000000	6,082,052	(2,366,168)	3,715,884		1,297,896			(2,366,168)				
181370 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/06/2024	02/06/2025	135	66,882,105	4954.23000000	5,196,690	(2,021,726)	3,174,964		1,246,734			(2,021,726)				
181379 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/06/2024	02/06/2025	96	47,560,608	4954.23000000	3,695,424	(1,437,672)	2,257,752		1,201,470			(1,437,672)				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
181385 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	02/06/2024	02/06/2025	.....	25,062,639	..4954.23000000	.....	.....390,977	(151,450)	239,527	.....	.....598,035	.....	.....	.....(151,450)	.....	.....	.....	.....
181386 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/06/2024	02/06/2025	107	52,929,755	..4954.23000000	.....	.....4,112,603	(1,599,971)	2,512,631	.....	.....1,867,091	.....	.....	.....(1,599,971)	.....	.....	.....	.....
181399 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/06/2024	02/06/2025	120	59,450,760	..4954.23000000	.....	.....4,619,280	(1,797,090)	2,822,190	.....	.....2,945,048	.....	.....	.....(1,797,090)	.....	.....	.....	.....
181400 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	02/06/2024	02/06/2029	.....	41,505,951	..4954.23000000	.....	.....2,137,556	(837,454)	1,300,103	.....	.....3,206,662	.....	.....	.....(837,454)	.....	.....	.....	.....
181402 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	02/06/2024	02/06/2031	.....	79,357,783	..4954.23000000	.....	.....4,317,063	(1,691,343)	2,625,721	.....	.....6,609,097	.....	.....	.....(1,691,343)	.....	.....	.....	.....
181403 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/06/2024	02/06/2025	76	37,756,682	..4954.23000000	.....	.....2,933,666	(1,141,317)	1,792,350	.....	.....2,402,186	.....	.....	.....(1,141,317)	.....	.....	.....	.....
181411 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/06/2024	02/06/2025	132	65,395,836	..4954.23000000	.....	.....5,081,208	(1,976,799)	3,104,409	.....	.....5,183,024	.....	.....	.....(1,976,799)	.....	.....	.....	.....
181417 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	02/06/2024	02/06/2025	.....	8,110,491	..515.55000000	.....	.....502,039	(194,471)	307,568	.....	.....407,449	.....	.....	.....(194,471)	.....	.....	.....	.....
181418 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	02/06/2024	02/06/2025	.....	51,199,691	..1362.57000000	.....	.....3,368,940	(1,305,001)	2,063,938	.....	.....6,043,923	.....	.....	.....(1,305,001)	.....	.....	.....	.....
181419 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	02/06/2024	02/06/2025	.....	22,087,163	..4954.23000000	.....	.....700,163	(271,217)	428,946	.....	.....1,540,232	.....	.....	.....(271,217)	.....	.....	.....	.....
181421 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	02/06/2024	08/06/2025	.....	3,694,660	..4954.23000000	.....	.....392,151	(101,456)	290,696	.....	.....64,841	.....	.....	.....(101,456)	.....	.....	.....	.....
181425 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	02/06/2024	02/06/2025	.....	99,871,911	..4954.23000000	.....	.....8,132,570	(3,150,254)	4,982,316	.....	.....4,045,683	.....	.....	.....(3,150,254)	.....	.....	.....	.....
181468 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	02/09/2024	02/09/2025	.....	1,119,734	..4993.90739631	.....	.....52,631	(19,773)	32,858	.....	.....98,879	.....	.....	.....(19,773)	.....	.....	.....	.....
181776 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	95	47,267,345	..4975.51000000	.....	.....3,795,535	(1,331,037)	2,464,498	.....	.....1,185,185	.....	.....	.....(1,331,037)	.....	.....	.....	.....
181779 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	02/20/2024	02/20/2029	.....	27,738,664	..4975.51000000	.....	.....1,398,029	(494,098)	903,931	.....	.....1,936,621	.....	.....	.....(494,098)	.....	.....	.....	.....
181784 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	02/20/2024	02/20/2031	.....	55,268,008	..4975.51000000	.....	.....2,956,838	(1,045,020)	1,911,819	.....	.....4,002,553	.....	.....	.....(1,045,020)	.....	.....	.....	.....
181787 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	2,131	39,946,857	..187.47000000	.....	.....2,959,737	(1,037,935)	1,921,802	.....	.....2,088,628	.....	.....	.....(1,037,935)	.....	.....	.....	.....
181793 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	109	54,248,981	..4975.51000000	.....	.....4,356,156	(1,527,638)	2,828,517	.....	.....1,845,296	.....	.....	.....(1,527,638)	.....	.....	.....	.....
181808 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	2,435	21,178,304	..86.96000000	.....	.....1,719,398	(602,967)	1,116,431	.....	.....592,803	.....	.....	.....(602,967)	.....	.....	.....	.....
181814 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	200	99,641,454	..4975.51000000	.....	.....8,001,140	(2,805,879)	5,195,261	.....	.....3,929,084	.....	.....	.....(2,805,879)	.....	.....	.....	.....
181828 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	08/20/2025	6	2,985,306	..4975.51000000	.....	.....307,188	(72,015)	235,173	.....	.....51,828	.....	.....	.....(72,015)	.....	.....	.....	.....
181830 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	69	34,297,584	..4975.51000000	.....	.....2,754,072	(965,812)	1,788,261	.....	.....1,709,956	.....	.....	.....(965,812)	.....	.....	.....	.....
181832 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	123	61,198,773	..4975.51000000	.....	.....4,914,219	(1,723,343)	3,190,876	.....	.....1,115,041	.....	.....	.....(1,723,343)	.....	.....	.....	.....
181844 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	02/20/2024	02/20/2025	146	1,113,790	..76.38000000	.....	.....79,036	(27,717)	51,319	.....	.....47,971	.....	.....	.....(27,717)	.....	.....	.....	.....
181853 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	02/20/2024	02/20/2025		20,721,749	..4975.51000000		955,273	(333,296)	621,977		497,197			(333,296)				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
181867 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	02/20/2024	02/20/2025		6,980,531	517.24000000		439,773	(153,437)	286,336		343,226			(153,437)				
181868 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BANK OF AMERICA, N.A.	02/20/2024	02/20/2025		42,729,051	1368.74000000		2,875,665	(1,003,323)	1,872,342		4,867,988			(1,003,323)				
181869 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	02/20/2024	02/20/2025		16,234,929	4975.51000000		451,331	(157,470)	293,861		427,527			(157,470)				
181878 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	02/20/2024	02/20/2025		65,276,252	4975.51000000		5,508,010	(1,921,751)	3,586,259		1,073,250			(1,921,751)				
181884 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	02/20/2024	02/20/2025		62,395,362	4975.51000000		5,241,210	(1,828,664)	3,412,546		4,543,901			(1,828,664)				
182202 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	03/06/2024	03/06/2029		43,838,652	5104.76000000		2,183,165	(681,865)	1,501,300		2,337,196			(681,865)				
182204 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CITIBANK N.A.	03/06/2024	03/06/2031		73,621,521	5104.76000000		3,857,768	(1,204,892)	2,652,876		3,519,957			(1,204,892)				
182206 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	2,268	45,093,299	198.81000000		3,472,554	(1,078,018)	2,394,536		2,017,438			(1,078,018)				
182220 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	172	1,349,120	78.58000000		87,904	(27,289)	60,615		47,909			(27,289)				
182231 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	09/05/2025	4	2,041,904	5104.76000000		211,540	(43,700)	167,840		32,690			(43,700)				
182240 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	148	75,550,448	5104.76000000		6,059,120	(1,880,991)	4,178,129		1,184,502			(1,880,991)				
182248 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	131	66,872,356	5104.76000000		5,363,140	(1,664,931)	3,698,209		1,168,324			(1,664,931)				
182249 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	03/06/2024	03/06/2025		50,269,144	5104.76000000		4,252,770	(1,312,149)	2,940,620		2,280,102			(1,312,149)				
182256 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	03/06/2024	03/06/2025		24,154,215	89.65000000		2,171,705	(670,058)	1,501,647		575,936			(670,058)				
182257 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	93	47,474,268	5104.76000000		3,807,420	(1,181,974)	2,625,446		1,130,656			(1,181,974)				
182262 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	116	58,971,208	5104.76000000		4,729,471	(1,468,215)	3,261,256		1,909,692			(1,468,215)				
182272 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	03/06/2024	03/06/2025	191	97,276,307	5104.76000000		7,801,526	(2,421,902)	5,379,624		6,356,552			(2,421,902)				
182279 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	03/06/2024	03/06/2025		133,854,538	5104.76000000		11,324,094	(3,493,935)	7,830,159		5,138,853			(3,493,935)				
182292 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	03/06/2024	03/06/2025		8,863,281	520.97000000		557,500	(172,011)	385,489		398,340			(172,011)				
182293 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	03/06/2024	03/06/2025		48,914,664	1398.28000000		3,291,957	(1,015,700)	2,276,257		4,731,945			(1,015,700)				
182296 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	03/06/2024	03/06/2025		25,715,456	5104.76000000		1,445,209	(445,905)	999,304		590,660			(445,905)				
182300 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	03/06/2024	03/06/2025		18,264,456	5104.76000000		503,551	(155,366)	348,185		1,052,026			(155,366)				
182519 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BANK OF AMERICA, N.A.	03/15/2024	03/14/2025		1,396,661	5160.01000000		60,554	(16,989)	43,565		92,265			(16,989)				
182744 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	03/20/2024	03/20/2025		80,854,470	5224.62000000		6,904,972	(1,864,152)	5,040,820		1,193,396			(1,864,152)				
182753 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	03/20/2024	03/20/2025		85,327,218	5224.62000000		7,304,010	(1,971,881)	5,332,128		5,378,101			(1,971,881)				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
182764 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCUFXT09	.03/20/2024	.03/20/2025	.....	1,573,725	5224.62000000	.....	135,026	(36,453)	98,572	.....	126,211	.....	.....	(36,453)	.....	.....	.....	.....
182767 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	2,103	42,516,432	202.18000000	.....	3,141,733	(854,482)	2,287,250	.....	1,679,860	.....	.....	(854,482)	.....	.....	.....	.....
182777 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZWZ7FF32TWEFA76	.03/20/2024	.03/20/2025	.....	18,424,934	5224.62000000	.....	521,426	(140,771)	380,655	.....	392,145	.....	.....	(140,771)	.....	.....	.....	.....
182780 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	3,062	27,184,699	88.79000000	.....	1,781,901	(484,638)	1,297,263	.....	699,564	.....	.....	(484,638)	.....	.....	.....	.....
182781 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZWZ7FF32TWEFA76	.03/20/2024	.03/20/2029	.....	23,117,461	5224.62000000	.....	1,246,031	(341,378)	904,653	.....	1,167,999	.....	.....	(341,378)	.....	.....	.....	.....
182784 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGUFU57RNE97	.03/20/2024	.03/20/2031	.....	71,515,666	5224.62000000	.....	3,954,816	(1,083,511)	2,871,305	.....	4,199,744	.....	.....	(1,083,511)	.....	.....	.....	.....
182789 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	93	48,536,302	5224.62000000	.....	3,936,325	(1,070,594)	2,865,731	.....	1,422,597	.....	.....	(1,070,594)	.....	.....	.....	.....
182790 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	157	1,252,607	79.85000000	.....	80,474	(21,887)	58,587	.....	39,415	.....	.....	(21,887)	.....	.....	.....	.....
182804 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	260	135,800,674	5224.62000000	.....	11,013,521	(2,995,436)	8,018,085	.....	4,812,697	.....	.....	(2,995,436)	.....	.....	.....	.....
182824 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	98	50,960,630	5224.62000000	.....	4,132,939	(1,124,069)	3,008,871	.....	2,195,834	.....	.....	(1,124,069)	.....	.....	.....	.....
182831 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCEMIK50	.03/20/2024	.03/20/2025	.....	8,437,055	521.83000000	.....	534,066	(144,183)	389,883	.....	383,351	.....	.....	(144,183)	.....	.....	.....	.....
182832 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCUFXT09	.03/20/2024	.03/20/2025	.....	53,119,497	1426.80000000	.....	3,617,438	(976,609)	2,640,829	.....	4,304,072	.....	.....	(976,609)	.....	.....	.....	.....
182833 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA ES71P3U3RHHG71XBU11	.03/20/2024	.03/20/2025	.....	22,696,844	5224.62000000	.....	1,066,752	(287,994)	778,758	.....	461,731	.....	.....	(287,994)	.....	.....	.....	.....
182837 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.09/19/2025	7	3,657,234	5224.62000000	.....	384,013	(69,501)	314,512	.....	56,215	.....	.....	(69,501)	.....	.....	.....	.....
182839 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	99	51,723,738	5224.62000000	.....	4,194,828	(1,140,901)	3,053,927	.....	844,531	.....	.....	(1,140,901)	.....	.....	.....	.....
182843 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.03/20/2024	.03/20/2025	91	47,544,042	5224.62000000	.....	3,855,852	(1,048,707)	2,807,145	.....	1,085,258	.....	.....	(1,048,707)	.....	.....	.....	.....
183356 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.04/05/2024	.04/04/2025	2,419	52,037,123	215.14000000	.....	4,104,629	(920,983)	3,183,646	.....	1,414,198	.....	.....	(920,983)	.....	.....	.....	.....
183364 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.04/05/2024	.04/04/2025	257	2,029,902	78.97000000	.....	134,693	(30,222)	104,471	.....	63,681	.....	.....	(30,222)	.....	.....	.....	.....
183381 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.04/05/2024	.10/06/2025	3	1,561,302	5204.34000000	.....	167,997	(24,923)	143,074	.....	23,947	.....	.....	(24,923)	.....	.....	.....	.....
183385 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.04/05/2024	.04/04/2025	241	125,424,594	5204.34000000	.....	10,535,556	(2,363,934)	8,171,622	.....	1,872,854	.....	.....	(2,363,934)	.....	.....	.....	.....
183395 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.04/05/2024	.04/04/2025	107	55,686,438	5204.34000000	.....	4,677,612	(1,049,547)	3,628,065	.....	1,198,327	.....	.....	(1,049,547)	.....	.....	.....	.....
183413 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC ROYAL BANK OF CANADA G5GSEF7VJP5170UK5573	.04/05/2024	.04/04/2025	.....	648,438	266.23000000	.....	18,610	(4,136)	14,475	.....	11,358	.....	.....	(4,136)	.....	.....	.....	.....
183416 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.04/05/2024	.04/04/2025	.....	28,624,148	5204.34000000	.....	1,385,409	(307,869)	1,077,540	.....	561,125	.....	.....	(307,869)	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
183421 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	04/05/2024	04/04/2025	.....	30,140,606	87.19000000	.....	2,772,424	(616,094)	2,156,330	.....	870,076	.....	.....	(616,094)	.....	.....	.....	.....
183427 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	04/05/2024	04/04/2025	.....	11,325,091	520.20000000	.....	715,746	(159,055)	556,691	.....	565,552	.....	.....	(159,055)	.....	.....	.....	.....
183430 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	04/05/2024	04/04/2025	.....	56,267,973	1422.99000000	.....	3,809,342	(846,520)	2,962,821	.....	4,738,615	.....	.....	(846,520)	.....	.....	.....	.....
183443 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	04/05/2024	04/04/2025	.....	21,346,269	5204.34000000	.....	593,426	(131,873)	461,554	.....	950,792	.....	.....	(131,873)	.....	.....	.....	.....
183449 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	04/05/2024	04/06/2029	.....	30,875,127	5204.34000000	.....	1,664,169	(382,987)	1,281,182	.....	1,801,137	.....	.....	(382,987)	.....	.....	.....	.....
183452 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	04/05/2024	04/04/2031	.....	78,645,201	5204.34000000	.....	4,294,028	(988,215)	3,305,813	.....	3,550,854	.....	.....	(988,215)	.....	.....	.....	.....
183455 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/05/2024	04/04/2025	.....	97	5204.34000000	.....	4,240,539	(951,478)	3,289,061	.....	1,461,579	.....	.....	(951,478)	.....	.....	.....	.....
183467 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/05/2024	04/04/2025	.....	341	5204.34000000	.....	14,904,314	(3,344,181)	11,560,133	.....	6,351,541	.....	.....	(3,344,181)	.....	.....	.....	.....
183475 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/05/2024	04/04/2025	.....	97	5204.34000000	.....	4,240,452	(951,459)	3,288,993	.....	2,184,082	.....	.....	(951,459)	.....	.....	.....	.....
183477 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/05/2024	04/04/2025	.....	99	5204.34000000	.....	4,325,856	(970,621)	3,355,234	.....	3,028,896	.....	.....	(970,621)	.....	.....	.....	.....
183483 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/05/2024	04/04/2025	.....	100	5204.34000000	.....	4,371,600	(980,885)	3,390,715	.....	3,582,241	.....	.....	(980,885)	.....	.....	.....	.....
183621 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	04/12/2024	04/12/2025	.....	1,480,638	5161.54000000	.....	74,423	(15,050)	59,373	.....	110,771	.....	.....	(15,050)	.....	.....	.....	.....
183798 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/19/2024	04/17/2025	.....	1,812	221.03000000	.....	3,387,741	(630,496)	2,757,245	.....	928,223	.....	.....	(630,496)	.....	.....	.....	.....
183826 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/19/2024	10/20/2025	.....	4	4967.23000000	.....	224,520	(27,551)	196,969	.....	32,569	.....	.....	(27,551)	.....	.....	.....	.....
183827 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	04/19/2024	04/17/2025	.....	23,508,611	81.99000000	.....	2,234,826	(410,859)	1,823,967	.....	965,279	.....	.....	(410,859)	.....	.....	.....	.....
183836 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/19/2024	04/17/2025	.....	91	4967.23000000	.....	3,991,351	(742,835)	3,248,516	.....	1,167,433	.....	.....	(742,835)	.....	.....	.....	.....
183840 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A.	04/19/2024	04/20/2029	.....	28,050,131	4967.23000000	.....	1,528,732	(293,182)	1,235,551	.....	1,927,518	.....	.....	(293,182)	.....	.....	.....	.....
183844 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	04/19/2024	04/18/2031	.....	75,745,710	4967.23000000	.....	4,196,312	(804,772)	3,391,540	.....	3,856,321	.....	.....	(804,772)	.....	.....	.....	.....
183849 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/19/2024	04/17/2025	.....	128	4967.23000000	.....	5,630,875	(1,047,968)	4,582,907	.....	3,029,754	.....	.....	(1,047,968)	.....	.....	.....	.....
183851 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	04/19/2024	04/17/2025	.....	167,728	261.21000000	.....	4,797	(882)	3,915	.....	4,503	.....	.....	(882)	.....	.....	.....	.....
183858 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	04/19/2024	04/17/2025	.....	102,060,018	4967.23000000	.....	9,372,172	(1,723,018)	7,649,154	.....	1,648,329	.....	.....	(1,723,018)	.....	.....	.....	.....
183863 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	04/19/2024	04/17/2025	.....	245	76.12000000	.....	104,208	(20,095)	84,113	.....	79,729	.....	.....	(20,095)	.....	.....	.....	.....
183868 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	04/19/2024	04/17/2025	.....	7,633,998	514.38000000	.....	490,866	(90,243)	400,623	.....	468,662	.....	.....	(90,243)	.....	.....	.....	.....
183875 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	04/19/2024	04/17/2025		19,724,534	4967.23000000		968,854	(178,118)	790,736		453,305			(178,118)				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse		Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
183876 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6KMZ0031MB27	.04/19/2024	.04/17/2025	.....	48,817,145	1366.11000000	.....	3,353,738	(616,565)	2,737,173	.....	6,040,981	.....	.....	(616,565)	.....	.....	.....	.....
183880 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	31,442	261.21000000	.....	899	(165)	734	.....	859	.....	.....	(165)	.....	.....	.....	.....
183883 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	.04/19/2024	.04/17/2025	.....	14,850,913	4967.23000000	.....	374,243	(68,802)	305,441	.....	749,368	.....	.....	(68,802)	.....	.....	.....	.....
183885 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	SOCIETE GENERAL ...	02RNE81BXP4ROTDBPU41	.04/19/2024	.04/17/2025	.....	41,158,209	4967.23000000	.....	3,786,555	(696,136)	3,090,420	.....	1,350,199	.....	.....	(696,136)	.....	.....	.....	.....
183893 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	87,088,826	4967.23000000	.....	8,000,342	(1,470,815)	6,529,527	.....	3,507,140	.....	.....	(1,470,815)	.....	.....	.....	.....
183899 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	48,490,412	4967.23000000	.....	4,454,854	(818,998)	3,635,856	.....	2,536,071	.....	.....	(818,998)	.....	.....	.....	.....
183905 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	SOCIETE GENERAL ...	02RNE81BXP4ROTDBPU41	.04/19/2024	.04/17/2025	.....	69,345,795	4967.23000000	.....	6,379,813	(1,172,890)	5,206,923	.....	5,003,279	.....	.....	(1,172,890)	.....	.....	.....	.....
184304 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GCT1XBU11	.05/06/2024	.05/06/2025	.....	27,071,786	5180.74000000	.....	1,248,009	(175,340)	1,072,669	.....	569,824	.....	.....	(175,340)	.....	.....	.....	.....
184318 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUWSPFUM8MPR08K5P83	.05/06/2024	.05/06/2025	.....	18,406,314	5180.74000000	.....	517,217	(72,667)	444,551	.....	940,922	.....	.....	(72,667)	.....	.....	.....	.....
184324 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	E570DZVZ7FF32TWIFA76	.05/06/2024	.05/04/2029	.....	28,800,434	5180.74000000	.....	1,558,103	(226,245)	1,331,858	.....	1,534,330	.....	.....	(226,245)	.....	.....	.....	.....
184326 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	BFBMT61CT2L1QCEMIK50	.05/06/2024	.05/06/2025	.....	10,958,068	520.85000000	.....	701,316	(98,532)	602,784	.....	578,880	.....	.....	(98,532)	.....	.....	.....	.....
184328 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	.05/06/2024	.05/06/2025	.....	51,255,630	1412.21000000	.....	3,459,755	(486,081)	2,973,674	.....	4,918,918	.....	.....	(486,081)	.....	.....	.....	.....
184329 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A.	E570DZVZ7FF32TWIFA76	.05/06/2024	.05/06/2031	.....	80,553,405	5180.74000000	.....	4,406,271	(639,815)	3,766,457	.....	3,804,056	.....	.....	(639,815)	.....	.....	.....	.....
184330 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/06/2024	.05/06/2025	.....	86,118	264.16000000	.....	2,472	(347)	2,124	.....	1,903	.....	.....	(347)	.....	.....	.....	.....
184331 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.11/06/2025	.....	5	2,590,370	5180.74000000	.....	272,505	(25,858)	246,647	.....	39,722	.....	(25,858)	.....	.....	.....	.....
184342 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	.....	217	112,422,058	5180.74000000	.....	9,049,985	(1,292,855)	7,757,130	.....	1,679,784	.....	(1,292,855)	.....	.....	.....	.....
184349 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	.....	74	38,337,476	5180.74000000	.....	3,086,170	(440,881)	2,645,289	.....	866,995	.....	(440,881)	.....	.....	.....	.....
184350 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/06/2024	.05/06/2025	.....	1,049,949	264.16000000	.....	30,133	(4,234)	25,900	.....	22,916	.....	.....	(4,234)	.....	.....	.....	.....
184355 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/06/2024	.05/06/2025	.....	29,255,040	84.67000000	.....	2,624,464	(368,726)	2,255,738	.....	1,042,625	.....	.....	(368,726)	.....	.....	.....	.....
184366 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	.....	146	75,799,407	5180.74000000	.....	6,101,859	(871,694)	5,230,164	.....	2,388,370	.....	(871,694)	.....	.....	.....	.....
184367 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	.....	138	71,580,212	5180.74000000	.....	5,762,213	(823,173)	4,939,040	.....	3,114,579	.....	(823,173)	.....	.....	.....	.....
184379 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	.....	2,325	50,043,555	215.20000000	.....	4,018,367	(574,052)	3,444,315	.....	1,466,634	.....	(574,052)	.....	.....	.....	.....
184382 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	.....	109	56,349,873	5180.74000000	.....	4,536,169	(648,024)	3,888,145	.....	2,654,703	.....	(648,024)	.....	.....	.....	.....
184390 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025		162	83,678,535	5180.74000000		6,736,129	(962,304)	5,773,825		3,135,862		(962,304)				

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Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
184391 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	 163	 84,461,604	..5180.74000000	.....	.....6,799,166	 (971,309)	5,827,857	.....	.....5,417,435	.....	.....	..... (971,309)	.....	.....	.....	.....
184409 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	 275	 2,181,605	79.46000000	.....	.....144,690	 (20,670)	124,020	.....	.....74,278	.....	.....	..... (20,670)	.....	.....	.....	.....
184503 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8PRO8K5P83	.05/10/2024	.05/09/2025	.....	.....1,373,169	..5187.45000000	.....	.....67,888	 (8,486)	59,402	.....	.....106,457	.....	.....	..... (8,486)	.....	.....	.....	.....
184782 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.05/20/2024	.05/20/2025	.....	..... 22,448,288	..5308.13000000	.....	.....1,009,346	 (102,881)	906,465	.....	.....426,884	.....	.....	..... (102,881)	.....	.....	.....	.....
184796 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	.05/20/2024	.05/20/2025	.....	..... 14,507,073	..5308.13000000	.....	.....427,959	 (43,621)	384,338	.....	.....421,922	.....	.....	..... (43,621)	.....	.....	.....	.....
184810 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	84	 44,415,512	..5308.13000000	.....	.....3,486,633	 (363,989)	3,122,644	.....	.....1,824,830	.....	.....	..... (363,989)	.....	.....	.....	.....
184811 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.05/20/2024	.05/20/2025	.....	..... 1,231,870	266.78000000	.....	.....35,354	 (3,604)	31,751	.....	.....22,289	.....	.....	..... (3,604)	.....	.....	.....	.....
184823 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8PRO8K5P83	.05/20/2024	.05/20/2025	.....	..... 20,077,220	87.72000000	.....	.....1,741,498	 (177,508)	1,563,990	.....	.....631,550	.....	.....	..... (177,508)	.....	.....	.....	.....
184825 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	88	 46,688,188	..5308.13000000	.....	.....3,665,039	 (382,614)	3,282,425	.....	.....2,063,075	.....	.....	..... (382,614)	.....	.....	.....	.....
184840 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	96	 50,726,985	..5308.13000000	.....	.....3,982,085	 (415,712)	3,566,373	.....	.....2,375,022	.....	.....	..... (415,712)	.....	.....	.....	.....
184853 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	176	 93,341,449	..5308.13000000	.....	.....7,327,335	 (764,942)	6,562,394	.....	.....5,172,300	.....	.....	..... (764,942)	.....	.....	.....	.....
184854 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUJISFPUBM8PRO8K5P83	.05/20/2024	.05/18/2029	.....	..... 28,210,224	..5308.13000000	.....	.....1,514,889	 (161,865)	1,353,024	.....	.....1,321,848	.....	.....	..... (161,865)	.....	.....	.....	.....
184861 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	.05/20/2024	.05/20/2031	.....	..... 74,371,308	..5308.13000000	.....	.....4,082,985	 (436,264)	3,646,721	.....	.....3,049,219	.....	.....	..... (436,264)	.....	.....	.....	.....
184871 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	78	 41,246,506	..5308.13000000	.....	.....3,237,865	 (338,019)	2,899,846	.....	.....955,749	.....	.....	..... (338,019)	.....	.....	.....	.....
184872 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFM8T61CT2L1QCEMIK50	.05/20/2024	.05/20/2025	.....	..... 8,660,981	525.47000000	.....	.....555,169	 (56,587)	498,581	.....	.....409,138	.....	.....	..... (56,587)	.....	.....	.....	.....
184873 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A. B4TYDEB6GKMZ0031MB27	.05/20/2024	.05/20/2025	.....	..... 46,276,498	1439.08000000	.....	.....3,169,940	 (323,107)	2,846,833	.....	.....3,789,905	.....	.....	..... (323,107)	.....	.....	.....	.....
184881 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	1,977	 44,396,630	224.56000000	.....	.....3,681,267	 (384,308)	3,296,959	.....	.....961,795	.....	.....	..... (384,308)	.....	.....	.....	.....
184885 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	165	 87,603,891	..5308.13000000	.....	.....6,876,935	 (717,922)	6,159,013	.....	.....2,709,767	.....	.....	..... (717,922)	.....	.....	.....	.....
184895 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	91	 48,549,219	..5308.13000000	.....	.....3,811,130	 (397,865)	3,413,265	.....	.....1,887,863	.....	.....	..... (397,865)	.....	.....	.....	.....
184903 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	214	 1,746,988	81.70000000	.....	.....111,833	 (11,675)	100,158	.....	.....41,932	.....	.....	..... (11,675)	.....	.....	.....	.....
184909 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.11/20/2025	4	 2,123,252	..5308.13000000	.....	.....220,184	 (15,268)	204,916	.....	.....31,188	.....	.....	..... (15,268)	.....	.....	.....	.....
184913 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	201	106,693,413	..5308.13000000	.....	.....8,375,469	 (874,362)	7,501,107	.....	.....1,505,191	.....	.....	..... (874,362)	.....	.....	.....	.....
185335 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.06/06/2024	.06/06/2025	.....	..... 22,233,527	87.13000000	.....	.....1,877,040	 (93,592)	1,783,448	.....	.....732,601	.....	.....	..... (93,592)	.....	.....	.....	.....
185341 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	.06/06/2024	.06/06/2025	.....	..... 23,072,006	5352.96000000	.....	.....582,352	 (29,037)	553,315	.....	.....418,919	.....	.....	..... (29,037)	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
185345 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC BNP PARIBAS LONDON	06/06/2024	06/06/2025	.....	2,327,127	264.85000000	.....	66,790	(3,330)	63,459	.....	50,477	.....	.....	(3,330)	.....	.....	.....	.....
185349 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	 ROMUIISFPUBM8PRO8K5P83	06/06/2024	12/05/2025	.....	2,339,008	5352.96000000	.....	258,694	(8,576)	250,119	.....	33,493	.....	.....	(8,576)	.....	.....	.....	.....
185357 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	SOCIETE GENERAL ... JPMORGAN CHASE	06/06/2024	06/06/2025	.....	43,764,515	5352.96000000	.....	3,632,455	(181,120)	3,451,335	.....	0	.....	.....	(181,120)	.....	.....	.....	.....
185367 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK, N.A. 7H6GLXDRUGOFU57RNE97	06/06/2024	06/06/2025	.....	15,733,852	5352.96000000	.....	464,149	(23,143)	441,005	.....	589,679	.....	.....	(23,143)	.....	.....	.....	.....
185369 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE BNP PARIBAS LONDON	06/06/2024	06/06/2025	89	47,801,023	5352.96000000	.....	3,728,472	(215,104)	3,513,368	.....	1,785,846	.....	.....	(215,104)	.....	.....	.....	.....
185370 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	 ROMUIISFPUBM8PRO8K5P83	06/06/2024	06/06/2029	.....	31,638,823	5352.96000000	.....	1,695,841	(102,215)	1,593,626	.....	1,700,652	.....	.....	(102,215)	.....	.....	.....	.....
185372 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CITIBANK N.A. E570DZVZ7FF32TWEFA76	06/06/2024	06/06/2031	.....	92,684,199	5352.96000000	.....	5,069,826	(305,579)	4,764,247	.....	3,842,519	.....	.....	(305,579)	.....	.....	.....	.....
185378 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	2,351	51,587,980	219.43000000	.....	4,107,196	(236,954)	3,870,242	.....	1,391,486	.....	.....	(236,954)	.....	.....	.....	.....
185393 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	354	2,910,682	82.16000000	.....	183,512	(10,587)	172,925	.....	74,266	.....	.....	(10,587)	.....	.....	.....	.....
185407 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	96	51,351,481	5352.96000000	.....	4,005,407	(231,081)	3,774,326	.....	2,067,128	.....	.....	(231,081)	.....	.....	.....	.....
185410 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG BFMBT61CT2L1QCEMIK50	06/06/2024	06/06/2025	.....	9,212,548	523.47000000	.....	584,997	(29,169)	555,828	.....	482,471	.....	.....	(29,169)	.....	.....	.....	.....
185415 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	 ROMUIISFPUBM8PRO8K5P83	06/06/2024	06/06/2025	.....	56,652,620	1449.93000000	.....	3,846,713	(191,803)	3,654,910	.....	4,327,048	.....	.....	(191,803)	.....	.....	.....	.....
185416 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	222	118,835,712	5352.96000000	.....	9,269,166	(534,760)	8,734,406	.....	1,634,548	.....	.....	(534,760)	.....	.....	.....	.....
185418 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC G5GSEF7VJP5I70UK5573	06/06/2024	06/06/2025	.....	245,154	264.85000000	.....	7,036	(351)	6,685	.....	5,396	.....	.....	(351)	.....	.....	.....	.....
185425 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	209	111,675,486	5352.96000000	.....	8,710,670	(502,539)	8,208,131	.....	3,365,352	.....	.....	(502,539)	.....	.....	.....	.....
185434 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	95	51,005,893	5352.96000000	.....	3,978,451	(229,526)	3,748,925	.....	2,220,969	.....	.....	(229,526)	.....	.....	.....	.....
185444 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	115	61,522,105	5352.96000000	.....	4,798,714	(276,849)	4,521,865	.....	2,837,404	.....	.....	(276,849)	.....	.....	.....	.....
185455 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/06/2024	06/06/2025	145	77,403,802	5352.96000000	.....	6,037,484	(348,316)	5,689,167	.....	4,331,962	.....	.....	(348,316)	.....	.....	.....	.....
185735 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8PRO8K5P83	06/14/2024	06/13/2025	.....	1,090,737	5417.66000000	.....	49,658	(1,379)	48,279	.....	54,057	.....	.....	(1,379)	.....	.....	.....	.....
186119 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57RNE97	06/20/2024	06/20/2025	.....	13,491,957	5473.17000000	.....	399,362	(4,425)	394,937	.....	407,662	.....	.....	(4,425)	.....	.....	.....	.....
186120 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON ROMUIISFPUBM8PRO8K5P83	06/20/2024	06/20/2029	.....	22,181,244	5473.17000000	.....	1,191,133	(26,107)	1,165,026	.....	1,127,911	.....	.....	(26,107)	.....	.....	.....	.....
186121 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	 ROMUIISFPUBM8PRO8K5P83	06/20/2024	06/20/2031	.....	70,189,078	5473.17000000	.....	3,828,814	(83,919)	3,744,895	.....	3,169,978	.....	.....	(83,919)	.....	.....	.....	.....
186123 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/20/2024	06/20/2025	1,951	42,563,236	218.16000000	.....	3,392,807	(65,246)	3,327,560	.....	1,151,818	.....	.....	(65,246)	.....	.....	.....	.....
186136 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE 529900RLNSGA90UPEH54	06/20/2024	06/20/2025	212	1,667,313	78.50000000	.....	111,296	(2,140)	109,155	.....	60,979	.....	.....	(2,140)	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5		6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse		Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
186144 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.12/19/2025	 4	2,189,268	..5473.17000000	.....	.....223,304	 (2,863)	220,441	.....	.....30,015	.....	.....	..... (2,863)	.....	.....	.....	.....
186148 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 186	101,800,962	..5473.17000000	.....	.....7,920,066	 (152,309)	7,767,757	.....	.....1,306,581	.....	.....	..... (152,309)	.....	.....	.....	.....
186157 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.06/20/2024	.06/20/2025	.....	.....18,593,960	..86.77000000	.....	.....1,564,228	 (17,332)	1,546,896	.....	.....580,042	.....	.....	..... (17,332)	.....	.....	.....	.....
186158 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	75	40,876,370	..5473.17000000	.....	.....3,180,162	 (61,157)	3,119,005	.....	.....866,964	.....	.....	..... (61,157)	.....	.....	.....	.....
186173 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.06/20/2024	.06/20/2025	.....	.....1,692,752	..265.06000000	.....	.....48,581	 (538)	48,043	.....	.....38,115	.....	.....	..... (538)	.....	.....	.....	.....
186183 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3PHIGC71XBU11	.06/20/2024	.06/20/2025	.....	.....23,141,444	..5473.17000000	.....	.....1,087,648	 (12,052)	1,075,596	.....	.....348,218	.....	.....	..... (12,052)	.....	.....	.....	.....
186192 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	82	44,941,239	..5473.17000000	.....	.....3,496,407	 (67,239)	3,429,168	.....	.....1,886,366	.....	.....	..... (67,239)	.....	.....	.....	.....
186203 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	87	47,416,261	..5473.17000000	.....	.....3,688,962	 (70,942)	3,618,021	.....	.....1,688,193	.....	.....	..... (70,942)	.....	.....	.....	.....
186213 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	97	53,268,667	..5473.17000000	.....	.....4,144,277	 (79,698)	4,064,579	.....	.....2,046,259	.....	.....	..... (79,698)	.....	.....	.....	.....
186221 Call Options - S&P U.S. Retiree Spending Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	BFMBT61CT2L1QCEMIK50	.06/20/2024	.06/20/2025	.....	.....7,539,960	..522.02000000	.....	.....477,279	 (5,288)	471,991	.....	.....424,661	.....	.....	..... (5,288)	.....	.....	.....	.....
186222 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	104	56,794,319	..5473.17000000	.....	.....4,418,571	 (84,973)	4,333,598	.....	.....2,894,855	.....	.....	..... (84,973)	.....	.....	.....	.....
186223 Call Options - S&P Equal Weight Energy - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6GKMZ0031MB27	.06/20/2024	.06/20/2025	.....	.....48,963,458	..1479.53000000	.....	.....3,373,582	 (37,380)	3,336,202	.....	.....3,194,052	.....	.....	..... (37,380)	.....	.....	.....	.....
186226 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.06/20/2024	.06/20/2025	.....	.....86,399	..265.06000000	.....	.....2,480	 (27)	2,452	.....	.....1,911	.....	.....	..... (27)	.....	.....	.....	.....
186231 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	236	129,260,130	..5473.17000000	.....	.....10,056,376	 (193,392)	9,862,984	.....	.....3,620,310	.....	.....	..... (193,392)	.....	.....	.....	.....
0159999999. Subtotal - Purchased Options - Hedging Other - Call Options and Warrants											746,314,852	704,176,461	(491,131,982)	713,500,744	XXX	964,710,845	1,560,408	0	(524,735,896)	0	0	XXX	XXX
0219999999. Subtotal - Purchased Options - Hedging Other											746,314,852	704,176,461	(491,131,982)	713,500,744	XXX	964,710,845	1,560,408	0	(524,735,896)	0	0	XXX	XXX
0289999999. Subtotal - Purchased Options - Replications											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0359999999. Subtotal - Purchased Options - Income Generation											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0429999999. Subtotal - Purchased Options - Other											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0439999999. Total Purchased Options - Call Options and Warrants											746,314,852	704,176,461	(491,131,982)	713,500,744	XXX	964,710,845	1,560,408	0	(524,735,896)	0	0	XXX	XXX
0449999999. Subtotal - Purchased Options - Put Options											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0459999999. Total Purchased Options - Caps											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0469999999. Total Purchased Options - Floors											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0479999999. Total Purchased Options - Collars											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0489999999. Total Purchased Options - Other											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0499999999. Total Purchased Options											746,314,852	704,176,461	(491,131,982)	713,500,744	XXX	964,710,845	1,560,408	0	(524,735,896)	0	0	XXX	XXX
0569999999. Subtotal - Written Options - Hedging Effective Excluding Variable Annuity Guarantees Under SSAP No.108											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0639999999. Subtotal - Written Options - Hedging Effective Variable Annuity Guarantees Under SSAP No.108											0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
163387 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.01/06/2023	.07/05/2024	11	4,464,112	..4058.28385200	 (439,252)	.....	.....144,767	 (5,673)	.....	.....0	.....	.....	.....144,767	.....	.....	.....	.....
163955 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUWSPU8M1PR08K5P83	.01/20/2023	.07/19/2024	.....	.....4,217,308	..4143.03496900	 (399,368)	.....	.....131,547	 (15,474)	.....	.....0	.....	.....	.....131,547	.....	.....	.....	.....
164629 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6GKMZ0031MB27	.02/06/2023	.08/06/2024	.....	.....7,077,128	..4275.93430800	 (653,884)	.....	.....215,001	 (46,792)	.....	.....0	.....	.....	.....215,001	.....	.....	.....	.....
165238 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.02/17/2023	.08/20/2024	17	7,200,043	..4235.31914700	 (677,076)		221,111	 (65,723)		0			221,111				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
165835 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.03/06/2023	.09/06/2024	11	4,591,313	4173.92102000	(415,217)	135,793	(52,942)		0			135,793				
166444 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.03/20/2023	.09/20/2024	12	4,876,079	4063.39943100	(322,068)	105,314	(49,278)		0			105,314				
167377 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.04/06/2023	.10/04/2024		3,777,261	4217.90805000	(372,359)	121,916	(67,327)		0			121,916				
168018 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.04/20/2023	.10/18/2024	9	3,803,041	4225.60112800	(368,739)	121,202	(75,639)		0			121,202				
171017 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/05/2023	.11/06/2024	9	3,821,275	4245.86062500	(358,227)	116,559	(85,635)		0			116,559				
171637 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.05/19/2023	.11/20/2024		2,148,818	4313.54742000	(206,236)	66,976	(54,670)		0			66,976				
172359 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2023	.12/06/2024	10	4,395,658	4395.65848500	(401,140)	131,307	(117,853)		0			131,307				
172893 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2023	.12/20/2024	8	3,617,350	4521.68791300	(323,112)	105,750	(103,184)		0			105,750				
173441 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.07/06/2023	.07/05/2024		36,493,163	4558.05000000	(2,390,142)	1,178,192	(46,346)		0			1,178,192				
173454 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.07/06/2023	.07/05/2024		41,828,061	4585.85000000	(2,568,028)	1,265,879	(49,796)		0			1,265,879				
173465 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.07/06/2023	.07/05/2024		33,471,370	4599.96000000	(1,945,303)	958,914	(37,721)		0			958,914				
173479 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.07/06/2023	.07/05/2024		66,806,951	4601.29000000	(3,952,690)	1,948,432	(76,645)		0			1,948,432				
173487 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.07/06/2023	.07/05/2024		48,623,204	4621.14000000	(2,682,980)	1,322,543	(52,025)		0			1,322,543				
173499 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.07/06/2023	.07/05/2024		61,473,203	4660.40000000	(3,072,499)	1,514,552	(59,578)		0			1,514,552				
173505 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	W22LR0WP21HZNB6K528	.07/06/2023	.07/05/2024		55,215,881	189.40000000	(2,586,511)	1,274,990	(50,154)		0			1,274,990				
173512 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.07/06/2023	.07/05/2024		55,416,456	4695.26000000	(2,520,111)	1,242,259	(48,866)		0			1,242,259				
173519 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	W22LR0WP21HZNB6K528	.07/06/2023	.07/05/2024		27,187,068	92.33000000	(1,292,268)	637,008	(25,058)		0			637,008				
173523 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6QKMZ0031MB27	.07/06/2023	.07/05/2024		96,092,490	4749.96000000	(3,807,286)	1,876,757	(73,825)		0			1,876,757				
173533 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6QKMZ0031MB27	.07/06/2023	.07/05/2024		64,395,998	4801.13000000	(2,198,803)	1,083,874	(42,636)		0			1,083,874				
173547 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.07/06/2023	.01/06/2025	9	4,066,515	4518.35000000	(385,812)	126,020	(134,929)		0			126,020				
173554 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.07/06/2023	.07/05/2024		93,915,579	4499.82000000	(6,999,476)	3,450,309	(135,724)		0			3,450,309				
173557 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.07/06/2023	.07/05/2024		74,752,790	4500.26000000	(5,566,342)	2,743,863	(107,935)		0			2,743,863				
173561 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.07/06/2023	.07/05/2024	389	2,927,156	75.25000000	(85,967)	42,390	(1,653)		0			42,390				
173569 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.07/06/2023	.07/05/2024		28,762,055	4531.59000000	(870,813)	429,257	(16,886)		0			429,257				
174112 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUIWSPU8MPR08K5P83	.07/20/2023	.07/19/2024		76,848,499	4636.45000000	(5,360,004)	2,639,873	(311,801)		0			2,639,873				
174123 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024		61,334,731	4723.07000000	(3,476,421)	1,712,183	(202,229)		0			1,712,183				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amorti-zation)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)	
174140 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	56,886,944	..4744.83000000	(3,056,721)	.....	1,505,475	(177,815)	.....	0	.....	.....	1,505,475	.....	.....	.....	.....
174151 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	52,063,689	..4787.01000000	(2,514,033)	.....	1,238,194	(146,246)	.....	0	.....	.....	1,238,194	.....	.....	.....	.....
174154 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	55,139,280	..4840.52000000	(2,306,063)	.....	1,135,766	(134,148)	.....	0	.....	.....	1,135,766	.....	.....	.....	.....
174158 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.07/20/2023	.07/19/2024	.....	54,983,619	..4902.19000000	(1,925,070)	.....	948,122	(111,985)	.....	0	.....	.....	948,122	.....	.....	.....	.....
174166 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6KMZ0031MB27	.07/20/2023	.07/19/2024	.....	34,180,959	..4978.38000000	(852,189)	.....	419,714	(49,573)	.....	0	.....	.....	419,714	.....	.....	.....	.....
174167 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	UBS AG	BFM8T61CT2L10CEMIK50	.07/20/2023	.07/19/2024	.....	21,782,054	..94.20000000	(1,144,853)	.....	563,855	(66,598)	.....	0	.....	.....	563,855	.....	.....	.....	.....
174173 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMJWSFPUBMPRO8K5P83	.07/20/2023	.07/19/2024	.....	87,622,627	..4624.21000000	(6,278,028)	.....	3,092,011	(365,204)	.....	0	.....	.....	3,092,011	.....	.....	.....	.....
174180 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCJFXT09	.07/20/2023	.07/19/2024	.....	24,961,962	..4660.03000000	(728,746)	.....	358,917	(42,392)	.....	0	.....	.....	358,917	.....	.....	.....	.....
174186 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.07/20/2023	.01/17/2025	.....	3,642,196	..4652.78000000	(323,289)	.....	106,164	(120,197)	.....	0	.....	.....	106,164	.....	.....	.....	.....
174187 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.07/20/2023	.07/19/2024	.....	41,392,131	..194.97000000	(1,951,037)	.....	961,847	(112,560)	.....	0	.....	.....	961,847	.....	.....	.....	.....
174191 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.07/20/2023	.07/19/2024	.....	2,657,018	..78.61000000	(75,374)	.....	37,159	(4,349)	.....	0	.....	.....	37,159	.....	.....	.....	.....
174197 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.07/20/2023	.07/19/2024	.....	48,409,382	..4699.94000000	(2,731,148)	.....	1,346,436	(157,566)	.....	0	.....	.....	1,346,436	.....	.....	.....	.....
174680 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	46,555,554	..191.94000000	(2,185,399)	.....	1,067,042	(233,508)	.....	0	.....	.....	1,067,042	.....	.....	.....	.....
174692 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	22,333,910	..90.87000000	(999,582)	.....	488,055	(106,805)	.....	0	.....	.....	488,055	.....	.....	.....	.....
174701 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.02/06/2025	.....	5,059,813	..4599.83000000	(463,023)	.....	149,964	(188,077)	.....	0	.....	.....	149,964	.....	.....	.....	.....
174710 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	52,072,488	..4619.98000000	(3,263,561)	.....	1,593,465	(348,709)	.....	0	.....	.....	1,593,465	.....	.....	.....	.....
174718 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	48,857,825	..4646.40000000	(2,874,225)	.....	1,403,367	(307,109)	.....	0	.....	.....	1,403,367	.....	.....	.....	.....
174729 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	50,735,365	..4662.08000000	(2,872,343)	.....	1,402,448	(306,908)	.....	0	.....	.....	1,402,448	.....	.....	.....	.....
174736 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	48,162,388	..4675.96000000	(2,632,783)	.....	1,285,481	(281,311)	.....	0	.....	.....	1,285,481	.....	.....	.....	.....
174745 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	49,182,766	..4694.32000000	(2,565,942)	.....	1,252,845	(274,169)	.....	0	.....	.....	1,252,845	.....	.....	.....	.....
174758 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	48,998,556	..4739.99000000	(2,263,655)	.....	1,105,251	(241,870)	.....	0	.....	.....	1,105,251	.....	.....	.....	.....
174768 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	56,388,151	..4786.12000000	(2,286,573)	.....	1,116,441	(244,319)	.....	0	.....	.....	1,116,441	.....	.....	.....	.....
174772 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	53,777,058	..4844.78000000	(1,825,728)	.....	891,429	(195,078)	.....	0	.....	.....	891,429	.....	.....	.....	.....
174775 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.08/04/2023	.08/06/2024	.....	33,450,016	..4919.12000000	(887,332)	.....	433,248	(94,811)	.....	0	.....	.....	433,248	.....	.....	.....	.....
174792 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	GOLDMAN SACHS INTERNATIONAL	W22LR0WP21HZNB6K528	.08/04/2023	.08/06/2024		2,596,930	..76.99000000	(103,754)		50,629	(11,117)		0			50,629				

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174802 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	.08/04/2023	.08/06/2024		91,665,355	..4566.25000000	 (6,886,808)		3,360,527	 (737,872)		0			3,360,527				
174820 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	.08/04/2023	.08/06/2024	.....	72,264,589	..4570.28000000	 (5,382,668)	.....	2,626,558	 (576,714)	.....	0	.....	.....	2,626,558	.....	.....	.....	.....
174824 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	.08/04/2023	.08/06/2024	.....	33,184,814	..4602.97000000	 (924,787)	.....	451,264	 (99,084)	.....	0	.....	.....	451,264	.....	.....	.....	.....
175356 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA	.08/18/2023	.08/20/2024	.....	2,161,933	..75.39000000	 (85,519)	.....	41,694	 (12,452)	.....	0	.....	.....	41,694	.....	.....	.....	.....
175375 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	141	64,030,807	..4552.80000000	 (3,982,236)	.....	1,943,119	 (578,242)	.....	0	.....	.....	1,943,119	.....	.....	.....	.....
175386 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	111	50,841,663	..4580.33000000	 (2,968,362)	.....	1,448,402	 (431,022)	.....	0	.....	.....	1,448,402	.....	.....	.....	.....
175388 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	.08/18/2023	.08/20/2024	.....	26,977,271	..4489.88000000	 (872,510)	.....	425,390	 (127,041)	.....	0	.....	.....	425,390	.....	.....	.....	.....
175395 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	120	55,630,723	..4630.58000000	 (2,876,817)	.....	1,403,734	 (417,730)	.....	0	.....	.....	1,403,734	.....	.....	.....	.....
175403 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	114	53,566,656	..4703.12000000	 (2,299,332)	.....	1,121,952	 (333,876)	.....	0	.....	.....	1,121,952	.....	.....	.....	.....
175409 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	116	55,661,208	..4798.38000000	 (1,829,784)	.....	892,837	 (265,695)	.....	0	.....	.....	892,837	.....	.....	.....	.....
175416 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	1,808	33,817,213	..187.08000000	 (1,541,912)	.....	752,371	 (223,894)	.....	0	.....	.....	752,371	.....	.....	.....	.....
175423 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	2,062	18,199,316	..88.24000000	 (860,054)	.....	419,660	 (124,885)	.....	0	.....	.....	419,660	.....	.....	.....	.....
175427 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.02/20/2025	9	4,035,384	..4483.76000000	 (394,659)	.....	127,767	 (170,372)	.....	0	.....	.....	127,767	.....	.....	.....	.....
175433 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	158	70,401,482	..4455.79000000	 (5,392,066)	.....	2,631,041	 (782,958)	.....	0	.....	.....	2,631,041	.....	.....	.....	.....
175435 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	143	63,805,313	..4461.91000000	 (4,830,254)	.....	2,356,906	 (701,379)	.....	0	.....	.....	2,356,906	.....	.....	.....	.....
175441 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.08/18/2023	.08/20/2024	141	63,785,139	..4522.21000000	 (4,246,550)	.....	2,070,396	 (618,316)	.....	0	.....	.....	2,070,396	.....	.....	.....	.....
175964 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	2,069	39,243,910	..189.71000000	 (1,793,499)	.....	881,109	 (343,959)	.....	0	.....	.....	881,109	.....	.....	.....	.....
175970 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	2,363	21,065,107	..89.13000000	 (954,819)	.....	469,083	 (183,116)	.....	0	.....	.....	469,083	.....	.....	.....	.....
175978 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	219	1,650,784	..75.37000000	 (51,033)	.....	25,071	 (9,787)	.....	0	.....	.....	25,071	.....	.....	.....	.....
175982 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.03/06/2025	9	4,138,290	..4598.10000000	 (375,039)	.....	123,098	 (172,408)	.....	0	.....	.....	123,098	.....	.....	.....	.....
175988 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	159	72,392,700	..4553.00000000	 (5,380,401)	.....	2,643,280	 (1,031,858)	.....	0	.....	.....	2,643,280	.....	.....	.....	.....
175991 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	152	69,273,544	..4557.47000000	 (5,100,816)	.....	2,505,925	 (978,239)	.....	0	.....	.....	2,505,925	.....	.....	.....	.....
175994 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	81	37,302,525	..4605.25000000	 (2,478,357)	.....	1,217,565	 (475,301)	.....	0	.....	.....	1,217,565	.....	.....	.....	.....
176000 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	112	51,986,868	..4636.51000000	 (3,220,342)	.....	1,582,087	 (617,600)	.....	0	.....	.....	1,582,087	.....	.....	.....	.....
176010 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.09/06/2023	.09/06/2024	112	51,931,537	..4653.03000000	 (3,096,899)		1,521,442	 (583,926)		0			1,521,442				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
176018 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/06/2023	09/06/2024	107	49,824,780	4668.66000000	(2,864,093)	1,407,070	(549,278)		0			1,407,070				
176029 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/06/2023	09/06/2024	105	49,296,573	4699.02000000	(2,634,560)	1,294,305	(505,258)		0			1,294,305				
176041 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/06/2023	09/06/2024	112	52,950,334	4745.47000000	(2,519,160)	1,237,611	(483,127)		0			1,237,611				
176050 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/06/2023	09/06/2024	115	55,450,957	4803.96000000	(2,257,071)	1,108,852	(432,863)		0			1,108,852				
176055 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/06/2023	09/06/2024	94	45,812,028	4873.62000000	(1,527,030)	750,198	(292,855)		0			750,198				
176057 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/06/2023	09/06/2024	84	41,636,112	4956.68000000	(1,072,764)	527,027	(205,736)		0			527,027				
176066 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	09/06/2023	09/06/2024		30,086,412	4595.43000000	(906,304)	444,771	(174,289)		0			444,771				
176718 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	1,743	33,340,776	191.29000000	(1,450,129)	712,267	(333,728)		0			712,267				
176724 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	2,178	19,313,853	88.68000000	(821,078)	403,293	(188,960)		0			403,293				
176732 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	161	1,221,453	75.69000000	(37,439)	18,389	(8,616)		0			18,389				
176737 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	03/20/2025	14	6,312,838	4509.17000000	(594,622)	195,143	(288,599)		0			195,143				
176740 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	145	65,082,960	4488.48000000	(4,647,685)	2,282,824	(1,069,604)		0			2,282,824				
176747 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	141	63,349,749	4492.89000000	(4,481,544)	2,201,220	(1,031,369)		0			2,201,220				
176750 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	122	55,500,606	4549.23000000	(3,465,776)	1,702,301	(797,603)		0			1,702,301				
176759 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	123	56,519,413	4579.17000000	(3,293,778)	1,617,820	(758,020)		0			1,617,820				
176771 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	104	47,853,089	4597.66000000	(2,668,959)	1,310,925	(614,226)		0			1,310,925				
176777 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	111	51,416,485	4646.52000000	(2,544,311)	1,249,701	(585,540)		0			1,249,701				
176783 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	106	49,631,086	4704.19000000	(2,115,566)	1,039,112	(486,870)		0			1,039,112				
176788 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	111	53,301,312	4801.92000000	(1,728,381)	848,937	(397,764)		0			848,937				
176791 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	09/20/2023	09/20/2024	77	37,717,141	4898.33000000	(914,529)	449,193	(210,467)		0			449,193				
176835 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	09/20/2023	09/20/2024		28,919,784	4521.06000000	(887,023)	435,122	(204,698)		0			435,122				
177509 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	04/04/2025	10	4,406,730	4406.73000000	(327,970)	106,881	(169,431)		0			106,881				
177512 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	106	46,610,956	4397.26000000	(3,523,440)	1,731,820	(959,159)		0			1,731,820				
177516 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	118	52,218,068	4425.26000000	(3,722,074)	1,829,452	(1,013,231)		0			1,829,452				
177525 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	124	55,343,432	4463.18000000	(3,632,456)	1,785,403	(988,835)		0			1,785,403				
177539 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	99	44,525,404	4478.25000000	(2,825,585)	1,388,815	(769,187)		0			1,388,815				
177551 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	108	48,728,674	4491.18000000	(3,002,590)	1,475,815	(817,372)		0			1,475,815				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
177564 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	122	54,940,575	4520.05000000	(3,168,407)	1,557,317	(862,511)		0			1,557,317				
177573 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	108	49,250,288	4570.89000000	(2,509,228)	1,233,321	(683,068)		0			1,233,321				
177584 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	114	54,060,533	4727.72000000	(1,797,322)	883,409	(489,271)		0			883,409				
177592 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/06/2023	10/04/2024	200	88,210,888	4406.73000000	(2,390,344)	1,174,888	(650,705)		0			1,174,888				
177595 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	10/06/2023	10/04/2024		75,395,167	4393.81000000	(5,955,076)	2,922,488	(1,625,620)		0			2,922,488				
177601 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	10/06/2023	10/04/2024		32,853,853	4432.58000000	(1,121,326)	550,297	(306,100)		0			550,297				
177483 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/09/2023	10/04/2024	2,242	40,759,916	181.77000000	(1,791,669)	893,353	(486,381)		0			893,353				
177493 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/09/2023	10/04/2024	2,775	22,553,742	81.28000000	(1,148,776)	572,797	(311,856)		0			572,797				
177502 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/09/2023	10/04/2024	232	1,691,233	72.95000000	(70,014)	34,910	(19,007)		0			34,910				
177906 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	10/18/2024	1,637	32,176,827	196.61000000	(1,718,410)	845,369	(533,136)		0			845,369				
177928 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	10/18/2024	86	606,582	70.30000000	(27,525)	13,541	(8,540)		0			13,541				
177934 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	04/17/2025	10	4,448,890	4448.89000000	(365,680)	119,687	(197,683)		0			119,687				
177940 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	10/18/2024	138	59,919,738	4342.01000000	(4,414,482)	2,171,698	(1,369,590)		0			2,171,698				
177954 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	10/18/2024	104	45,675,750	4381.72000000	(3,088,887)	1,519,573	(958,325)		0			1,519,573				
177964 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	10/18/2024	147	64,642,520	4405.38000000	(4,146,009)	2,039,623	(1,286,296)		0			2,039,623				
177975 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	10/20/2023	10/18/2024	104	46,869,851	4525.34000000	(2,243,473)	1,103,673	(696,036)		0			1,103,673				
177995 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGQFU57RNE97	10/20/2023	10/18/2024		17,501,522	79.38000000	(1,053,116)	517,171	(327,636)		0			517,171				
178006 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJSPFUB8MPRO8K5P83	10/20/2023	10/18/2024		74,430,160	4309.49000000	(6,102,803)	2,997,006	(1,898,650)		0			2,997,006				
178020 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJSPFUB8MPRO8K5P83	10/20/2023	10/18/2024		55,299,835	4445.93000000	(3,396,801)	1,668,124	(1,056,783)		0			1,668,124				
178028 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6KMGZ0031MB27	10/20/2023	10/18/2024		53,685,884	4647.84000000	(1,858,978)	912,919	(578,349)		0			912,919				
178033 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BANK OF AMERICA, N.A.	B4TYDEB6KMGZ0031MB27	10/20/2023	10/18/2024		89,868,700	4705.29000000	(2,605,943)	1,279,744	(810,738)		0			1,279,744				
178037 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCJFXTO9	10/20/2023	10/18/2024		24,381,131	4369.05000000	(832,112)	408,639	(258,879)		0			408,639				
178395 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XB011	11/06/2023	05/06/2025		4,943,180	4588.64000000	(392,727)	128,412	(224,827)		0			128,412				
178399 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJSPFUB8MPRO8K5P83	11/06/2023	11/06/2024		53,593,842	4526.21000000	(3,384,576)	1,657,889	(1,218,075)		0			1,657,889				
178412 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJSPFUB8MPRO8K5P83	11/06/2023	11/06/2024		51,973,243	4545.42000000	(3,141,060)	1,538,606	(1,130,436)		0			1,538,606				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
178428 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	.11/06/2023	.11/06/2024	.....	45,055,055	..4568.56000000	(2,579,558)	.....	1,263,562	(928,357)	.....	0	.....	.....	1,263,562	.....	.....	.....	.....
178434 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	.11/06/2023	.11/06/2024	.....	54,608,924	..4610.47000000	(2,823,533)	.....	1,383,070	(1,016,161)	.....	0	.....	.....	1,383,070	.....	.....	.....	.....
178439 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	.11/06/2023	.11/06/2024	.....	35,615,703	..4656.75000000	(1,636,534)	.....	801,634	(588,972)	.....	0	.....	.....	801,634	.....	.....	.....	.....
178464 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	1,872	36,728,466	..196.18000000	(1,692,453)	.....	830,694	(607,428)	.....	0	.....	.....	830,694	.....	.....	.....	.....
178474 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	2,602	21,790,092	..83.74000000	(1,215,187)	.....	596,441	(436,135)	.....	0	.....	.....	596,441	.....	.....	.....	.....
178484 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	146	1,080,284	..74.03000000	(40,713)	.....	19,983	(14,612)	.....	0	.....	.....	19,983	.....	.....	.....	.....
178506 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	WELLS FARGO BANK, N.A.	.11/06/2023	.11/06/2024	.....	32,945,129	..4510.93000000	(918,331)	.....	449,832	(330,498)	.....	0	.....	.....	449,832	.....	.....	.....	.....
178511 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	134	59,662,562	..4452.43000000	(4,259,056)	.....	2,090,441	(1,528,593)	.....	0	.....	.....	2,090,441	.....	.....	.....	.....
178513 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	134	59,709,328	..4455.92000000	(4,230,380)	.....	2,076,366	(1,518,301)	.....	0	.....	.....	2,076,366	.....	.....	.....	.....
178515 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	187	83,937,942	..4488.66000000	(5,528,094)	.....	2,713,314	(1,984,056)	.....	0	.....	.....	2,713,314	.....	.....	.....	.....
178524 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	183	87,853,894	..4792.97000000	(2,520,706)	.....	1,237,220	(904,692)	.....	0	.....	.....	1,237,220	.....	.....	.....	.....
178528 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	113	54,772,343	..4847.11000000	(1,308,314)	.....	642,150	(469,559)	.....	0	.....	.....	642,150	.....	.....	.....	.....
178530 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/06/2023	.11/06/2024	95	46,429,160	..4887.28000000	(960,165)	.....	471,271	(344,607)	.....	0	.....	.....	471,271	.....	.....	.....	.....
178951 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	1,753	34,202,819	..195.12000000	(1,572,362)	.....	771,586	(624,637)	.....	0	.....	.....	771,586	.....	.....	.....	.....
178972 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	1,852	16,148,493	..87.21000000	(798,074)	.....	391,629	(317,043)	.....	0	.....	.....	391,629	.....	.....	.....	.....
178980 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	188	1,455,350	..77.43000000	(37,028)	.....	18,170	(14,710)	.....	0	.....	.....	18,170	.....	.....	.....	.....
178989 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	110	52,057,815	..4749.74000000	(2,717,238)	.....	1,333,397	(1,079,451)	.....	0	.....	.....	1,333,397	.....	.....	.....	.....
178990 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	05/20/2025	7	3,254,153	..4648.79000000	(292,215)	.....	95,840	(174,473)	.....	0	.....	.....	95,840	.....	.....	.....	.....
179011 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	111	52,996,616	..4786.57000000	(2,515,877)	.....	1,234,586	(999,458)	.....	0	.....	.....	1,234,586	.....	.....	.....	.....
179017 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	156	72,350,772	..4637.87000000	(4,909,632)	.....	2,409,244	(1,950,402)	.....	0	.....	.....	2,409,244	.....	.....	.....	.....
179024 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	122	56,632,034	..4641.97000000	(3,808,596)	.....	1,868,946	(1,513,004)	.....	0	.....	.....	1,868,946	.....	.....	.....	.....
179029 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	90	43,738,591	..4882.52000000	(1,589,901)	.....	780,193	(631,605)	.....	0	.....	.....	780,193	.....	.....	.....	.....
179032 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	105	49,683,512	..4718.82000000	(2,796,133)	.....	1,372,113	(1,110,793)	.....	0	.....	.....	1,372,113	.....	.....	.....	.....
179041 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	121	61,078,269	..5036.22000000	(1,351,765)	.....	663,335	(537,002)	.....	0	.....	.....	663,335	.....	.....	.....	.....
179052 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	.11/20/2023	.11/20/2024	83	42,204,504	..5084.88000000	(782,773)	.....	384,121	(310,965)	.....	0	.....	.....	384,121	.....	.....	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
179059 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XB	11/20/2023	11/20/2024	28,495,108	4666.98000000	(819,064)		401,035	(326,275)		0			401,035				
179102 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP517OUK5573	11/20/2023	11/20/2024	61,265,462	4674.71000000	(3,998,194)		1,957,622	(1,592,687)		0			1,957,622				
179453 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	1,842	199.96000000	(1,854,664)		909,895	(818,085)		0			909,895				
179462 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	1,878	91.56000000	(852,480)		418,225	(376,026)		0			418,225				
179470 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	06/06/2025	7	4658.52000000	(288,078)		94,295	(180,641)		0			94,295				
179473 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	142	4638.96000000	(4,457,380)		2,186,782	(1,966,132)		0			2,186,782				
179481 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	132	4678.09000000	(3,824,040)		1,876,067	(1,686,768)		0			1,876,067				
179494 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	107	4723.12000000	(2,813,969)		1,380,528	(1,241,230)		0			1,380,528				
179513 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	118	4752.24000000	(2,906,753)		1,426,047	(1,282,157)		0			1,426,047				
179526 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	111	4786.36000000	(2,513,306)		1,233,023	(1,108,609)		0			1,233,023				
179530 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XB	12/06/2023	12/06/2024	22,943,172	4670.35000000	(679,401)		332,489	(300,504)		0			332,489				
179534 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	108	4824.12000000	(2,233,548)		1,095,774	(985,209)		0			1,095,774				
179540 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	79	4988.81000000	(1,025,402)		503,060	(452,301)		0			503,060				
179548 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/06/2023	12/06/2024	146	5070.69000000	(1,437,370)		705,171	(634,018)		0			705,171				
179555 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHN3JPF6FNF3B8653	12/06/2023	12/06/2024	49,682,015	4643.97000000	(3,520,620)		1,722,943	(1,557,198)		0			1,722,943				
179565 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPPFMYMCUFXT09	12/06/2023	12/06/2024	725,965	77.86000000	(25,103)		12,285	(11,103)		0			12,285				
180055 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	91	4883.93000000	(2,524,801)		1,238,398	(1,210,521)		0			1,238,398				
180069 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	219	4925.75000000	(5,582,300)		2,738,081	(2,676,445)		0			2,738,081				
180070 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP517OUK5573	12/20/2023	12/20/2024	23,431,337	4826.61000000	(675,904)		330,636	(324,954)		0			330,636				
180079 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	96	4983.07000000	(2,155,104)		1,057,064	(1,033,269)		0			1,057,064				
180087 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	72	5139.99000000	(1,096,002)		537,582	(525,481)		0			537,582				
180095 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	107	5233.02000000	(1,258,748)		617,407	(603,509)		0			617,407				
180099 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	1,722	200.50000000	(1,668,846)		818,558	(800,132)		0			818,558				
180122 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	1,794	95.06000000	(805,674)		395,178	(386,282)		0			395,178				
180128 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	06/20/2025	7	4802.65000000	(292,474)		95,720	(190,883)		0			95,720				

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
180134 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	127	60,844,557	4790.91000000	(4,239,514)	2,079,453	(2,032,644)		0			2,079,453				
180137 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	149	71,587,497	4804.53000000	(4,848,609)	2,378,210	(2,324,676)		0			2,378,210				
180151 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	12/20/2023	12/20/2024	93	45,044,829	4843.53000000	(2,807,391)	1,377,006	(1,346,009)		0			1,377,006				
180161 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHIGC71XBU11	12/20/2023	12/20/2024		992,396	78.89000000	(32,070)	15,688	(15,418)		0			15,688				
180490 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	W22LR0WP21HZNB6K528	01/05/2024	01/06/2025		39,395,081	201.11000000	(1,895,753)	893,041	(1,002,713)		0			893,041				
180501 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJSPFUM8MPRO8K5P83	01/05/2024	01/06/2025		49,351,528	4841.45000000	(3,114,693)	1,467,252	(1,647,441)		0			1,467,252				
180509 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUJSPFUM8MPRO8K5P83	01/05/2024	01/06/2025		44,954,577	4881.37000000	(2,598,126)	1,223,911	(1,374,216)		0			1,223,911				
180519 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	1,835	17,440,821	95.04000000	(851,488)	402,351	(449,136)		0			402,351				
180531 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	151	1,189,662	78.98000000	(37,356)	17,652	(19,704)		0			17,652				
180538 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	01/05/2024	01/06/2025		38,526,930	5124.22000000	(1,208,098)	569,104	(638,994)		0			569,104				
180543 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	07/03/2025	7	3,371,585	4816.55000000	(288,197)	91,457	(196,740)		0			91,457				
180547 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	143	68,493,854	4789.78000000	(4,579,718)	2,164,043	(2,415,675)		0			2,164,043				
180548 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	01/05/2024	01/06/2025		25,436,732	4824.07000000	(675,506)	318,213	(357,292)		0			318,213				
180561 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	127	60,991,242	4802.46000000	(3,967,734)	1,874,863	(2,092,871)		0			1,874,863				
180565 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	216	106,318,475	4922.71000000	(5,230,711)	2,471,654	(2,759,056)		0			2,471,654				
180576 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	97	48,173,078	4984.24000000	(2,022,998)	955,922	(1,067,076)		0			955,922				
180580 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/05/2024	01/06/2025	110	57,275,790	5206.89000000	(1,218,360)	575,709	(642,651)		0			575,709				
180800 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	95	47,689,965	5038.24000000	(2,389,496)	1,045,818	(1,343,678)		0			1,045,818				
180819 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	125	63,412,070	5075.02000000	(2,896,577)	1,267,754	(1,628,823)		0			1,267,754				
180829 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	95	48,411,652	5121.49000000	(1,954,808)	855,567	(1,099,241)		0			855,567				
180842 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	01/19/2024	01/17/2025	151	80,112,124	5292.82000000	(1,920,758)	840,664	(1,080,094)		0			840,664				
180850 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHN3JPF6GFNF3B8653	01/19/2024	01/17/2025		60,131,769	4948.71000000	(3,643,146)	1,588,816	(2,054,330)		0			1,588,816				
180862 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	01/19/2024	01/17/2025		19,282,482	4968.06000000	(479,026)	208,909	(270,118)		0			208,909				
180865 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHN3JPF6GFNF3B8653	01/19/2024	01/17/2025		44,422,532	4988.39000000	(2,454,480)	1,070,426	(1,384,054)		0			1,070,426				

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Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
180871 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.01/19/2024	01/17/2025	1,573	31,441,683	199.86000000	(1,356,086)	593,522	(762,563)		0			593,522				
180877 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.01/19/2024	01/17/2025	1,750	16,356,385	93.49000000	(762,796)	333,856	(428,941)		0			333,856				
180889 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.01/19/2024	01/17/2025	228	1,813,298	79.42000000	(47,490)	20,785	(26,705)		0			20,785				
180894 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.01/19/2024	07/18/2025	6	2,966,610	4944.35000000	(252,342)	73,425	(178,917)		0			73,425				
180901 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.01/19/2024	01/17/2025	122	60,214,808	4935.64000000	(3,830,800)	1,676,638	(2,154,162)		0			1,676,638				
181322 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	2,448	49,031,288	200.33000000	(2,019,209)	785,555	(1,233,654)		0			785,555				
181346 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	2,753	25,299,150	91.90000000	(1,194,759)	464,810	(729,948)		0			464,810				
181357 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	324	2,642,747	81.47000000	(59,038)	22,968	(36,070)		0			22,968				
181365 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	158	79,818,914	5051.83000000	(5,094,236)	1,981,867	(3,112,369)		0			1,981,867				
181372 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	135	68,366,835	5064.21000000	(4,250,340)	1,653,557	(2,596,783)		0			1,653,557				
181381 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	96	49,001,664	5104.34000000	(2,790,336)	1,085,555	(1,704,781)		0			1,085,555				
181390 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHNSJPFQGNF3BB653	.02/06/2024	02/06/2025		25,709,259	5082.05000000		0	0		0							
181391 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	107	55,189,902	5165.78000000	(2,728,523)	1,061,508	(1,667,015)		0			1,061,508				
181401 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	120	63,071,280	5255.94000000	(2,489,160)	968,386	(1,520,774)		0			968,386				
181407 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	76	40,765,874	5349.08000000	(1,243,687)	483,845	(759,842)		0			483,845				
181412 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/06/2024	02/06/2025	132	72,059,724	5459.07000000	(1,564,200)	608,538	(955,662)		0			608,538				
181422 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUWSPUBM8MPRO8K5P83	.02/06/2024	.08/06/2025		3,777,790	5065.70000000	(339,650)	87,873	(251,777)		0			87,873				
181430 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMUWSPUBM8MPRO8K5P83	.02/06/2024	02/06/2025		104,795,525	5198.47000000	(5,156,387)	1,997,392	(3,158,995)		0			1,997,392				
181780 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/20/2024	02/20/2025	95	48,708,970	5127.26000000	(2,888,950)	1,013,111	(1,875,839)		0			1,013,111				
181800 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/20/2024	02/20/2025	2,131	42,335,529	198.68000000	(1,777,121)	623,209	(1,153,911)		0			623,209				
181801 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/20/2024	02/20/2025	109	56,511,177	5182.99000000	(2,963,054)	1,039,098	(1,923,955)		0			1,039,098				
181817 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/20/2024	02/20/2025	2,435	22,381,396	91.90000000	(1,110,546)	389,452	(721,094)		0			389,452				
181823 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/20/2024	02/20/2025	200	104,484,033	5217.32000000	(5,059,665)	1,774,348	(3,285,317)		0			1,774,348				
181829 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CB0E	529900RLNSGA90UPEH54	.02/20/2024	08/20/2025	6	3,052,476	5087.46000000	(264,978)	62,119	(202,859)		0			62,119				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
181836 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/20/2024	02/20/2025	123	62,545,131	5084.97000000	(4,054,326)	1,421,791	(2,632,535)		0			1,421,791				
181839 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/20/2024	02/20/2025	69	36,430,916	5284.99000000	(1,496,049)	524,642	(971,407)		0			524,642				
181850 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	02/20/2024	02/20/2025	146	1,192,242	81.76000000	(37,330)	13,091	(24,239)		0			13,091				
181854 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	02/20/2024	02/20/2025		21,266,748	5106.37000000	(629,941)	219,787	(410,154)		0			219,787				
181879 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMJUSFPUBMPRO8K5P83	02/20/2024	02/20/2025		66,568,786	5074.03000000	(4,678,349)	1,632,281	(3,046,068)		0			1,632,281				
181887 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	02/20/2024	02/20/2025		68,266,823	5443.71000000	(2,046,568)	714,050	(1,332,518)		0			714,050				
182214 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	2,268	47,885,404	211.12000000	(2,168,361)	673,145	(1,495,216)		0			673,145				
182225 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	172	1,438,570	83.79000000	(44,982)	13,964	(31,018)		0			13,964				
182233 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	09/05/2025	4	2,086,008	5215.02000000	(184,056)	38,023	(146,033)		0			38,023				
182242 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	148	77,046,284	5205.83000000	(5,113,992)	1,587,585	(3,526,407)		0			1,587,585				
182251 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	131	68,350,298	5217.58000000	(4,433,564)	1,376,354	(3,057,210)		0			1,376,354				
182253 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHHG71XBU11	03/06/2024	03/06/2025		53,290,358	5411.56000000	(2,490,836)	768,522	(1,722,314)		0			768,522				
182258 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	93	48,917,442	5259.94000000	(2,912,574)	904,178	(2,008,396)		0			904,178				
182267 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	116	61,436,217	5318.14000000	(3,235,194)	1,004,332	(2,230,862)		0			1,004,332				
182268 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	GOLDMAN SACHS INTERNATIONAL	W22LR0WP21HZNB6K528	03/06/2024	03/06/2025		25,520,215	94.72000000	(1,449,495)	447,227	(1,002,268)		0			447,227				
182278 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/06/2024	03/06/2025	191	106,021,486	5563.68000000	(3,058,297)	949,417	(2,108,881)		0			949,417				
182286 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHHG71XBU11	03/06/2024	03/06/2025		140,574,064	5361.02000000	(7,319,166)	2,258,255	(5,060,911)		0			2,258,255				
182298 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RHHG71XBU11	03/06/2024	03/06/2025		26,404,642	5241.57000000	(1,038,904)	320,544	(718,361)		0			320,544				
182746 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	03/20/2024	03/20/2025		82,447,380	5327.55000000	(5,902,376)	1,593,479	(4,308,897)		0			1,593,479				
182759 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	03/20/2024	03/20/2025		93,493,096	5724.62000000	(2,935,256)	792,438	(2,142,818)		0			792,438				
182765 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCUFXT09	03/20/2024	03/20/2025		1,786,177	5929.94000000	(33,363)	9,007	(24,356)		0			9,007				
182772 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	2,103	45,033,604	214.15000000	(1,922,051)	522,756	(1,399,295)		0			522,756				
182785 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	3,062	28,740,035	93.87000000	(1,028,726)	279,791	(748,935)		0			279,791				
182797 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	157	1,358,965	86.63000000	(27,609)	7,509	(20,100)		0			7,509				
182800 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	93	50,477,709	5433.60000000	(2,757,899)	750,088	(2,007,811)		0			750,088				

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182808 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	260	142,468,517	5481.15000000	(7,038,755)	1,900,270	(5,138,485)		0			1,900,270				
182827 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	98	54,059,067	5542.28000000	(2,331,484)	634,112	(1,697,372)		0			634,112				
182834 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	03/20/2024	03/20/2025		23,300,559	5363.59000000	(710,411)	191,791	(518,620)		0			191,791				
182838 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	09/19/2025	7	3,736,229	5337.47000000	(334,894)	60,612	(274,282)		0			60,612				
182840 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	99	52,851,348	5338.52000000	(3,487,275)	948,462	(2,538,813)		0			948,462				
182844 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	03/20/2024	03/20/2025	91	49,008,414	5385.54000000	(2,951,130)	802,643	(2,148,488)		0			802,643				
183360 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	2,419	55,358,075	228.87000000	(2,585,650)	580,160	(2,005,491)		0			580,160				
183376 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	257	2,177,190	84.70000000	(58,864)	13,208	(45,656)		0			13,208				
183383 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	10/06/2025	3	1,594,869	5316.23000000	(147,060)	21,817	(125,243)		0			21,817				
183386 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	241	127,908,099	5307.39000000	(8,971,466)	2,012,988	(6,958,478)		0			2,012,988				
183397 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	107	57,290,154	5354.22000000	(3,684,117)	826,630	(2,857,487)		0			826,630				
183417 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	04/05/2024	04/04/2025		29,334,039	5333.41000000	(961,771)	213,727	(748,044)		0			213,727				
183418 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	04/05/2024	04/04/2025		739,238	303.51000000	(454)	101	(353)		0			101				
183431 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	MORGAN STANLEY & CO. INTERNATIONAL PLC	4PQUHNGJPF6GNF3B8653	04/05/2024	04/04/2025		31,886,335	92.24000000	(1,898,347)	421,855	(1,476,492)		0			421,855				
183461 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	97	52,462,077	5408.35000000	(3,037,036)	681,440	(2,355,596)		0			681,440				
183470 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	341	186,146,078	5459.87000000	(9,712,556)	2,179,272	(7,533,285)		0			2,179,272				
183476 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	97	53,531,196	5518.68000000	(2,466,031)	553,320	(1,912,711)		0			553,320				
183480 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	99	55,912,247	5650.35000000	(1,903,867)	427,184	(1,476,684)		0			427,184				
183484 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/05/2024	04/04/2025	100	57,497,500	5749.75000000	(1,523,300)	341,793	(1,181,507)		0			341,793				
183812 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/19/2024	04/17/2025	1,812	42,834,095	236.44000000	(2,146,777)	399,539	(1,747,238)		0			399,539				
183832 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/19/2024	10/20/2025	4	2,029,808	5074.52000000	(198,036)	24,301	(173,735)		0			24,301				
183839 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/19/2024	04/17/2025	91	46,652,788	5126.68000000	(3,103,100)	577,521	(2,525,579)		0			577,521				
183841 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	UBS AG	BFBMT61CT2L10CEMIK50	04/19/2024	04/17/2025		25,065,530	87.42000000	(1,446,816)	265,988	(1,180,828)		0			265,988				
183855 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	04/19/2024	04/17/2025		191,024	297.49000000	(117)	22	(96)		0			22				
183856 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	04/19/2024	04/17/2025	128	67,614,537	5266.75000000	(3,391,928)	631,275	(2,760,652)		0			631,275				

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
183862 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	104,080,783	..5065.58000000	.....	(8,108,669)	1,490,730	.....	(6,617,939)	.....	.....	.....1,490,730	.....	.....	.....	.....
183874 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.04/19/2024	.04/17/2025	245	1,992,185	..81.44000000	.....	(37,916)	7,057	.....	(30,859)	.....	.....	.....7,057	.....	.....	.....	.....
183879 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	20,229,478	..5094.39000000	.....	(670,224)	123,217	.....	(547,008)	.....	.....	.....123,217	.....	.....	.....	.....
183888 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	SOCIETE GENERAL ...	02RNE81BXP4R0TD8PU41	.04/19/2024	.04/17/2025	.....	42,849,786	..5171.38000000	.....	(2,766,243)	508,557	.....	(2,257,686)	.....	.....	.....508,557	.....	.....	.....	.....
183896 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	91,495,489	..5218.57000000	.....	(5,386,807)	990,332	.....	(4,396,474)	.....	.....	.....990,332	.....	.....	.....	.....
183902 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.04/19/2024	.04/17/2025	.....	51,724,682	..5298.54000000	.....	(2,594,277)	476,942	.....	(2,117,335)	.....	.....	.....476,942	.....	.....	.....	.....
183908 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	SOCIETE GENERAL ...	02RNE81BXP4R0TD8PU41	.04/19/2024	.04/17/2025	.....	75,926,709	..5438.62000000	.....	(2,815,439)	517,602	.....	(2,297,838)	.....	.....	.....517,602	.....	.....	.....	.....
184309 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.05/06/2024	.05/06/2025	.....	27,786,474	..5317.51000000	.....	(831,104)	116,767	.....	(714,337)	.....	.....	.....116,767	.....	.....	.....	.....
184334 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.11/06/2025	5	2,646,065	..5292.13000000	.....	(238,210)	22,604	.....	(215,606)	.....	.....	.....22,604	.....	.....	.....	.....
184345 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	217	114,648,044	..5283.32000000	.....	(7,659,232)	1,094,176	.....	(6,565,056)	.....	.....	.....1,094,176	.....	.....	.....	.....
184351 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	74	39,499,128	..5337.72000000	.....	(2,373,846)	339,121	.....	(2,034,725)	.....	.....	.....339,121	.....	.....	.....	.....
184352 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/06/2024	.05/06/2025	.....	1,201,424	..302.27000000	.....	(630)	89	.....	(541)	.....	.....	.....89	.....	.....	.....	.....
184361 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/06/2024	.05/06/2025	.....	31,127,749	..90.09000000	.....	(1,664,901)	233,912	.....	(1,430,989)	.....	.....	.....233,912	.....	.....	.....	.....
184374 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	138	75,903,703	..5493.66000000	.....	(3,262,652)	466,093	.....	(2,796,559)	.....	.....	.....466,093	.....	.....	.....	.....
184375 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	146	79,043,685	..5402.48000000	.....	(4,158,423)	594,060	.....	(3,564,362)	.....	.....	.....594,060	.....	.....	.....	.....
184385 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	109	60,063,321	..5522.15000000	.....	(2,414,650)	344,950	.....	(2,069,700)	.....	.....	.....344,950	.....	.....	.....	.....
184396 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	162	87,979,612	..5447.03000000	.....	(4,202,388)	600,341	.....	(3,602,047)	.....	.....	.....600,341	.....	.....	.....	.....
184397 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	163	92,375,733	..5666.18000000	.....	(2,571,798)	367,400	.....	(2,204,399)	.....	.....	.....367,400	.....	.....	.....	.....
184406 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	2,325	53,522,419	..230.16000000	.....	(2,437,065)	348,152	.....	(2,088,913)	.....	.....	.....348,152	.....	.....	.....	.....
184412 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/06/2024	.05/06/2025	275	2,340,023	..85.23000000	.....	(62,598)	8,943	.....	(53,656)	.....	.....	.....8,943	.....	.....	.....	.....
184783 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/20/2024	.05/20/2025	.....	23,038,662	..5447.73000000	.....	(655,336)	66,797	.....	(588,539)	.....	.....	.....66,797	.....	.....	.....	.....
184816 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.05/20/2024	.05/20/2025	.....	1,411,447	..305.67000000	.....	(739)	75	.....	(664)	.....	.....	.....75	.....	.....	.....	.....
184818 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	84	47,147,066	..5634.58000000	.....	(1,885,438)	196,831	.....	(1,688,606)	.....	.....	.....196,831	.....	.....	.....	.....
184832 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	88	49,806,932	..5662.71000000	.....	(1,859,566)	194,130	.....	(1,665,435)	.....	.....	.....194,130	.....	.....	.....	.....
184836 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BNP PARIBAS LONDON	ROMUJISFPUBM8PR08K5P83	.05/20/2024	.05/20/2025		21,409,293	..93.54000000		(1,066,703)	108,727		(957,975)			108,727				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
184849 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	96	..54,353,952	..5687.66000000	(1,906,325)	199,012	(1,707,313)		0			199,012				
184858 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	176	101,527,441	..5773.65000000	(2,833,937)	295,851	(2,538,087)		0			295,851				
184880 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	78	42,611,772	..5483.83000000	(2,386,924)	249,184	(2,137,739)		0			249,184				
184891 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	165	91,546,135	..5547.00000000	(4,480,100)	467,703	(4,012,397)		0			467,703				
184894 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	1,977	47,668,648	..241.11000000	(2,245,929)	234,465	(2,011,464)		0			234,465				
184900 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	91	51,355,364	..5614.94000000	(2,151,735)	224,632	(1,927,103)		0			224,632				
184906 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	214	1,860,531	87.01000000	(51,961)	5,424	(46,536)		0			5,424				
184910 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.11/20/2025	4	2,168,900	..5422.25000000	(191,516)	13,280	(178,236)		0			13,280				
184914 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.05/20/2024	.05/20/2025	201	108,805,923	..5413.23000000	(7,024,749)	733,353	(6,291,396)		0			733,353				
185340 Call Options - Ishares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5I70UK5573	.06/06/2024	.06/06/2025		23,703,343	92.89000000	(1,143,334)	57,008	(1,086,325)		0			57,008				
185346 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5I70UK5573	.06/06/2024	.06/06/2025		2,666,904	303.52000000	(1,396)	70	(1,327)		0			70				
185350 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	BNP PARIBAS LONDON	ROMJWSFPUBMPRO8K5P83	.06/06/2024	.12/05/2025		2,389,297	..5468.05000000	(226,767)	7,517	(219,250)		0			7,517				
185355 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	.06/06/2024	.06/06/2025		23,674,175	..5492.67000000	(215,507)	10,746	(204,761)		0			10,746				
185362 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	SOCIETE GENERAL	02RNE8IBXP4ROT8PU41	.06/06/2024	.06/06/2025		45,204,348	..5529.07000000	(2,726,529)	135,949	(2,590,580)		976,423			135,949				
185377 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	89	50,535,247	..5659.15000000	(2,098,421)	121,063	(1,977,358)		0			121,063				
185384 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	2,351	55,431,864	..235.78000000	(2,390,966)	137,940	(2,253,026)		0			137,940				
185403 Call Options - Ishares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	354	3,111,553	87.83000000	(78,294)	4,517	(73,777)		0			4,517				
185417 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	96	54,545,503	..5685.91000000	(2,120,267)	122,323	(1,997,944)		0			122,323				
185419 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	222	121,188,690	..5458.95000000	(7,756,458)	447,488	(7,308,970)		0			447,488				
185429 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	209	116,712,081	..5594.38000000	(5,622,829)	324,394	(5,298,435)		0			324,394				
185439 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	95	54,489,623	..5718.57000000	(1,950,969)	112,556	(1,838,413)		0			112,556				
185448 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	115	66,019,355	..5744.26000000	(2,212,996)	127,673	(2,085,324)		0			127,673				
185459 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/06/2024	.06/06/2025	145	84,540,390	..5846.50000000	(2,128,657)	122,807	(2,005,849)		0			122,807				
186127 Call Options - SPDR Gold shares - USD	LIABILITY HEDGE	Exhibit 5	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	1,951	45,534,625	..233.39000000	(2,062,218)	39,658	(2,022,560)		0			39,658				

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
186140 Call Options - iShares MSCI EAFE - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 212	 1,779,245	 83.77000000	 (52,887)	 1,017	 (51,870)	.....	..... 0	.....	.....	..... 1,017	.....	.....	.....	.....
186146 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.12/19/2025	 4	 2,236,556	.. 5591.39000000	 (193,092)	 2,476	 (190,616)	.....	..... 0	.....	.....	..... 2,476	.....	.....	.....	.....
186149 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 186	 103,816,644	.. 5581.54000000	 (6,607,836)	 127,074	 (6,480,762)	.....	..... 0	.....	.....	..... 127,074	.....	.....	.....	.....
186163 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 75	 42,253,935	.. 5657.62000000	 (2,306,198)	 44,350	 (2,261,848)	.....	..... 0	.....	.....	..... 44,350	.....	.....	.....	.....
186165 Call Options - iShares U.S. Real Estate - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.06/20/2024	.06/20/2025	.....	..... 19,766,127	 92.24000000	 (985,958)	 10,925	 (975,033)	.....	..... 0	.....	.....	..... 10,925	.....	.....	.....	.....
186175 Call Options - First Trust Barclays Edge Index - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	BARCLAYS BANK PLC	G5GSEF7VJP5170UK5573	.06/20/2024	.06/20/2025	.....	..... 1,935,112	... 303.01000000	 (1,016)	 11	 (1,004)	.....	..... 0	.....	.....	..... 11	.....	.....	.....	.....
186187 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	ROYAL BANK OF CANADA	ES71P3U3RH1GCT1XBU11	.06/20/2024	.06/20/2025	.....	..... 23,743,111	.. 5615.47000000	 (717,385)	 7,949	 (709,436)	.....	..... 0	.....	.....	..... 7,949	.....	.....	.....	.....
186198 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 82	 48,208,471	.. 5871.07000000	 (1,595,845)	 30,689	 (1,565,155)	.....	..... 0	.....	.....	..... 30,689	.....	.....	.....	.....
186208 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 87	 50,266,000	.. 5802.11000000	 (1,980,107)	 38,079	 (1,942,028)	.....	..... 0	.....	.....	..... 38,079	.....	.....	.....	.....
186216 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 97	 56,763,092	.. 5832.21000000	 (2,075,885)	 39,921	 (2,035,965)	.....	..... 0	.....	.....	..... 39,921	.....	.....	.....	.....
186227 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 104	 62,127,299	.. 5987.10000000	 (1,487,419)	 28,604	 (1,458,815)	.....	..... 0	.....	.....	..... 28,604	.....	.....	.....	.....
186236 Call Options - S&P 500 - USD	LIABILITY HEDGE	Exhibit 5 ...	Equity/Index	CBOE	529900RLNSGA90UPEH54	.06/20/2024	.06/20/2025	 236	 135,180,215	.. 5723.84000000	 (6,391,955)	 122,922	 (6,269,032)	.....	..... 0	.....	.....	..... 122,922	.....	.....	.....	.....
0649999999. Subtotal - Written Options - Hedging Other - Call Options and Warrants										(406,946,199)	(357,890,107)	284,295,292	(369,181,045)	XXX	976,423	0	0	284,295,292	0	0	XXX	XXX
0709999999. Subtotal - Written Options - Hedging Other										(406,946,199)	(357,890,107)	284,295,292	(369,181,045)	XXX	976,423	0	0	284,295,292	0	0	XXX	XXX
0779999999. Subtotal - Written Options - Replications										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0849999999. Subtotal - Written Options - Income Generation										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0919999999. Subtotal - Written Options - Other										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0929999999. Total Written Options - Call Options and Warrants										(406,946,199)	(357,890,107)	284,295,292	(369,181,045)	XXX	976,423	0	0	284,295,292	0	0	XXX	XXX
0939999999. Total Written Options - Put Options										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0949999999. Total Written Options - Caps										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0959999999. Total Written Options - Floors										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0969999999. Total Written Options - Collars										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0979999999. Total Written Options - Other										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
0989999999. Total Written Options										(406,946,199)	(357,890,107)	284,295,292	(369,181,045)	XXX	976,423	0	0	284,295,292	0	0	XXX	XXX
1049999999. Subtotal - Swaps - Hedging Effective Excluding Variable Annuity Guarantees Under SSAP No.108										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1109999999. Subtotal - Swaps - Hedging Effective Variable Annuity Guarantees Under SSAP No.108										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
Interest Rate Swap /169502 /Pay USD[Quarterly] SOFR [1.14158%]/ Receive USDQuarterly FIXED 2.434%	Portfolio Hedge	Exhibit 5 ...	Interest	MORGAN STANLEY CAPITAL SERVICES / MORGAN STANLEY/CLEARED THROUGH CME	9R7GPTS07KV3UQJZ0078	.06/04/2015	.06/23/2030	.....	..... 72,000,000	.. 2.434% [SOFR]	 19,376	 (1,189,905)	 (5,871,133)	.....	..... (5,871,133)	 (1,190,794)	.....	.....	.....	..... 881,081	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
Interest Rate Swap /169504 /Pay USD[Quarterly] SOFR [1.14158%]/ Receive USDQuarterly FIXED 1.618%	Portfolio Hedge	Exhibit 5 ...	Interest ...	MORGAN STANLEY CAPITAL SERVICES / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	10/06/2016	06/23/2030	.....	162,000,000	1.618% [SOFR]	47,172		(3,401,282)	(17,800,142)		(17,800,142)	(1,741,581)				1,982,433		
Interest Rate Swap /169501 /Pay USD[Quarterly] SOFR [4.67118%]/ Receive USDQuarterly FIXED 2.233%	Portfolio Hedge	Exhibit 5 ...	Interest ...	MORGAN STANLEY CAPITAL SERVICES / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	10/25/2017	10/25/2025	.....	64,000,000	2.233% [SOFR]	8,967		(1,139,873)	(1,540,735)		(1,540,735)	480,008				370,427		
Interest Rate Swap /169503 /Pay USD[Quarterly] SOFR [1.14158%]/ Receive USDQuarterly FIXED 2.4175%	Portfolio Hedge	Exhibit 5 ...	Interest ...	MORGAN STANLEY CAPITAL SERVICES / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	10/25/2017	06/23/2030	.....	66,000,000	2.4175% [SOFR]	17,735		(1,090,773)	(5,182,132)		(5,182,132)	(1,011,340)				807,658		
Interest Rate Swap /145478 /Pay USD[Annual] SOFR [2.52437%]/ Receive USDAnnual FIXED 1.481%	Portfolio Hedge	Exhibit 5 ...	Interest ...	CITIBANK N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	01/13/2022	01/18/2030	.....	286,000,000	1.481% [SOFR]	0		(5,678,746)	(35,737,430)		(35,737,430)	(4,936,643)				3,374,921		
Interest Rate Swap /162729 /Pay USD[Annual] FIXED [3.28%]/ Receive USDAnnual SOFR 2.91373%	Portfolio Hedge	Exhibit 5 ...	Interest ...	THE TORONTO-DOMINION BANK / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2042	.....	240,000,000	SOFR [3.28%]	0		2,563,511	19,652,586		19,652,586	13,161,577				5,160,000		
Interest Rate Swap /162730 /Pay USD[Annual] FIXED [3.36%]/ Receive USDAnnual SOFR 2.91373%	Portfolio Hedge	Exhibit 5 ...	Interest ...	THE TORONTO-DOMINION BANK / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2032	.....	280,000,000	SOFR [3.36%]	0		2,877,519	11,622,482		11,622,482	9,742,657				4,081,666		
Interest Rate Swap /162731 /Pay USD[Annual] SOFR [2.91373%]/ Receive USDAnnual FIXED 4.2535%	Portfolio Hedge	Exhibit 5 ...	Interest ...	CITIBANK N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2024	.....	855,000,000	4.2535% [SOFR]	0		(4,924,556)	(4,568,422)		(4,568,422)	(283,017)				2,992,500		
Interest Rate Swap /162732 /Pay USD[Annual] FIXED [3.354%]/ Receive USDAnnual SOFR 2.91373%	Portfolio Hedge	Exhibit 5 ...	Interest ...	CITIBANK N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2032	.....	195,000,000	SOFR [3.354%]	0		2,009,901	8,177,575		8,177,575	6,778,750				2,842,589		

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
Interest Rate Swap /162733 /Pay USD[Annual] FIXED [3.276%]/ Receive USDAnnual SOFR 2.91373%	Portfolio Hedge	Exhibit 5 ...	Interest	THE TORONTO-DOMINION BANK / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2042	.....	240,000,000	SOFR [3.276%]	0 .....	.....	2,568,365	19,777,889	.....	19,777,889	13,154,033	.....	.....	.....	5,160,000	.....	.....
Interest Rate Swap /162735 /Pay USD[Annual] FIXED [3.3545%]/ Receive USDAnnual SOFR 2.91373%	Portfolio Hedge	Exhibit 5 ...	Interest	THE TORONTO-DOMINION BANK / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2032	.....	400,000,000	SOFR [3.3545%]	0 .....	.....	4,121,864	16,760,266	.....	16,760,266	13,906,207	.....	.....	.....	5,830,952	.....	.....
Interest Rate Swap /162736 /Pay USD[Annual] FIXED [3.354%]/ Receive USDAnnual SOFR 2.91373%	Portfolio Hedge	Exhibit 5 ...	Interest	JPMORGAN CHASE BANK, N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/21/2022	12/23/2032	.....	190,000,000	SOFR [3.354%]	0 .....	.....	1,958,365	7,967,894	.....	7,967,894	6,604,936	.....	.....	.....	2,769,702	.....	.....
Interest Rate Swap /179971 /Pay USD[Annual] FIXED [3.468%]/ Receive USDAnnual SOFR 2.94166%	Portfolio Hedge .....	.....	Interest	CITIBANK N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/20/2023	12/22/2035	.....	410,000,000	SOFR [3.468%]	0 .....	.....	3,997,507	17,194,748	.....	17,194,748	17,294,297	.....	.....	.....	6,951,888	.....	.....
Interest Rate Swap /179972 /Pay USD[Annual] SOFR [2.94166%]/ Receive USDAnnual FIXED 3.8165%	Portfolio Hedge .....	.....	Interest	CITIBANK N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/20/2023	12/22/2026	.....	1,400,000,000	3.8165% [SOFR]	0 .....	.....	(11,183,417)	(20,303,734)	.....	(20,303,734)	(23,372,145)	.....	.....	.....	11,045,814	.....	.....
Interest Rate Swap /179973 /Pay USD[Annual] SOFR [2.94166%]/ Receive USDAnnual FIXED 3.5615%	Portfolio Hedge .....	.....	Interest	MUFG SECURITIES EMEA PLC / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/20/2023	12/22/2028	.....	1,090,000,000	3.5615% [SOFR]	0 .....	.....	(10,112,281)	(23,925,492)	.....	(23,925,492)	(26,296,283)	.....	.....	.....	11,561,196	.....	.....
Interest Rate Swap /179974 /Pay USD[Annual] FIXED [3.482%]/ Receive USDAnnual SOFR 2.94166%	Portfolio Hedge .....	.....	Interest	MUFG SECURITIES EMEA PLC / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/20/2023	12/22/2038	.....	425,000,000	SOFR [3.482%]	0 .....	.....	4,113,676	20,683,108	.....	20,683,108	20,624,864	.....	.....	.....	8,088,968	.....	.....
Interest Rate Swap /179975 /Pay USD[Annual] FIXED [3.4655%]/ Receive USDAnnual SOFR 2.94166%	Portfolio Hedge .....	.....	Interest	JPMORGAN CHASE BANK, N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/20/2023	12/22/2035	.....	100,000,000	SOFR [3.4655%]	0 .....	.....	976,265	4,216,716	.....	4,216,716	4,216,621	.....	.....	.....	1,695,582	.....	.....
Interest Rate Swap /179976 /Pay USD[Annual] SOFR [2.94166%]/ Receive USDAnnual FIXED 3.5585%	Portfolio Hedge		Interest	JPMORGAN CHASE BANK, N.A. / MORGAN STANLEY/CLEARED THROUGH CME 9R7GPTS07KV3UQJZ0078	12/20/2023	12/22/2028		210,000,000	3.5585% [SOFR]	0		(1,951,423)	(4,634,917)		(4,634,917)	(5,063,201)				2,227,386		

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
1119999999. Subtotal - Swaps - Hedging Other - Interest Rate										93,250	0	(15,485,281)	6,489,124	XXX	6,489,124	42,068,946	0	0	0	77,824,763	XXX	XXX
Currency Swap /154919 /Pay EUR[Semi-Annual] FIXED [3.33%]/ Receive USDSemi-Annual FIXED 5.214%	ASSET HEDGE	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCJFXT09	.08/04/2022	.08/20/2027	 22,972,500	5.214% [3.33%]	 0	.....	.....193,778	 (971,009)	.....	..... (971,009)	729,981	.....	.....	.....	.....203,537	.....	.....
Currency Swap /156715 /Pay GBP[Semi-Annual] FIXED [6.66%]/ Receive USDSemi-Annual FIXED 6.78%	ASSET HEDGE	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCJFXT09	.09/09/2022	.09/20/2032	 19,669,000	6.78% [6.66%]	 0	.....	.....(49,367)	(2,345,008)	.....	..... (2,345,008)	634,557	.....	.....	.....	.....282,132	.....	.....
Currency Swap /158392 /Pay EUR[Semi-Annual] FIXED [6.04%]/ Receive USDSemi-Annual FIXED 7.672%	ASSET HEDGE	Schedule D ..	Currency.....	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.10/13/2022	.10/30/2027	 21,802,500	7.672% [6.04%]	 0	.....	.....101,594	(2,593,856)	.....	..... (2,593,856)	946,103	.....	.....	.....	.....199,228	.....	.....
Currency Swap /158652 /Pay EUR[Quarterly] FIXED [6.408%]/ Receive USDQuarterly FIXED 7.798%	ASSET HEDGE	Schedule D ..	Currency.....	CITIBANK N.A.	E570DZWZ7FF32TWEFA76	.10/20/2022	.10/19/2027	4,895,000	7.7987% [6.408%]	 0	.....	.....15,771	(764,700)	.....	..... (764,700)	298,843	.....	.....	.....	.....44,528	.....	.....
Currency Swap /158899 /Pay GBP[Semi-Annual] FIXED [6.22%]/ Receive USDSemi-Annual FIXED 6.2485%	ASSET HEDGE	Schedule D ..	Currency.....	ROYAL BANK OF CANADA	ES71P3U3RH1GC71XBU11	.10/25/2022	.01/31/2030	 27,528,000	6.2485% [6.22%]	 0	.....	.....(84,237)	(3,383,587)	.....	..... (3,383,587)	765,970	.....	.....	.....	.....325,425	.....	.....
Currency Swap /159983 /Pay GBP[Semi-Annual] FIXED [9.2279%]/ Receive USDSemi-Annual FIXED 9.495%	ASSET HEDGE	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCJFXT09	.10/26/2022	.05/02/2025	 5,785,000	9.495% [9.2279%]	 0	.....	.....(20,465)	(559,072)	.....	..... (559,072)	65,385	.....	.....	.....	.....26,510	.....	.....
Currency Swap /159089 /Pay GBP[Semi-Annual] FIXED [6.07%]/ Receive USDSemi-Annual FIXED 6.282%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	.10/27/2022	.11/09/2037	 18,528,000	6.282% [6.07%]	 0	.....	.....(32,326)	(2,037,655)	.....	..... (2,037,655)	761,135	.....	.....	.....	.....338,612	.....	.....
Currency Swap /159812 /Pay EUR[Quarterly] FIXED [5.01%]/ Receive USDQuarterly FIXED 6.691%	ASSET HEDGE	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A.	KB1H1DSPRFMYMCJFXT09	.11/07/2022	.01/31/2030	 20,000,000	6.691% [5.01%]	 0	.....	.....124,148	(1,668,886)	.....	..... (1,668,886)	816,422	.....	.....	.....	.....236,432	.....	.....
Currency Swap /161475 /Pay EUR[Semi-Annual] FIXED [5.08%]/ Receive USDSemi-Annual FIXED 6.418%	ASSET HEDGE	Schedule D ..	Currency.....	MORGAN STANLEY CAPITAL SERVICES ..	I7331LVCZKQKX5T7VX54	.12/02/2022	.06/27/2030	 18,445,000	6.418% [5.08%]	 0	.....	.....111,354	(611,880)	.....	..... (611,880)	771,280	.....	.....	.....	.....225,904	.....	.....
Currency Swap /162602 /Pay EUR[Semi-Annual] FIXED [5.478%]/ Receive USDSemi-Annual FIXED 6.6425%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A.	7H6GLXDRUGOFU57RNE97	.12/21/2022	.01/04/2032	 21,180,000	6.6425% [5.478%]	 0		104,496	(1,027,117)		 (1,027,117)	895,168				290,406		

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SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
Currency Swap /166905 /Pay GBP[Semi-Annual] FIXED [6.2%]/ Receive USDSemi-Annual FIXED 6.13%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGQFU57RNE97	.03/28/2023	.08/23/2029	.....	..... 17,262,000	.. 6.13% [6.2%]	 0	.....	..... (19,982)	 (691,593)	.....	..... (691,593)	 365,393	.....	.....	.....	..... 195,869	.....	.....
Currency Swap /166906 /Pay GBP[Semi-Annual] FIXED [6.26%]/ Receive USDSemi-Annual FIXED 6.2675%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGQFU57RNE97	.03/28/2023	.08/23/2031	.....	..... 11,097,000	 6.2675% [6.26%]	 0	.....	..... (8,632)	 (470,965)	.....	..... (470,965)	 279,315	.....	.....	.....	..... 148,468	.....	.....
Currency Swap /166959 /Pay GBP[Semi-Annual] FIXED [6.11%]/ Receive USDSemi-Annual FIXED 6.055%	ASSET HEDGE	Schedule D ..	Currency.....	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.03/30/2023	.06/29/2030	.....	..... 24,760,000	6.055% [6.11%]	 0	.....	..... (23,215)	 (945,306)	.....	..... (945,306)	 564,222	.....	.....	.....	..... 303,499	.....	.....
Currency Swap /167021 /Pay EUR[Semi-Annual] FIXED [6.01%]/ Receive USDSemi-Annual FIXED 6.839%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGQFU57RNE97	.03/31/2023	.06/30/2028	.....	..... 27,175,000	6.839% [5.62%]	 0	.....	..... 116,885	 (286,658)	.....	..... (286,658)	 1,053,568	.....	.....	.....	..... 272,089	.....	.....
Currency Swap /167275 /Pay EUR[Semi-Annual] FIXED [4.57%]/ Receive USDSemi-Annual FIXED 5.219%	ASSET HEDGE	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCUFXT09	.04/05/2023	.06/19/2029	.....	..... 24,046,000	5.219% [4.57%]	 0	.....	..... 84,013	 (484,495)	.....	..... (484,495)	 902,975	.....	.....	.....	..... 268,304	.....	.....
Currency Swap /167714 /Pay EUR[Semi-Annual] FIXED [4.7%]/ Receive USDSemi-Annual FIXED 5.471%	ASSET HEDGE	Schedule D ..	Currency.....	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.04/18/2023	.06/07/2029	.....	..... 21,880,000	5.471% [4.7%]	 0	.....	..... 90,379	 (322,677)	.....	..... (322,677)	 824,456	.....	.....	.....	..... 243,154	.....	.....
Currency Swap /167928 /Pay GBP[Semi-Annual] FIXED [7.16%]/ Receive USDSemi-Annual FIXED 6.791%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGQFU57RNE97	.04/20/2023	.05/12/2030	.....	..... 18,690,000	6.791% [7.16%]	 0	.....	..... (44,686)	 (881,972)	.....	..... (881,972)	 458,242	.....	.....	.....	..... 226,604	.....	.....
Currency Swap /170669 /Pay GBP[Annual] FIXED [6.24%]/ Receive USDAnnual FIXED 5.9265%	ASSET HEDGE	Schedule D ..	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX5T7XV54	.04/27/2023	.05/16/2033	.....	..... 25,563,500	 5.9265% [6.24%]	 0	.....	..... (49,430)	 (1,438,220)	.....	..... (1,438,220)	 762,328	.....	.....	.....	..... 380,888	.....	.....
Currency Swap /171291 /Pay EUR[Semi-Annual] FIXED [4.27%]/ Receive USDSemi-Annual FIXED 5.08%	ASSET HEDGE	Schedule D ..	Currency.....	BNP PARIBAS LONDON ROMUJWSPU8MIPR08K5P83	.05/11/2023	.06/20/2030	.....	..... 18,018,000	5.08% [4.27%]	 0	.....	..... 76,816	 (343,488)	.....	..... (343,488)	 668,026	.....	.....	.....	..... 220,306	.....	.....
Currency Swap /171895 /Pay DKK[Semi-Annual] FIXED [5.26%]/ Receive USDSemi-Annual FIXED 6.34%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGQFU57RNE97	.05/25/2023	.06/30/2030	.....	..... 24,446,362	6.34% [5.26%]	 0	.....	..... 126,719	 (919,508)	.....	..... (919,508)	 874,427	.....	.....	.....	..... 299,655	.....	.....
Currency Swap /171910 /Pay CAD[Semi-Annual] FIXED [5.96%]/ Receive USDSemi-Annual FIXED 6.152%	ASSET HEDGE	Schedule D ..	Currency.....	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGQFU57RNE97	.05/26/2023	.06/30/2033	.....	..... 14,684,288	6.152% [5.96%]	 0	.....	..... 13,000	 (403,747)	.....	..... (403,747)	 545,199	.....	.....	.....	..... 220,387	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)	
Currency Swap /176821 /Pay EUR[Annual] FIXED [5.194%]/ Receive USDAnnual FIXED 6.8% Currency Swap /177781 /Pay GBP[Quarterly] SONIA [6.3705%]/ Receive USDQuarterly SOFR 6.66593% Currency Swap /180765 /Pay EUR[Quarterly] FIXED [5.629%]/ Receive USDQuarterly FIXED 7.3215% Currency Swap /181109 /Pay CAD[Semi-Annual] FIXED [5.583%]/ Receive USDSemi-Annual FIXED 5.8805% Currency Swap /182949 /Pay EUR[Semi-Annual] FIXED [4.07%]/ Receive USDSemi-Annual FIXED 5.815% Currency Swap /182950 /Pay EUR[Semi-Annual] FIXED [4.79%]/ Receive USDSemi-Annual FIXED 6.5675% Currency Swap /183595 /Pay EUR[Semi-Annual] FIXED [4.88%]/ Receive USDSemi-Annual FIXED 6.8425% Currency Swap /184052 /Pay EUR[Semi-Annual] FIXED [4.67%]/ Receive USDSemi-Annual FIXED 6.709% Currency Swap /184056 /Pay EUR[Semi-Annual] FIXED [5.12%]/ Receive USDSemi-Annual FIXED 7.12% Currency Swap /184476 /Pay GBP[Semi-Annual] FIXED [5.51%]/ Receive USDSemi-Annual FIXED 5.9145% Currency Swap /185019 /Pay DKK[Semi-Annual] FIXED [4.27%]/ Receive USDSemi-Annual FIXED 6.1525%	ASSET HEDGE	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKXST7XV54	.09/21/2023	.09/28/2030		10,650,000	6.8% [5.194%]	0		82,792			(100,593)		(100,593)	424,624			133,231		
	ASSET HEDGE	Schedule D	Currency	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57PNE97	.10/16/2023	.07/13/2027		24,400,000	6.66593% [6.3705%]	0		4,173				(884,077)		(884,077)	267,554			212,714	
	ASSET HEDGE	Schedule D	Currency	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.01/19/2024	.10/19/2027		14,520,000	7.3215% [5.629%]	0			22,233			22,233			22,233			132,084	
	ASSET HEDGE	Schedule D	Currency	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.01/31/2024	.07/31/2033		15,375,762	5.8805% [5.583%]	0		25,783				91,855			91,855			231,787	
	ASSET HEDGE	Schedule D	Currency	CREDIT AGRICOLE ... 1VUV7VQFKUOQSJ21A208	.03/27/2024	.07/18/2031		21,642,000	5.815% [4.07%]	0			286,394			286,394			286,394			287,521	
	ASSET HEDGE	Schedule D	Currency	CREDIT AGRICOLE ... 1VUV7VQFKUOQSJ21A208	.03/27/2024	.04/17/2031		27,050,000	6.5675% [4.79%]	0		100,142				591,624			591,624			352,689	
	ASSET HEDGE	Schedule D	Currency	CREDIT AGRICOLE ... 1VUV7VQFKUOQSJ21A208	.04/10/2024	.05/07/2034		26,875,000	6.8425% [4.88%]	0		78,350				507,872			507,872			421,946	
	ASSET HEDGE	Schedule D	Currency	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57PNE97	.04/26/2024	.07/15/2031		21,440,000	6.709% [4.67%]	0			366,264			366,264			366,264			284,636	
	ASSET HEDGE	Schedule D	Currency	JPMORGAN CHASE BANK, N.A. 7H6GLXDRUGOFU57PNE97	.04/26/2024	.05/08/2031		37,450,000	7.12% [5.12%]	0		107,831				828,537			828,537			490,438	
	ASSET HEDGE	Schedule D	Currency	CREDIT AGRICOLE ... 1VUV7VQFKUOQSJ21A208	.05/10/2024	.05/15/2029		37,590,000	5.9145% [5.51%]	0		12,868				(95,169)			(95,169)			415,195	
	ASSET HEDGE	Schedule D	Currency	CREDIT AGRICOLE ... 1VUV7VQFKUOQSJ21A208	.05/23/2024	.06/11/2029		24,345,930	6.1525% [4.27%]	0		26,132				369,072			369,072			270,831	

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
Currency Swap /185230 /Pay EUR[Semi-Annual] FIXED [5.05%]/ Receive USDSemi-Annual FIXED 6.782%	ASSET HEDGE	Schedule D ..	Currency.....	CREDIT AGRICOLE ... 1VUV7VQFKUQGSJ21A208	.05/30/2024	.07/02/2029	.....	..... 19,512,000	6.782% [5.05%]	.....	..... 0	.....	.....125,264	.....	.....125,264	125,264	.....	.....	.....	.....218,369	.....	.....
Currency Swap /185245 /Pay EUR[Semi-Annual] FIXED [4.04%]/ Receive USDSemi-Annual FIXED 5.6875%	ASSET HEDGE	Schedule D ..	Currency.....	THE TORONTO-DOMINION BANK ... PT3QB789TSUIDF371261	.05/31/2024	.11/21/2029	.....	..... 21,702,000	5.6875% [4.04%]	.....	..... 0	.....	.....125,851	.....	.....125,851	125,851	.....	.....	.....	.....252,154	.....	.....
Currency Swap /185683 /Pay EUR[Semi-Annual] FIXED [5.82%]/ Receive USDSemi-Annual FIXED 7.4075%	ASSET HEDGE	Schedule D ..	Currency.....	CREDIT AGRICOLE ... 1VUV7VQFKUQGSJ21A208	.06/13/2024	.07/15/2034	.....	..... 21,540,000	7.4075% [5.82%]	.....	..... 0	 4,864	51,752	.....	.....51,752	51,752	.....	.....	.....	.....341,428	.....	.....
Currency Swap /186337 /Pay EUR[Semi-Annual] FIXED [4.57%]/ Receive USDSemi-Annual FIXED 6.139%	ASSET HEDGE	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A. ... KB1H1DSPRFMYMCJFXT09	.06/26/2024	.06/30/2031	.....	..... 24,541,000	6.139% [4.57%]	.....	..... 0	.....	.....(13,513)	.....	.....(13,513)	(13,513)	.....	.....	.....	.....324,879	.....	.....
1139999999. Subtotal - Swaps - Hedging Other - Foreign Exchange										0	0	1,269,545	(20,878,032)	XXX	(20,878,032)	17,933,207	0	0	0	9,321,839	XXX	XXX
1169999999. Subtotal - Swaps - Hedging Other										93,250	0	(14,215,735)	(14,388,908)	XXX	(14,388,908)	60,002,153	0	0	0	87,146,602	XXX	XXX
1229999999. Subtotal - Swaps - Replication										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1289999999. Subtotal - Swaps - Income Generation										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1349999999. Subtotal - Swaps - Other										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1359999999. Total Swaps - Interest Rate										93,250	0	(15,485,281)	6,489,124	XXX	6,489,124	42,068,946	0	0	0	77,824,763	XXX	XXX
1369999999. Total Swaps - Credit Default										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1379999999. Total Swaps - Foreign Exchange										0	0	1,269,545	(20,878,032)	XXX	(20,878,032)	17,933,207	0	0	0	9,321,839	XXX	XXX
1389999999. Total Swaps - Total Return										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1399999999. Total Swaps - Other										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1409999999. Total Swaps										93,250	0	(14,215,735)	(14,388,908)	XXX	(14,388,908)	60,002,153	0	0	0	87,146,602	XXX	XXX
REC 25630044.84 USD PAY [23032031.67] EUR /166475	Asset Hedge	Schedule BA ..	Currency.....	WELLS FARGO BANK, N.A. ... KB1H1DSPRFMYMCJFXT09	.03/21/2023	.03/27/2026	.....	..... 25,630,045	1.11280000	 0	.....	.....	.....209,832	.....	.....209,832	862,214	.....	.....	.....	.....169,527	.....	.....
REC 14914652.07 USD PAY [13823000.00] EUR /183035	Asset Hedge	Schedule D ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE ... 21G119DL770XOHC3ZE78	.04/02/2024	.07/03/2024	.....	..... 14,914,652	1.07897360	 0	.....	.....	.....110,138	.....	.....110,138	110,138	.....	.....	.....	.....7,457	.....	.....
REC 5009674.42 USD PAY [4643000.00] EUR /183040	Asset Hedge	Schedule BA ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE ... 21G119DL770XOHC3ZE78	.04/02/2024	.07/03/2024	.....	.....5,009,674	1.07897360	 0	.....	.....	.....36,994	.....	.....36,994	36,994	.....	.....	.....	.....2,505	.....	.....
REC 3933000.00 GBP PAY [4941116.79] USD /183056	Asset Hedge	Schedule D ..	Currency.....	MORGAN STANLEY CAPITAL SERVICES ... 17331LVCZKQKX57XV54	.04/02/2024	.07/03/2024	.....	.....4,941,117	1.25632260	 0	.....	.....	.....30,890	.....	.....30,890	30,890	.....	.....	.....	.....2,471	.....	.....
REC 25902710.23 USD PAY [23930000.00] EUR /183152	Asset Hedge	Schedule D ..	Currency.....	BANK OF AMERICA, N.A. ... B4TYDEB6GKMZ0031MB27	.04/03/2024	.07/05/2024	.....	..... 25,902,710	1.08243670	 0	.....	.....	.....239,025	.....	.....239,025	239,025	.....	.....	.....	.....18,316	.....	.....
REC 6698982.41 USD PAY [6150000.00] EUR /183235	Asset Hedge	Schedule D ..	Currency.....	WELLS FARGO BANK, N.A. ... KB1H1DSPRFMYMCJFXT09	.04/04/2024	.07/08/2024	.....	.....6,699,892	1.08941340	 0	.....	.....	.....110,048	.....	.....110,048	110,048	.....	.....	.....	.....5,802	.....	.....
REC 677000.00 EUR PAY [732471.76] USD /183560	Asset Hedge	Schedule BA ..	Currency.....	BNP PARIBAS LONDON ... ROMJWSPFUMBP80K5P83	.04/10/2024	.07/11/2024	.....	.....732,472	1.08193761	 0	.....	.....	.....(6,685)	.....	.....(6,685)	(6,685)	.....	.....	.....	.....732	.....	.....
REC 10668784.00 USD PAY [10000000.00] EUR /183628	Asset Hedge	Schedule D ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE ... 21G119DL770XOHC3ZE78	.04/15/2024	.07/08/2024	.....	.....10,668,784	1.06687840	 0	.....	.....	.....(43,602)	.....	.....(43,602)	(43,602)	.....	.....	.....	.....9,239	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
REC 806000.00 EUR PAY [859675.41] USD /183654	Asset Hedge	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES ..	04/16/2024	07/05/2024		859,675	1.06659480		0		3,964		3,964	3,964				.608		
REC 5712480.60 USD PAY [5346000.00] EUR /183706	Asset Hedge	Schedule BA	Currency	BANK OF AMERICA, N.A.	04/17/2024	07/11/2024		5,712,481	1.06855230		0		(22,307)		(22,307)	(22,307)				5,712		
REC 132267.32 USD PAY [181000.00] CAD /183941	Asset Hedge	Schedule BA	Currency	MORGAN STANLEY CAPITAL SERVICES ..	04/24/2024	07/25/2024		132,267	.73075867		0		(76)		(76)	(76)				.187		
REC 4971948.33 USD PAY [4628000.00] EUR /184085	Asset Hedge	Schedule D	Currency	BANK OF AMERICA, N.A.	04/30/2024	07/31/2024		4,971,948	1.07431900		0		2,688		2,688	2,688				7,458		
REC 15606095.84 USD PAY [12403000.00] GBP /184208	Asset Hedge	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES ..	05/03/2024	08/05/2024		15,606,096	1.25825170		0		(76,301)		(76,301)	(76,301)				24,675		
REC 297380.21 USD PAY [405000.00] CAD /184529	Asset Hedge	Schedule BA	Currency	CITIBANK N.A.	05/14/2024	08/14/2024		297,380	.73427212		0		1,103		1,103	1,103				.536		
REC 5106742.36 USD PAY [4701844.00] EUR /184541	Asset Hedge	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES ..	05/14/2024	08/14/2024		5,106,742	1.08611480		0		58,675		58,675	58,675				9,206		
REC 3018717.13 USD PAY [2388000.00] GBP /184608	Asset Hedge	Schedule BA	Currency	ROYAL BANK OF CANADA	05/15/2024	08/15/2024		3,018,717	1.26411940		0		(94)		(94)	(94)				5,442		
REC 126562.29 USD PAY [100000.00] GBP /184671	Asset Hedge	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES ..	05/16/2024	08/05/2024		126,562	1.26562290		0		.118		.118	.118				.200		
REC 2969893.80 USD PAY [4440000.00] AUD /184730	Asset Hedge	Schedule D	Currency	THE TORONTO-DOMINION BANK	05/20/2024	08/20/2024		2,969,894	.66889500		0		5,083		5,083	5,083				5,556		
REC 10797736.95 USD PAY [9900000.00] EUR /184747	Asset Hedge	Schedule D	Currency	BNP PARIBAS LONDON	05/20/2024	08/14/2024		10,797,737	1.09068050		0		166,182		166,182	166,182				19,466		
REC 30687277.73 USD PAY [326717000.04] SEK /184834	Asset Hedge	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES ..	05/21/2024	07/05/2024		30,687,278	.09392617		0		(139,873)		(139,873)	(139,873)				21,699		
REC 10438804.69 USD PAY [9597000.00] EUR /184937	Asset Hedge	Schedule D	Currency	MORGAN STANLEY CAPITAL SERVICES ..	05/22/2024	08/22/2024		10,438,805	1.08771540		0		.130,942		.130,942	.130,942				20,215		
REC 913680.94 USD PAY [840000.00] EUR /184946	Asset Hedge	Schedule BA	Currency	MORGAN STANLEY CAPITAL SERVICES ..	05/22/2024	08/22/2024		.913,681	1.08771540		0		.11,461		.11,461	.11,461				1,769		
REC 112000.00 GBP PAY [142761.66] USD /184986	Asset Hedge	Schedule D	Currency	WELLS FARGO BANK, N.A.	05/23/2024	08/05/2024		142,762	1.27465768		0		(1,144)		(1,144)	(1,144)				.226		
REC 2613803.76 USD PAY [2400000.00] EUR /185143	Asset Hedge	Schedule D	Currency	CITIBANK N.A.	05/24/2024	08/14/2024		2,613,804	1.08908490		0		.36,136		.36,136	.36,136				4,712		
REC 3400379.18 USD PAY [3152000.00] EUR /185475	Asset Hedge	Schedule D	Currency	WELLS FARGO BANK, N.A.	06/10/2024	09/10/2024		3,400,379	1.07880050		0		.12,596		.12,596	.12,596				7,603		
REC 1034673.32 USD PAY [10903999.97] SEK /185476	Asset Hedge	Schedule D	Currency	CITIBANK N.A.	06/10/2024	07/05/2024		1,034,673	.09488934		0		.4,887		.4,887	.4,887				.732		
REC 805000.00 EUR PAY [865342.16] USD /185505	Asset Hedge	Schedule D	Currency	BNP PARIBAS LONDON	06/10/2024	07/05/2024		865,342	1.07495920		0		(2,583)		(2,583)	(2,583)				.612		

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SCHEDULE DB - PART A - SECTION 1

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Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amortization)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Reference Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
REC 530697.11 USD PAY [413000.00] GBP /185530	Asset Hedge	Schedule D ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE .. 21G119DL770XOHC3ZE78	.06/12/2024	.09/12/2024	.....	530,697	1.28498090	.....	.....0	.....	8,256	.....	8,256	8,256	.....	.....	.....	1,216	.....	.....
REC 4268574.04 USD PAY [3929000.00] EUR /185534	Asset Hedge	Schedule BA ..	Currency.....	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.06/12/2024	.09/12/2024	.....	4,268,574	1.08642760	.....	.....0	.....	42,721	.....	42,721	42,721	.....	.....	.....	9,781	.....	.....
REC 2439696.54 USD PAY [2247000.00] EUR /185566	Asset Hedge	Schedule D ..	Currency.....	ROYAL BANK OF CANADA ES71P3U8RH1GCT1XBUI1	.06/12/2024	.07/31/2024	.....	2,439,687	1.08575280	.....	.....0	.....	29,534	.....	29,534	29,534	.....	.....	.....	3,660	.....	.....
REC 1869356.50 USD PAY [1455000.00] GBP /185630	Asset Hedge	Schedule D ..	Currency.....	ROYAL BANK OF CANADA ES71P3U8RH1GCT1XBUI1	.06/12/2024	.08/08/2024	.....	1,869,357	1.28478110	.....	.....0	.....	29,936	.....	29,936	29,936	.....	.....	.....	3,100	.....	.....
REC 27086728.62 USD PAY [25232000.00] EUR /185687	Asset Hedge	Schedule D ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE .. 21G119DL770XOHC3ZE78	.06/14/2024	.09/16/2024	.....	27,086,729	1.07350700	.....	.....0	.....	(33,391)	.....	(33,391)	(33,391)	.....	.....	.....	63,524	.....	.....
REC 4721039.71 USD PAY [7135000.00] AUD /185709	Asset Hedge	Schedule D ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE .. 21G119DL770XOHC3ZE78	.06/14/2024	.09/16/2024	.....	4,721,040	66167340	.....	.....0	.....	(47,546)	.....	(47,546)	(47,546)	.....	.....	.....	11,072	.....	.....
REC 4504731.46 USD PAY [4201000.00] EUR /185717	Asset Hedge	Schedule BA ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE .. 21G119DL770XOHC3ZE78	.06/14/2024	.09/16/2024	.....	4,504,731	1.07229980	.....	.....0	.....	(10,571)	.....	(10,571)	(10,571)	.....	.....	.....	10,565	.....	.....
REC 1469408.42 USD PAY [1160000.00] GBP /185719	Asset Hedge	Schedule D ..	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX5T7XV54	.06/14/2024	.08/05/2024	.....	1,469,408	1.26673140	.....	.....0	.....	2,645	.....	2,645	2,645	.....	.....	.....	2,323	.....	.....
REC 4912911.28 USD PAY [4591000.00] EUR /185722	Asset Hedge	Schedule D ..	Currency.....	CANADIAN IMPERIAL BANK OF COMMERCE .. 21G119DL770XOHC3ZE78	.06/14/2024	.08/14/2024	.....	4,912,911	1.07011790	.....	.....0	.....	(13,747)	.....	(13,747)	(13,747)	.....	.....	.....	8,857	.....	.....
REC 4994108.81 USD PAY [3939000.00] GBP /185810	Asset Hedge	Schedule BA, D	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX5T7XV54	.06/17/2024	.09/17/2024	.....	4,994,109	1.26786210	.....	.....0	.....	11,495	.....	11,495	11,495	.....	.....	.....	11,712	.....	.....
REC 6227465.94 USD PAY [10188000.00] NZD /185816	Asset Hedge	Schedule BA, D	Currency.....	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.06/17/2024	.09/17/2024	.....	6,227,466	61125500	.....	.....0	.....	19,219	.....	19,219	19,219	.....	.....	.....	14,605	.....	.....
REC 928500.92 USD PAY [731000.00] GBP /185914	Asset Hedge	Schedule BA, D	Currency.....	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.06/18/2024	.09/19/2024	.....	928,501	1.27017910	.....	.....0	.....	3,808	.....	3,808	3,808	.....	.....	.....	2,226	.....	.....
REC 43053028.44 USD PAY [39907000.00] EUR /185932	Asset Hedge	Schedule BA, D	Currency.....	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.06/18/2024	.09/19/2024	.....	43,053,028	1.07883400	.....	.....0	.....	119,756	.....	119,756	119,756	.....	.....	.....	103,238	.....	.....
REC 538860.01 USD PAY [809000.00] AUD /185958	Asset Hedge	Schedule BA, D	Currency.....	THE TORONTO-DOMINION BANK PT30B789TSUIDF371261	.06/18/2024	.08/20/2024	.....	538,860	66608159	.....	.....0	.....	(1,332)	.....	(1,332)	(1,332)	.....	.....	.....	1,008	.....	.....
REC 1899000.00 NZD PAY [1163139.40] USD /186019	Asset Hedge	Schedule BA, D	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX5T7XV54	.06/20/2024	.09/17/2024	.....	1,163,139	61250100	.....	.....0	.....	(5,733)	.....	(5,733)	(5,733)	.....	.....	.....	2,728	.....	.....
REC 1955527.34 USD PAY [2924000.00] AUD /186036	Asset Hedge	Schedule BA, D	Currency.....	CITIBANK N.A. E570DZIWZ7FF32TWEFA76	.06/20/2024	.09/16/2024	.....	1,955,527	66878500	.....	.....0	.....	(1,090)	.....	(1,090)	(1,090)	.....	.....	.....	4,586	.....	.....
REC 237720.96 USD PAY [356000.00] AUD /186047	Asset Hedge	Schedule BA, D	Currency.....	THE TORONTO-DOMINION BANK PT30B789TSUIDF371261	.06/20/2024	.08/02/2024	.....	237,721	66775551	.....	.....0	.....	113	.....	113	113	.....	.....	.....	357	.....	.....
REC 5362575.50 USD PAY [5000000.00] EUR /186058	Asset Hedge	Schedule BA, D	Currency.....	WELLS FARGO BANK, N.A. KB1H1DSPRFMYMCUFXT09	.06/20/2024	.07/08/2024	.....	5,362,576	1.07251510	.....	.....0	.....	5,103	.....	5,103	5,103	.....	.....	.....	4,644	.....	.....
REC 1900000.00 NZD PAY [1160410.56] USD /186340	Asset Hedge	Schedule BA, D	Currency.....	BARCLAYS BANK PLC G5GSEF7VJP5170UK5573	.06/27/2024	.07/01/2024	.....	1,160,411	61074240	.....	.....0	.....	(1,885)	.....	(1,885)	(1,885)	.....	.....	.....	580	.....	.....

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART A - SECTION 1

Showing all Options, Caps, Floors, Collars, Swaps and Forwards Open as of Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Exchange, Counterparty or Central Clearinghouse	Trade Date	Date of Maturity or Expiration	Number of Contracts	Notional Amount	Strike Price, Rate or Index Received (Paid)	Cumulative Prior Year(s) Initial Cost of Un-discounted Premium (Received) Paid	Current Year Initial Cost of Un-discounted Premium (Received) Paid	Current Year Income	Book/ Adjusted Carrying Value	Code	Fair Value	Unrealized Valuation Increase/ (Decrease)	Total Foreign Exchange Change in B./A.C.V.	Current Year's (Amorti-zation)/ Accretion	Adjustment to Carrying Value of Hedged Item	Potential Exposure	Credit Quality of Refer-ence Entity	Hedge Effectiveness at Inception and at Quarter-end (b)
REC 1160000.00 GBP PAY [1468633.20] USD /186341	Asset Hedge	Schedule BA, D	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX57XV54	.06/27/2024	.08/05/2024	.....	.....1,468,633	1.26606310	.....	.....0	.....	.....(1,874)	.....	.....(1,874)	(1,874)	.....	.....	.....	.....2,322	.....	.....
REC 4727439.86 USD PAY [4402000.00] EUR /186349	Asset Hedge	Schedule BA, D	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX57XV54	.06/27/2024	.07/31/2024	.....	.....4,727,440	1.07393000	.....	.....0	.....	.....4,828	.....	.....4,828	4,828	.....	.....	.....	.....7,091	.....	.....
REC 4333000.00 EUR PAY [4646839.19] USD /186350	Asset Hedge	Schedule BA, D	Currency.....	MORGAN STANLEY CAPITAL SERVICES .. 17331LVCZKQKX57XV54	.06/27/2024	.07/01/2024	.....	.....4,646,839	1.07243000	.....	.....0	.....	.....(4,797)	.....	.....(4,797)	(4,797)	.....	.....	.....	.....2,323	.....	.....
1439999999. Subtotal - Forwards - Hedging Other										0	0	0	1,033,544	XXX	1,033,544	1,685,926	0	0	0	624,181	XXX	XXX
1479999999. Subtotal - Forwards										0	0	0	1,033,544	XXX	1,033,544	1,685,926	0	0	0	624,181	XXX	XXX
1509999999. Subtotal - SSAP No. 108 Adjustments										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1689999999. Subtotal - Hedging Effective Excluding Variable Annuity Guarantees Under SSAP No.108										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1699999999. Subtotal - Hedging Effective Variable Annuity Guarantees Under SSAP No.108										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1709999999. Subtotal - Hedging Other										339,461,903	346,286,354	(221,052,425)	330,964,335	XXX	952,331,904	63,248,487	0	(240,440,604)	0	87,770,783	XXX	XXX
1719999999. Subtotal - Replication										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1729999999. Subtotal - Income Generation										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1739999999. Subtotal - Other										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1749999999. Subtotal - Adjustments for SSAP No. 108 Derivatives										0	0	0	0	XXX	0	0	0	0	0	0	XXX	XXX
1759999999 - Totals										339,461,903	346,286,354	(221,052,425)	330,964,335	XXX	952,331,904	63,248,487	0	(240,440,604)	0	87,770,783	XXX	XXX

(a)	Code	Description of Hedged Risk(s)
(b)	Code	Financial or Economic Impact of the Hedge at the End of the Reporting Period

SCHEDULE DB - PART B - SECTION 1

Futures Contracts Open as of the Current Statement Date

1	2	3	4	5	6	7	8	9	10	11	12	13	14	Highly Effective Hedges			18	19	20	21	22
														15	16	17					
Ticker Symbol	Number of Contracts	Notional Amount	Description	Description of Item(s) Hedged, Used for Income Generation or Replicated	Schedule/ Exhibit Identifier	Type(s) of Risk(s) (a)	Date of Maturity or Expiration	Exchange	Trade Date	Transaction Price	Reporting Date Price	Fair Value	Book/ Adjusted Carrying Value	Cumulative Variation Margin	Deferred Variation Margin	Change in Variation Margin Gain (Loss) Used to Adjust Basis of Hedged Item	Cumulative Variation Margin for All Other Hedges	Change in Variation Margin Gain (Loss) Recognized in Current Year	Potential Exposure	Hedge Effectiveness at Inception and at Quarter-end (b)	Value of One (1) Point
TYU4	131	13,100,000	Long /US 10Y NOTE FUTURE II /186010	Portfolio Hedge	Schedule BA, D	Interest	09/30/2024	CBOT	06/18/2024	110.7969	109.9800	(106,794)	(106,794)				(106,794)	(106,794)	262,000		1,000
TYU4	262	26,200,000	Long /US 10Y NOTE FUTURE II /186338	LIABILITY HEDGE	Schedule BA, D	Interest	09/30/2024	CBOT	06/27/2024	109.9688	109.9800	3,381	3,381				3,381	3,381	524,000		1,000
TYU4	1,527	152,700,000	Long /US 10Y NOTE FUTURE II /186363	LIABILITY HEDGE	Schedule BA, D	Interest	09/30/2024	CBOT	06/27/2024	110.2500	109.9800	(409,763)	(409,763)				(409,763)	(409,763)	3,054,000		1,000
TUU4	126	25,200,000	Long /US 2YR NOTE FUTURE II /186362	LIABILITY HEDGE	Schedule BA, D	Interest	09/30/2024	CBOT	06/27/2024	102.1211	102.1100	(3,277)	(3,277)				(3,277)	(3,277)	138,600		2,000
FVU4	94	9,400,000	Long /US 5YR NOTE FUTURE II /186339	LIABILITY HEDGE	Schedule BA, D	Interest	09/30/2024	CBOT	06/27/2024	106.4844	106.5800	8,571	8,571				8,571	8,571	122,200		1,000
FVU4	1,375	137,500,000	Long /US 5YR NOTE FUTURE II /186364	LIABILITY HEDGE	Schedule BA, D	Interest	09/30/2024	CBOT	06/27/2024	106.6875	106.5800	(153,924)	(153,924)				(153,924)	(153,924)	1,787,500		1,000
1539999999. Subtotal - Long Futures - Hedging Other												(661,806)	(661,806)	0	0	0	(661,806)	(661,806)	5,888,300	XXX	XXX
1579999999. Subtotal - Long Futures												(661,806)	(661,806)	0	0	0	(661,806)	(661,806)	5,888,300	XXX	XXX
1649999999. Subtotal - Short Futures												0	0	0	0	0	0	0	0	XXX	XXX
1679999999. Subtotal - SSAP No. 108 Adjustments												0	0	0	0	0	0	0	0	XXX	XXX
1689999999. Subtotal - Hedging Effective Excluding Variable Annuity Guarantees Under SSAP No.108												0	0	0	0	0	0	0	0	XXX	XXX
1699999999. Subtotal - Hedging Effective Variable Annuity Guarantees Under SSAP No.108												0	0	0	0	0	0	0	0	XXX	XXX
1709999999. Subtotal - Hedging Other												(661,806)	(661,806)	0	0	0	(661,806)	(661,806)	5,888,300	XXX	XXX
1719999999. Subtotal - Replication												0	0	0	0	0	0	0	0	XXX	XXX
1729999999. Subtotal - Income Generation												0	0	0	0	0	0	0	0	XXX	XXX
1739999999. Subtotal - Other												0	0	0	0	0	0	0	0	XXX	XXX
1749999999. Subtotal - Adjustments for SSAP No. 108 Derivatives												0	0	0	0	0	0	0	0	XXX	XXX
1759999999 - Totals												(661,806)	(661,806)	0	0	0	(661,806)	(661,806)	5,888,300	XXX	XXX

Broker Name			Beginning Cash Balance	Cumulative Cash Change	Ending Cash Balance
Total Net Cash Deposits					

(a)	Code	Description of Hedged Risk(s)
(b)	Code	Financial or Economic Impact of the Hedge at the End of the Reporting Period

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE DB - PART D - SECTION 1

Counterparty Exposure for Derivative Instruments Open as of Current Statement Date

1	2	3	Counterparty Offset		Book/Adjusted Carrying Value			Fair Value			12	13
			4	5	6	7	8	9	10	11		
Description of Exchange, Counterparty or Central Clearinghouse	Master Agreement (Y or N)	Credit Support Annex (Y or N)	Fair Value of Acceptable Collateral	Present Value of Financing Premium	Contracts With Book/Adjusted Carrying Value >0	Contracts With Book/Adjusted Carrying Value <0	Exposure Net of Collateral	Contracts With Fair Value >0	Contracts With Fair Value <0	Exposure Net of Collateral	Potential Exposure	Off-Balance Sheet Exposure
0199999999 - Aggregate Sum of Exchange Traded Derivatives	XXX	XXX	XXX		448,836,261	(285,319,799)	448,836,261	438,956,842	(673,758)	438,956,842	5,888,300	5,888,300
Bank of America, N.A.	Y.....	Y.....	160,980,000		15,327,908	(1,624,220)	0	47,123,199	(22,307)	0	31,486	
Barclays Bank PLC	Y.....	Y.....				(1,885)	0		(1,885)	0	580	
Barclays Bank PLC	Y.....	Y.....	73,020,000		34,440,821	(23,877,939)	0	36,458,381		0	2,226	
BNP Paribas London	Y.....	Y.....	143,060,000		54,765,110	(21,391,420)	0	92,104,229	(352,756)	0	241,116	
Canadian Imperial Bank of Commerce	Y.....	Y.....			155,388	(148,857)	6,531	155,388	(148,857)	6,531	114,435	114,435
Citibank N.A.	Y.....	Y.....	109,579,840		54,154,479	(2,033,773)	0	110,778,744	(2,033,773)	0	1,093,242	
Credit Agricole	Y.....	Y.....	2,380,000		1,931,978	(95,169)	0	1,931,978	(95,169)	0	2,307,979	1,764,788
Goldman Sachs International	Y.....	Y.....	55,440,000		3,191,752	(2,091,309)	0	6,618,944		0		
JPMorgan Chase Bank, N.A.	Y.....	Y.....	88,950,000		25,728,471	(8,135,689)	0	89,792,934	(7,603,292)	0	2,979,878	
Morgan Stanley & Co. International PLC	Y.....	Y.....	10,425,000		9,061,514	(6,472,073)	0	9,896,376		0		
Morgan Stanley Capital Services	Y.....	Y.....				(4,797)	0		(4,797)	0	2,323	
Morgan Stanley Capital Services	Y.....	Y.....			255,018	(2,374,550)	0	255,018	(2,374,550)	0	847,229	
Royal Bank of Canada	Y.....	Y.....	82,300,000		18,262,408	(17,643,098)	0	25,049,874	(5,977,537)	0	536,855	
The Toronto-Dominion Bank	Y.....	Y.....			5,196	(1,332)	3,863	5,196	(1,332)	3,863	6,921	6,921
The Toronto-Dominion Bank	Y.....	Y.....			125,851		125,851	125,851		125,851	252,154	252,154
UBS AG	Y.....	Y.....	11,380,000		8,631,388	(1,247,426)	0	11,438,996		58,996		
Wells Fargo Bank, N.A.	Y.....	Y.....	90,602,364		31,705,370	(14,904,745)	0	92,492,262	(6,043,128)	0	1,529,596	
0299999999. Total NAIC 1 Designation			828,117,204	0	257,742,652	(102,048,282)	136,246	524,227,371	(24,659,382)	195,242	9,946,020	2,138,298
Societe General	Y.....	Y.....	344,410,000		11,748,678	(7,146,104)	0	6,353,478	976,423	0		
0399999999. Total NAIC 2 Designation			344,410,000	0	11,748,678	(7,146,104)	0	6,353,478	976,423	0	0	0
0899999999. Aggregate Sum of Central Clearinghouses (Excluding Exchange Traded)					126,053,262	(119,564,138)	6,489,124	126,053,262	(119,564,138)	6,489,124	77,824,763	77,824,763
0999999999 - Gross Totals			1,172,527,204	0	844,380,852	(514,078,323)	455,461,631	1,095,590,953	(143,920,855)	445,641,209	93,659,083	85,851,361
1. Offset per SSAP No. 64												
2. Net after right of offset per SSAP No. 64					844,380,852	(514,078,323)						

SCHEDULE DB - PART D - SECTION 2

Collateral for Derivative Instruments Open as of Current Statement Date

Collateral Pledged by Reporting Entity

1	2	3	4	5	6	7	8	9
Exchange, Counterparty or Central Clearinghouse	Type of Asset Pledged	CUSIP Identification	Description	Fair Value	Par Value	Book/Adjusted Carrying Value	Maturity Date	Type of Margin (I, V or IV)
Morgan Stanley & Co. LLC	Cash.....	9R7GPTS07KV3UQJZ0078 ..	Cash Collateral	(87,143,692)	(87,143,692)	(87,143,692) .....	.....	I.....
Morgan Stanley & Co. LLC CME	Cash.....	9R7GPTS07KV3UQJZ0078 ..	Cash Collateral	(11,783,070)	(11,783,070)	(11,783,070) .....	.....	V.....
Morgan Stanley Capital Services	Cash.....	17331LVCZKQKX5T7XV54 ..	Cash Collateral	(1,780,000)	(1,780,000)	(1,780,000) .....	.....	V.....
Morgan Stanley & Co. LLC	Cash.....	9R7GPTS07KV3UQJZ0078 ..	Cash Collateral	(673,758)	(673,758)	(673,758) .....	.....	V.....
Morgan Stanley & Co. LLC	Corporate.....	20030N-DH-1	Comcast Corporation	(31,180,984)	(38,000,000)	(21,826,689)	04/01/2040 ..	I.....
Morgan Stanley & Co. LLC	Corporate.....	05723K-AF-7	BAKER HUGHES LLC/CO-OBL	(6,388,922)	(8,000,000)	(4,472,245)	12/15/2047 ..	I.....
Morgan Stanley & Co. LLC	Corporate.....	00287Y-BX-6	ABBVIE INC.	(11,060,273)	(12,000,000)	(7,742,191)	11/21/2029 ..	I.....
.....								
.....								
.....								
.....								
0199999999 - Total				(150,010,699)	(159,380,520)	(135,421,646)	XXX	XXX

Collateral Pledged to Reporting Entity

1	2	3	4	5	6	7	8	9
Exchange, Counterparty or Central Clearinghouse	Type of Asset Pledged	CUSIP Identification	Description	Fair Value	Par Value	Book/Adjusted Carrying Value	Maturity Date	Type of Margin (I, V or IV)
Bank Of America NA	Cash.....	B4TYDEB6GKMZ0031MB27 ..	Cash Collateral	160,980,000	160,980,000	XXX.....	.....	V.....
Barclays Bank Plc	Cash.....	G5GSEF7VJP5170UK5573 ..	Cash Collateral	73,020,000	73,020,000	XXX.....	.....	V.....
BNP Paribas	Cash.....	ROMUWSPUB8MPRO8K5P83 ..	Cash Collateral	143,060,000	143,060,000	XXX.....	.....	V.....
Citibank NA	Cash.....	E570DZWZ7FF32TWEFA76 ..	Cash Collateral	109,579,840	109,579,840	XXX.....	.....	V.....
Credit Agricole Corporate and Investment Bank	Cash.....	1VUV7VQFKUQGSJ21A208 ..	Cash Collateral	2,380,000	2,380,000	XXX.....	.....	V.....
Goldman Sachs International	Cash.....	W22LR0WP21HZNB6K528 ..	Cash Collateral	55,440,000	55,440,000	XXX.....	.....	V.....
JPMorgan Chase Bank, N.A.	Cash.....	7H6GLXDRUGGFU57RNE97 ..	Cash Collateral	88,950,000	88,950,000	XXX.....	.....	V.....
Morgan Stanley & Co International PLC	Cash.....	4POUHN3JPFGFNF3BB653 ..	Cash Collateral	10,425,000	10,425,000	XXX.....	.....	V.....
Morgan Stanley & Co. LLC	Cash.....	9R7GPTS07KV3UQJZ0078 ..	Cash Collateral	11,952	11,952	XXX.....	.....	V.....
Royal Bank of Canada	Cash.....	ES71P3U3RHI6C71XBU11 ..	Cash Collateral	82,300,000	82,300,000	XXX.....	.....	V.....
Societe Generale	Cash.....	O2RNE8IBXP4R0TD8PU41 ..	Cash Collateral	344,410,000	344,410,000	XXX.....	.....	V.....
UBS AG	Cash.....	BFMBT61CT2L1QCEMIK50 ..	Cash Collateral	11,380,000	11,380,000	XXX.....	.....	V.....
Wells Fargo Bank NA	Treasury.....	KB1H1DSPPFMYMCUFXT09 ..	US TREASURY N/B	92,451,392	104,833,000	XXX.....	09/30/2028 ..	V.....
0299999999 - Total				1,174,388,184	1,186,769,792	XXX	XXX	XXX

Schedule DB - Part E - Derivatives Hedging Variable Annuity Guarantees

N O N E

Schedule DL - Part 1 - Reinvested Collateral Assets Owned

N O N E

Schedule DL - Part 2 - Reinvested Collateral Assets Owned

N O N E

SCHEDULE E - PART 1 - CASH

Month End Depository Balances

1	2	3	4	5	Book Balance at End of Each Month During Current Quarter			9
					6	7	8	
					First Month	Second Month	Third Month	
Depository	Code	Rate of Interest	Amount of Interest Received During Current Quarter	Amount of Interest Accrued at Current Statement Date				*
Bank of New York Mellon New York, NY .....	.....	.....	.....	.....	..... 40,832,434	 98,914,225	 65,044,138	..XXX.
PNC Bank Pittsburgh, PA .....	.....	.....	.....	.....	..... ( 168,462,363)	 (202,084,078)	 (255,714,141)	..XXX.
Wells Fargo Bank / Norwest Bank Phoenix, AZ .....	.....	.....	.....	.....	..... 168,617	 184,456	 135,042	..XXX.
FHLB Cincinnati, OH .....	.....	.. 4.800	 155,956	.....	..... 22,503,987	 20,150,974	 35,070,503	..XXX.
State Street Global Services Kansas City, MO .....	.....	.....	.....	.....	..... 6,799,961	 8,234,278	 16,359,040	..XXX.
0199998. Deposits in ... depositories that do not exceed the allowable limit in any one depository (See instructions) - Open Depositories	XXX	XXX						XXX
0199999. Totals - Open Depositories	XXX	XXX	155,956	0	(98,157,364)	(74,600,145)	(139,105,418)	XXX
0299998. Deposits in ... depositories that do not exceed the allowable limit in any one depository (See instructions) - Suspended Depositories	XXX	XXX						XXX
0299999. Totals - Suspended Depositories	XXX	XXX	0	0	0	0	0	XXX
0399999. Total Cash on Deposit	XXX	XXX	155,956	0	(98,157,364)	(74,600,145)	(139,105,418)	XXX
0499999. Cash in Company's Office	XXX	XXX	XXX	XXX				XXX
.....								
.....								
.....								
.....								
.....								
.....								
.....								
.....								
0599999. Total - Cash	XXX	XXX	155,956	0	(98,157,364)	(74,600,145)	(139,105,418)	XXX

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE E - PART 2 - CASH EQUIVALENTS

Show Investments Owned End of Current Quarter

1	2	3	4	5	6	7	8	9
CUSIP	Description	Code	Date Acquired	Rate of Interest	Maturity Date	Book/Adjusted Carrying Value	Amount of Interest Due and Accrued	Amount Received During Year
0109999999	Total - U.S. Government Bonds					0	0	0
0309999999	Total - All Other Government Bonds					0	0	0
0509999999	Total - U.S. States, Territories and Possessions Bonds					0	0	0
0709999999	Total - U.S. Political Subdivisions Bonds					0	0	0
0909999999	Total - U.S. Special Revenues Bonds					0	0	0
.....	AT&T INC COMMERCIAL PAPER .....	.....	06/26/2024	0.000	07/16/2024	9,977,274	0	7,552
.....	AGILENT TECHNOLOGIES INC COMMERCIAL PAPE .....	.....	06/07/2024	0.000	07/02/2024	15,997,561	0	51,046
.....	AMCOR FLEXIBLES NORTH AMERICA INC COMMER .....	.....	06/21/2024	0.000	07/10/2024	18,474,709	0	28,020
.....	AMCOR FLEXIBLES NORTH AMERICA INC COMMER .....	.....	06/25/2024	0.000	07/17/2024	4,488,990	0	4,115
.....	AMEREN CORPORATION COMMERCIAL PAPER .....	.....	06/28/2024	0.000	08/01/2024	42,796,347	0	0
.....	AMERICAN ELECTRIC POWER COMPANY INC COMM .....	.....	06/20/2024	0.000	07/09/2024	34,757,473	0	58,306
.....	AMERICAN HONDA FINANCE CORP COMMERCIAL P .....	.....	04/16/2024	0.000	07/10/2024	34,950,593	0	411,718
.....	AMERICAN HONDA FINANCE CORPORATION COMME .....	.....	06/20/2024	0.000	09/16/2024	15,809,430	0	24,417
.....	AVANGRID INC COMMERCIAL PAPER .....	.....	05/16/2024	0.000	07/15/2024	13,969,402	0	99,602
.....	AVANGRID INC COMMERCIAL PAPER .....	.....	05/22/2024	0.000	08/01/2024	24,879,997	0	153,150
.....	BAYER CORP COMMERCIAL PAPER .....	.....	06/12/2024	0.000	07/26/2024	4,980,847	0	14,458
.....	BROWN-FORMAN CORP COMMERCIAL PAPER .....	.....	06/03/2024	0.000	07/03/2024	1,999,392	0	8,475
.....	BROWN-FORMAN CORPORATION COMMERCIAL PAPE .....	.....	06/17/2024	0.000	07/18/2024	41,093,742	0	87,096
.....	CIGNA GROUP/THE COMMERCIAL PAPER .....	.....	05/22/2024	0.000	07/02/2024	19,996,948	0	121,315
.....	CRH AMERICA FINANCE INC COMMERCIAL PAPER .....	.....	06/12/2024	0.000	09/05/2024	9,898,135	0	28,941
.....	CENTERPOINT ENERGY INC COMMERCIAL PAPER .....	.....	06/28/2024	0.000	07/01/2024	25,000,000	0	11,208
.....	DOMINION ENERGY SOUTH CAROLINA INC COMME .....	.....	06/11/2024	0.000	07/16/2024	33,422,304	0	97,900
.....	DOMINION ENERGY INC COMMERCIAL PAPER .....	.....	06/13/2024	0.000	07/11/2024	34,846,534	0	95,828
.....	DOMINION ENERGY INC COMMERCIAL PAPER .....	.....	06/13/2024	0.000	07/23/2024	14,949,168	0	41,334
.....	DUKE ENERGY CORP COMMERCIAL PAPER .....	.....	06/26/2024	0.000	08/08/2024	16,901,769	0	12,841
.....	ERAC USA FINANCE LLC COMMERCIAL PAPER .....	.....	06/26/2024	0.000	07/17/2024	46,885,429	0	40,696
.....	ENBRIDGE US INC COMMERCIAL PAPER .....	.....	06/13/2024	0.000	07/11/2024	44,930,935	0	123,785
.....	EVERGY KANSAS CENTRAL INC COMMERCIAL PAP .....	.....	06/18/2024	0.000	07/10/2024	68,805,074	0	136,655
.....	EVERSOURCE ENERGY COMMERCIAL PAPER .....	.....	06/12/2024	0.000	07/03/2024	29,990,640	0	83,974
.....	EVERSOURCE ENERGY COMMERCIAL PAPER .....	.....	06/25/2024	0.000	07/11/2024	16,973,531	0	15,842
.....	EVERSOURCE ENERGY COMMERCIAL PAPER .....	.....	06/24/2024	0.000	07/15/2024	14,967,064	0	16,414
.....	EXELON CORPORATION COMMERCIAL PAPER .....	.....	06/17/2024	0.000	07/02/2024	44,993,110	0	96,235
.....	FISERV INC COMMERCIAL PAPER .....	.....	06/26/2024	0.000	08/22/2024	13,888,693	0	10,609
.....	FISERV INC COMMERCIAL PAPER .....	.....	06/24/2024	0.000	08/28/2024	33,698,400	0	36,039
.....	FORTIVE CORP COMMERCIAL PAPER .....	.....	06/18/2024	0.000	07/19/2024	9,972,546	0	19,735
.....	FORTIVE CORP COMMERCIAL PAPER .....	.....	06/25/2024	0.000	07/24/2024	22,225,554	0	20,373
.....	GLAXOSMITHKLINE LLC COMMERCIAL PAPER .....	.....	06/26/2024	0.000	07/01/2024	12,900,000	0	9,478
.....	HP INC COMMERCIAL PAPER .....	.....	06/18/2024	0.000	07/10/2024	29,959,044	0	58,961
.....	HUBBELL INCORPORATED COMMERCIAL PAPER .....	.....	06/20/2024	0.000	07/19/2024	9,972,454	0	16,759
.....	INTEL CORP COMMERCIAL PAPER .....	.....	05/09/2024	0.000	07/08/2024	14,983,827	0	121,327
.....	INTEL CORP COMMERCIAL PAPER .....	.....	05/15/2024	0.000	07/12/2024	31,796,080	0	232,584
.....	INTERCONTINENTAL EXCHANGE INC COMMERCIAL .....	.....	06/12/2024	0.000	07/10/2024	6,491,053	0	18,808
.....	INTERCONTINENTAL EXCHANGE INC COMMERCIAL .....	.....	06/13/2024	0.000	07/11/2024	9,984,708	0	27,408
.....	INTERCONTINENTAL EXCHANGE INC COMMERCIAL .....	.....	06/28/2024	0.000	07/12/2024	12,978,262	0	5,916
.....	INTERCONTINENTAL EXCHANGE INC COMMERCIAL .....	.....	06/20/2024	0.000	07/22/2024	8,971,024	0	15,104
.....	INTERCONTINENTAL EXCHANGE INC COMMERCIAL .....	.....	06/13/2024	0.000	07/29/2024	24,892,582	0	64,769
.....	KEURIG DR PEPPER INC COMMERCIAL PAPER .....	.....	05/29/2024	0.000	07/17/2024	22,943,493	0	115,673
.....	KEURIG DR PEPPER INC COMMERCIAL PAPER .....	.....	06/26/2024	0.000	08/08/2024	24,854,222	0	19,055
.....	KINDER MORGAN INC COMMERCIAL PAPER .....	.....	06/24/2024	0.000	07/01/2024	41,600,000	0	44,327
.....	L3HARRIS TECHNOLOGIES INC COMMERCIAL PAP .....	.....	06/06/2024	0.000	07/02/2024	7,998,757	0	30,940
.....	L3HARRIS TECHNOLOGIES INC COMMERCIAL PAP .....	.....	05/03/2024	0.000	07/25/2024	9,962,321	0	91,432
.....	L3HARRIS TECHNOLOGIES INC COMMERCIAL PAP .....	.....	05/24/2024	0.000	08/21/2024	4,860,896	0	28,733
.....	MARRIOTT INTERNATIONAL INC/MD COMMERCIAL .....	.....	05/28/2024	0.000	07/10/2024	20,531,431	0	104,077
.....	MARRIOTT INTERNATIONAL INC/MD COMMERCIAL .....	.....	06/10/2024	0.000	07/25/2024	9,963,020	0	30,609
.....	MARRIOTT INTERNATIONAL INC COMMERCIAL PA .....	.....	06/28/2024	0.000	08/14/2024	14,898,570	0	6,866
.....	MARSH & MCLENNAN COMPANIES INC COMMERCIA .....	.....	06/17/2024	0.000	07/01/2024	33,000,000	0	70,583

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE E - PART 2 - CASH EQUIVALENTS

Show Investments Owned End of Current Quarter

1	2	3	4	5	6	7	8	9
CUSIP	Description	Code	Date Acquired	Rate of Interest	Maturity Date	Book/Adjusted Carrying Value	Amount of Interest Due and Accrued	Amount Received During Year
	MARSH & MCLENNAN COMPANIES INC COMMERCIAL PAPER		06/26/2024	0.000	07/08/2024	31,966,001	0	24,241
	MOHAWK INDUSTRIES INC COMMERCIAL PAPER		06/18/2024	0.000	07/09/2024	16,579,782	0	32,750
	MOHAWK INDUSTRIES INC COMMERCIAL PAPER		06/28/2024	0.000	07/12/2024	29,950,202	0	13,552
	MONDELEZ INTERNATIONAL INC COMMERCIAL PAPER		06/25/2024	0.000	07/22/2024	24,919,718	0	22,843
	MONDELEZ INTERNATIONAL INC COMMERCIAL PAPER		06/26/2024	0.000	07/24/2024	22,919,119	0	17,508
	MOSAIC CO/THE COMMERCIAL PAPER		06/11/2024	0.000	07/11/2024	28,955,397	0	88,797
	MOSAIC CO/THE COMMERCIAL PAPER		06/25/2024	0.000	07/25/2024	29,889,298	0	27,548
	NASDAQ INC COMMERCIAL PAPER		06/26/2024	0.000	07/24/2024	29,895,670	0	18,070
	NISOURCE INC COMMERCIAL PAPER		06/10/2024	0.000	07/10/2024	19,972,315	0	61,248
	OGE ENERGY CORPORATION COMMERCIAL PAPER		06/20/2024	0.000	07/03/2024	47,085,374	0	80,281
	O'REILLY AUTOMOTIVE INC COMMERCIAL PAPER		06/12/2024	0.000	07/01/2024	30,000,000	0	86,133
	O'REILLY AUTOMOTIVE INC COMMERCIAL PAPER		06/18/2024	0.000	07/16/2024	19,954,410	0	39,343
	ONEOK INC COMMERCIAL PAPER		06/21/2024	0.000	07/08/2024	23,554,836	0	35,856
	PPG INDUSTRIES INC COMMERCIAL PAPER		06/26/2024	0.000	07/18/2024	19,948,118	0	12,168
	PENSKE TRUCK LEASING CO LP COMMERCIAL PAPER		06/17/2024	0.000	07/17/2024	34,914,261	0	74,678
	PENSKE TRUCK LEASING CO LP COMMERCIAL PAPER		05/24/2024	0.000	07/19/2024	9,972,086	0	58,420
	PENSKE TRUCK LEASING CO LP COMMERCIAL PAPER		06/10/2024	0.000	08/09/2024	15,903,836	0	51,303
	PHILLIPS 66 COMMERCIAL PAPER		06/18/2024	0.000	07/03/2024	14,295,646	0	28,238
	PHILLIPS 66 COMMERCIAL PAPER		06/25/2024	0.000	07/08/2024	32,964,805	0	30,108
	PUBLIC SERVICE ENTERPRISE GROUP INCORPORATED		06/26/2024	0.000	07/10/2024	47,934,080	0	29,240
	RELX INC(PRE-REINCORPORATION) COMMERCIAL PAPER		06/24/2024	0.000	07/10/2024	9,986,361	0	10,583
	RELX INC(PRE-REINCORPORATION) COMMERCIAL PAPER		06/20/2024	0.000	07/18/2024	29,922,663	0	49,830
	RELX INC(PRE-REINCORPORATION) COMMERCIAL PAPER		06/25/2024	0.000	07/25/2024	4,981,650	0	4,567
	RYDER SYSTEM INC COMMERCIAL PAPER		05/31/2024	0.000	07/01/2024	18,000,000	0	86,180
	RYDER SYSTEM INC COMMERCIAL PAPER		06/05/2024	0.000	07/05/2024	9,993,809	0	40,059
	RYDER SYSTEM INC COMMERCIAL PAPER		06/13/2024	0.000	07/11/2024	29,954,040	0	82,374
	RYDER SYSTEM INC COMMERCIAL PAPER		06/14/2024	0.000	07/12/2024	22,960,875	0	60,205
	SHERWIN-WILLIAMS COMPANY (THE) COMMERCIAL PAPER		06/28/2024	0.000	07/22/2024	19,936,505	0	9,038
	SOUTHERN COMPANY GAS CAPITAL CORPORATION		06/28/2024	0.000	07/16/2024	9,977,198	0	4,548
	SPIRE INC COMMERCIAL PAPER		06/12/2024	0.000	07/03/2024	24,992,339	0	72,547
	SPIRE INC COMMERCIAL PAPER		06/24/2024	0.000	07/15/2024	18,460,244	0	19,814
	SPIRE INC COMMERCIAL PAPER		06/26/2024	0.000	07/17/2024	11,970,644	0	9,144
	SPIRE INC COMMERCIAL PAPER		06/24/2024	0.000	07/18/2024	28,924,459	0	41,342
	VII CREDIT INC COMMERCIAL PAPER		06/04/2024	0.000	07/10/2024	11,983,341	0	49,701
	VII CREDIT INC COMMERCIAL PAPER		06/03/2024	0.000	07/11/2024	14,976,859	0	64,417
	VII CREDIT INC COMMERCIAL PAPER		06/07/2024	0.000	07/19/2024	7,053,264	0	26,144
	VII CREDIT INC COMMERCIAL PAPER		06/26/2024	0.000	08/28/2024	13,547,320	0	11,390
	VULCAN MATERIALS COMPANY COMMERCIAL PAPER		06/18/2024	0.000	07/11/2024	64,900,316	0	129,134
	VULCAN MATERIALS COMPANY COMMERCIAL PAPER		06/25/2024	0.000	07/19/2024	13,462,773	0	12,363
	WRKCO INC COMMERCIAL PAPER		06/20/2024	0.000	07/17/2024	9,975,425	0	16,825
	WRKCO INC COMMERCIAL PAPER		06/20/2024	0.000	07/19/2024	14,958,530	0	25,230
	WRKCO INC COMMERCIAL PAPER		06/25/2024	0.000	07/23/2024	19,932,226	0	18,404
	WASTE MANAGEMENT INC COMMERCIAL PAPER		06/25/2024	0.000	07/05/2024	44,972,976	0	40,476
	XCEL ENERGY INC COMMERCIAL PAPER		05/29/2024	0.000	07/02/2024	39,993,836	0	196,236
	XCEL ENERGY INC COMMERCIAL PAPER		06/28/2024	0.000	07/12/2024	10,981,741	0	4,969
	ALIMENTATION COUCHE-TARD INC COMMERCIAL PAPER		06/11/2024	0.000	07/08/2024	32,964,529	0	112,379
	ALIMENTATION COUCHE-TARD INC COMMERCIAL PAPER		06/26/2024	0.000	07/10/2024	19,972,583	0	12,161
	ALIMENTATION COUCHE-TARD INC COMMERCIAL PAPER		06/20/2024	0.000	07/12/2024	24,957,915	0	41,943
	BELL TELEPHONE COMPANY OF CANADA OR BELL		06/17/2024	0.000	07/17/2024	19,951,006	0	42,673
	CANADIAN PACIFIC RAILWAY COMPANY COMMERCIAL PAPER		06/21/2024	0.000	07/03/2024	19,993,891	0	30,491
	CANADIAN PACIFIC RAILWAY COMPANY COMMERCIAL PAPER		06/25/2024	0.000	07/08/2024	26,971,151	0	24,679
	MAGNA INTERNATIONAL INC COMMERCIAL PAPER		05/14/2024	0.000	07/11/2024	27,956,512	0	206,878
	MAGNA INTERNATIONAL INC COMMERCIAL PAPER		05/21/2024	0.000	07/23/2024	19,931,735	0	125,985
	MAGNA INTERNATIONAL INC COMMERCIAL PAPER		06/04/2024	0.000	07/30/2024	7,964,279	0	32,972
	NUTRIEN LTD COMMERCIAL PAPER		06/20/2024	0.000	08/02/2024	9,950,672	0	16,844
	TRANSCANADA PIPELINES LTD COMMERCIAL PAPER		05/13/2024	0.000	07/01/2024	8,840,000	0	66,538

STATEMENT AS OF JUNE 30, 2024 OF THE MassMutual Ascend Life Insurance Company

SCHEDULE E - PART 2 - CASH EQUIVALENTS

Show Investments Owned End of Current Quarter

1	2	3	4	5	6	7	8	9
CUSIP	Description	Code	Date Acquired	Rate of Interest	Maturity Date	Book/Adjusted Carrying Value	Amount of Interest Due and Accrued	Amount Received During Year
.....	TRANSCANADA PIPELINES LTD COMMERCIAL PAP .....	.....	.....06/11/2024	0.000	07/02/2024	13,098,007	0	39,731
.....	TRANSCANADA PIPELINES LTD COMMERCIAL PAP .....	.....	.....06/24/2024	0.000	07/24/2024	14,947,235	0	15,985
.....	TRANSCANADA PIPELINES LTD COMMERCIAL PAP .....	.....	.....05/21/2024	0.000	07/25/2024	9,962,838	0	61,327
.....	CIE GENERALE DES ETABLISSEMENTS MICHELIN .....	.....	.....05/02/2024	0.000	07/08/2024	24,973,033	0	213,658
.....	DNB BANK ASA COMMERCIAL PAPER .....	.....	.....06/28/2024	0.000	07/08/2024	44,953,780	0	19,780
.....	MACQUARIE BANK LTD COMMERCIAL PAPER .....	.....	.....06/28/2024	0.000	08/09/2024	29,826,047	0	13,297
.....	MUFG BANK LTD (NEW YORK BRANCH) COMMERCIAL PAPER .....	.....	.....06/28/2024	0.000	07/08/2024	44,954,042	0	19,667
.....	RECKITT BENCKISER TREASURY SERVICES PLC .....	.....	.....06/28/2024	0.000	07/05/2024	3,997,608	0	1,792
.....	RECKITT BENCKISER TREASURY SERVICES PLC .....	.....	.....06/18/2024	0.000	07/12/2024	14,974,880	0	29,580
.....	RECKITT BENCKISER TREASURY SERVICES PLC .....	.....	.....06/21/2024	0.000	07/31/2024	29,861,601	0	32,110
.....	TYCO ELECTRONICS GROUP SA COMMERCIAL PAP .....	.....	.....06/26/2024	0.000	07/01/2024	46,000,000	0	44,948
1019999999.	Subtotal - Bonds - Industrial and Miscellaneous (Unaffiliated) - Issuer Obligations					2,655,441,027	0	6,194,351
1109999999.	Total - Industrial and Miscellaneous (Unaffiliated) Bonds					2,655,441,027	0	6,194,351
1309999999.	Total - Hybrid Securities					0	0	0
1509999999.	Total - Parent, Subsidiaries and Affiliates Bonds					0	0	0
1909999999.	Subtotal - Unaffiliated Bank Loans					0	0	0
2419999999.	Total - Issuer Obligations					2,655,441,027	0	6,194,351
2429999999.	Total - Residential Mortgage-Backed Securities					0	0	0
2439999999.	Total - Commercial Mortgage-Backed Securities					0	0	0
2449999999.	Total - Other Loan-Backed and Structured Securities					0	0	0
2459999999.	Total - SVO Identified Funds					0	0	0
2469999999.	Total - Affiliated Bank Loans					0	0	0
2479999999.	Total - Unaffiliated Bank Loans					0	0	0
2509999999.	Total Bonds					2,655,441,027	0	6,194,351
09248U-71-8	BLACKROCK LIQUIDITY FUND-EXEMPT MONEY MA .....	.....	.....06/28/2024	0.000 .....	..... .....	.....116,000,000	0	0
825252-40-6	INVESCO ADVISERS TREASURY PORT INSTL CL .....	.....	.....06/28/2024	0.000 .....	..... .....	.....3,976,095	0	0
8209999999.	Subtotal - Exempt Money Market Mutual Funds - as Identified by the SVO					119,976,095	0	0
8609999999.	Total Cash Equivalents					2,775,417,122	0	6,194,351