



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

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2023

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

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(Name)

(Area Code) (Telephone Number)

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(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	Elizabeth Ward Chicares	Susan Marie Cicco
Geoffrey James Craddock	Roger William Crandall	Paul Anthony LaPiana
Sears Andrew Merritt	Mark Francis Muething	Michael James O'Connor
Eric William Partlan	Arthur William Wallace III	

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

John Paul Gruber

Brian Patrick Sponaugle

President

Secretary

Treasurer

Subscribed and sworn to before me this

day of

February 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.....

OFFICERS AND DIRECTORS WHO DID NOT OCCUPY THE INDICATED POSITION IN THE PREVIOUS ANNUAL STATEMENT

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

ASSETS

	Current Year			Prior Year
	1	2	3	4
	Assets	Nonadmitted Assets	Net Admitted Assets (Cols. 1 - 2)	Net Admitted Assets
1. Bonds (Schedule D)	34,962,186,999		34,962,186,999	33,331,904,289
2. Stocks (Schedule D):				
2.1 Preferred stocks	201,026,229		201,026,229	184,968,184
2.2 Common stocks	716,418,595		716,418,595	683,285,586
3. Mortgage loans on real estate (Schedule B):				
3.1 First liens	4,256,509,561		4,256,509,561	3,088,813,560
3.2 Other than first liens.....			0	0
4. Real estate (Schedule A):				
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 (\$ (157,273,747) , Schedule E - Part 1), cash equivalents (\$ 1,944,403,033 , Schedule E - Part 2) and short-term investments (\$424,197,318 , Schedule DA)	2,211,326,604		2,211,326,604	1,991,236,955
6. Contract loans (including \$ premium notes)	29,952,551		29,952,551	31,459,162
7. Derivatives (Schedule DB)	786,690,520		786,690,520	872,965,902
8. Other invested assets (Schedule BA)	1,421,469,678		1,421,469,678	1,363,435,253
9. Receivables for securities	165,416,503		165,416,503	142,312,266
10. Securities lending reinvested collateral assets (Schedule DL)			0	0
11. Aggregate write-ins for invested assets	0	0	0	0
12. Subtotals, cash and invested assets (Lines 1 to 11)	44,750,997,240	0	44,750,997,240	41,690,381,157
13. Title plants less \$ charged off (for Title insurers only)			0	0
14. Investment income due and accrued	541,147,655		541,147,655	414,726,057
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection.....	1,064,739	5,378	1,059,361	2,479,621
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ earned but unbilled premiums)	8,787,781	4,225,358	4,562,423	5,262,831
15.3 Accrued retrospective premiums (\$) and contracts subject to redetermination (\$)			0	0
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers	2,547,295		2,547,295	1,960,978
16.2 Funds held by or deposited with reinsured companies			0	0
16.3 Other amounts receivable under reinsurance contracts	451,644,041		451,644,041	247,110,241
17. Amounts receivable relating to uninsured plans			0	0
18.1 Current federal and foreign income tax recoverable and interest thereon	15,610,486		15,610,486	89,634,229
18.2 Net deferred tax asset	300,391,626	36,129,764	264,261,862	72,205,814
19. Guaranty funds receivable or on deposit	2,034,538		2,034,538	2,079,536
20. Electronic data processing equipment and software			0	0
21. Furniture and equipment, including health care delivery assets (\$)	5,389,360	5,389,360	0	0
22. Net adjustment in assets and liabilities due to foreign exchange rates			0	0
23. Receivables from parent, subsidiaries and affiliates	719,602		719,602	43,006
24. Health care (\$) and other amounts receivable			0	0
25. Aggregate write-ins for other than invested assets	542,500,881	8,955,194	533,545,687	253,459,195
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	46,622,835,244	54,705,054	46,568,130,190	42,779,342,665
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts	443,319,567		443,319,567	103,698,994
28. Total (Lines 26 and 27)	47,066,154,811	54,705,054	47,011,449,757	42,883,041,659
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 thru 1103 plus 1198)(Line 11 above)	0	0	0	0
2501. Admitted Disallowed IMR	271,533,895		271,533,895	0
2502. Company-owned life insurance	223,142,978		223,142,978	218,662,787
2503. Accrued contractual fee income	32,372,894		32,372,894	34,796,408
2598. Summary of remaining write-ins for Line 25 from overflow page	15,451,114	8,955,194	6,495,920	0
2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above)	542,500,881	8,955,194	533,545,687	253,459,195

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

LIABILITIES, SURPLUS AND OTHER FUNDS

	1	2
	Current Year	Prior Year
1. Aggregate reserve for life contracts \$ 30,159,722,538 (Exh. 5, Line 9999999) less \$ included in Line 6.3 (including \$533,736 Modco Reserve)	30,159,722,538	24,259,873,748
2. Aggregate reserve for accident and health contracts (including \$0 Modco Reserve)	52,438,219	50,510,234
3. Liability for deposit-type contracts (Exhibit 7, Line 14, Col. 1) (including \$ Modco Reserve)	787,970,274	779,823,617
4. Contract claims:		
4.1 Life (Exhibit 8, Part 1, Line 4.4, Col. 1 less Col. 6)	164,654,288	140,168,179
4.2 Accident and health (Exhibit 8, Part 1, Line 4.4, Col. 6)	622,620	390,642
5. Policyholders' dividends/refunds to members \$ and coupons \$ due and unpaid (Exhibit 4, Line 10)	0	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 \$6,493 accident and health premiums (Exhibit 1, Part 1, Col. 1, sum of lines 4 and 14)	94,251	165,594
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 \$684,959 assumed and \$ ceded	684,959	14,213,374
9.4 Interest maintenance reserve (IMR, Line 6)	0	93,254,039
10. Commissions to agents due or accrued-life and annuity contracts \$7,033,605 accident and health \$ and deposit-type contract funds \$	7,033,605	8,900,094
11. Commissions and expense allowances payable on reinsurance assumed		
12. General expenses due or accrued (Exhibit 2, Line 12, Col. 7)	56,305,815	48,404,491
13. Transfers to Separate Accounts due or accrued (net) (including \$0 accrued for expense allowances recognized in reserves, net of reinsured allowances)	0	0
14. Taxes, licenses and fees due or accrued, excluding federal income taxes (Exhibit 3, Line 9, Col. 6)	0	2,060,039
15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses)		
15.2 Net deferred tax liability		
16. Unearned investment income	290,364	290,003
17. Amounts withheld or retained by reporting entity as agent or trustee	1,539,199	1,174,746
18. Amounts held for agents' account, including \$1,182,367 agents' credit balances	1,182,367	1,071,165
19. Remittances and items not allocated	109,425,533	232,798,384
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 (AVR, Line 16, Col. 7)	528,429,311	577,063,642
24.02 Reinsurance in unauthorized and certified (\$0) companies	0	0
24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers		12,677,297,503
24.04 Payable to parent, subsidiaries and affiliates	771,693	1,957,201
24.05 Drafts outstanding		
24.06 Liability for amounts held under uninsured plans		
24.07 Funds held under coinsurance	9,967,999,333	
24.08 Derivatives	528,221,597	700,875,712
24.09 Payable for securities	304,277,748	120,064,449
24.10 Payable for securities lending		
24.11 Capital notes \$ and interest thereon \$		
25. Aggregate write-ins for liabilities	812,010,876	236,402,971
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25)	43,483,674,590	39,946,759,827
27. From Separate Accounts Statement	443,319,567	103,698,994
28. Total liabilities (Lines 26 and 27)	43,926,994,157	40,050,458,821
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		0
33. Gross paid in and contributed surplus (Page 3, Line 33, Col. 2 plus Page 4, Line 51.1, Col. 1)	815,178,800	815,178,800
34. Aggregate write-ins for special surplus funds	271,533,895	0
35. Unassigned funds (surplus)	1,996,235,405	2,015,896,538
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 \$0 in Separate Accounts Statement)	3,082,948,100	2,831,075,338
38. Totals of Lines 29, 30 and 37 (Page 4, Line 55)	3,084,455,600	2,832,582,838
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	47,011,449,757	42,883,041,659
DETAILS OF WRITE-INS		
2501. Derivative collateral	763,875,478	209,544,587
2502. Unclaimed property	32,408,582	23,267,792
2503. Accounts payable	15,726,816	3,590,592
2598. Summary of remaining write-ins for Line 25 from overflow page	0	0
2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above)	812,010,876	236,402,971
3101.		
3102.		
3103.		
3198. Summary of remaining write-ins for Line 31 from overflow page	0	0
3199. Totals (Lines 3101 thru 3103 plus 3198)(Line 31 above)	0	0
3401. Admitted Disallowed IMR	271,533,895	
3402.		
3403.		
3498. Summary of remaining write-ins for Line 34 from overflow page	0	0
3499. Totals (Lines 3401 thru 3403 plus 3498)(Line 34 above)	271,533,895	0

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

SUMMARY OF OPERATIONS

	1 Current Year	2 Prior Year
1. Premiums and annuity considerations for life and accident and health contracts (Exhibit 1, Part 1, Line 20.4, Col. 1 less Col. 8)	8,506,770,768	(7,198,257,952)
2. Considerations for supplementary contracts with life contingencies	0	0
3. Net investment income (Exhibit of Net Investment Income, Line 17)	1,942,011,351	1,018,987,195
4. Amortization of Interest Maintenance Reserve (IMR, Line 5)	10,386,002	36,421,280
5. Separate Accounts net gain from operations excluding unrealized gains or losses	0	0
6. Commissions and expense allowances on reinsurance ceded (Exhibit 1, Part 2, Line 26.1, Col. 1)	70,233,642	496,787,124
7. Reserve adjustments on reinsurance ceded	0	0
8. Miscellaneous Income:		
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts		0
8.2 Charges and fees for deposit-type contracts	11,936,497	4,705,776
8.3 Aggregate write-ins for miscellaneous income	47,277,222	43,057,256
9. Total (Lines 1 to 8.3)	10,588,615,482	(5,598,299,321)
10. Death benefits	16,774,548	19,313,347
11. Matured endowments (excluding guaranteed annual pure endowments)	11,937,177	22,540,278
12. Annuity benefits (Exhibit 8, Part 2, Line 6.4, Cols. 4 + 5 minus Analysis of Operations Summary, Line 18, Col. 1)	715,138,835	460,170,085
13. Disability benefits and benefits under accident and health contracts	4,296,617	3,804,204
14. Coupons, guaranteed annual pure endowments and similar benefits	0	0
15. Surrender benefits and withdrawals for life contracts	2,434,702,622	1,460,476,453
16. Group conversions	0	0
17. Interest and adjustments on contract or deposit-type contract funds	156,850,177	142,273,578
18. Payments on supplementary contracts with life contingencies	0	(1,213)
19. Increase in aggregate reserves for life and accident and health contracts	5,901,776,775	(8,743,882,548)
20. Totals (Lines 10 to 19)	9,241,476,751	(6,635,305,816)
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only) (Exhibit 1, Part 2, Line 31, Col. 1)	393,686,528	364,090,995
22. Commissions and expense allowances on reinsurance assumed (Exhibit 1, Part 2, Line 26.2, Col. 1)	498,774	526,914
23. General insurance expenses and fraternal expenses (Exhibit 2, Line 10, Cols. 1, 2, 3, 4 and 6)	169,800,801	158,746,732
24. Insurance taxes, licenses and fees, excluding federal income taxes (Exhibit 3, Line 7, Cols. 1 + 2 + 3 + 5)	12,712,335	12,160,149
25. Increase in loading on deferred and uncollected premiums	(372,198)	192,875
26. Net transfers to or (from) Separate Accounts net of reinsurance	356,807,133	(22,047,053)
27. Aggregate write-ins for deductions	0	319,161,240
28. Totals (Lines 20 to 27)	10,174,610,124	(5,802,473,964)
29. Net gain from operations before dividends to policyholders, refunds to members and federal income taxes (Line 9 minus Line 28)	414,005,358	204,174,643
30. Dividends to policyholders and refunds to members	8,940	10,069
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	413,996,418	204,164,574
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	241,872,784	13,603,479
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)	172,123,634	190,561,095
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ 71,048,328 (excluding taxes of \$ (94,263,851) transferred to the IMR)	(152,868,129)	(32,534,189)
35. Net income (Line 33 plus Line 34)	19,255,505	158,026,906
CAPITAL AND SURPLUS ACCOUNT		
36. Capital and surplus, December 31, prior year (Page 3, Line 38, Col. 2)	2,832,582,838	2,878,120,622
37. Net income (Line 35)	19,255,505	158,026,906
38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (16,297,274)	165,094,149	(200,664,475)
39. Change in net unrealized foreign exchange capital gain (loss)	19,905,727	8,817,141
40. Change in net deferred income tax	209,662,035	(33,120,202)
41. Change in nonadmitted assets	(22,802,347)	(4,655,490)
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	236,182,404
44. Change in asset valuation reserve	48,634,331	(72,918,048)
45. Change in treasury stock (Page 3, Lines 36.1 and 36.2, Col. 2 minus Col. 1)	0	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		(454,367,260)
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
51.2 Transferred to capital (Stock Dividend)		
51.3 Transferred from capital		
51.4 Change in surplus as a result of reinsurance		317,161,240
52. Dividends to stockholders	(200,000,000)	
53. Aggregate write-ins for gains and losses in surplus	12,123,362	0
54. Net change in capital and surplus for the year (Lines 37 through 53)	251,872,762	(45,537,784)
55. Capital and surplus, December 31, current year (Lines 36 + 54) (Page 3, Line 38)	3,084,455,600	2,832,582,838
DETAILS OF WRITE-INS		
08.301. Contractual rider fee income	37,552,904	36,447,215
08.302. Interest on company-owned life insurance	8,921,000	6,015,989
08.303. Reinsurance experience refund	748,500	506,212
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	54,818	87,840
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398)(Line 8.3 above)	47,277,222	43,057,256
2701. Amortization of ceding commission		317,161,240
2702. Reinsurance fee		2,000,000
2703.		
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0
2799. Totals (Lines 2701 thru 2703 plus 2798)(Line 27 above)	0	319,161,240
5301. Correction of error, net of tax	12,123,362	0
5302.		
5303.		
5398. Summary of remaining write-ins for Line 53 from overflow page	0	0
5399. Totals (Lines 5301 thru 5303 plus 5398)(Line 53 above)	12,123,362	0

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

CASH FLOW

	1	2
	Current Year	Prior Year
Cash from Operations		
1. Premiums collected net of reinsurance	8,509,223,422	6,877,594,339
2. Net investment income	2,279,256,583	1,244,917,697
3. Miscellaneous income	119,187,230	540,147,485
4. Total (Lines 1 through 3)	10,907,667,235	8,662,659,521
5. Benefit and loss related payments	3,375,051,208	2,266,789,240
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	0	(22,047,053)
7. Commissions, expenses paid and aggregate write-ins for deductions	570,446,425	551,485,249
8. Dividends paid to policyholders	8,940	10,069
9. Federal and foreign income taxes paid (recovered) net of \$ (23,215,523) tax on capital gains (losses)	144,633,518	103,798,463
10. Total (Lines 5 through 9)	4,090,140,091	2,900,035,968
11. Net cash from operations (Line 4 minus Line 10)	6,817,527,144	5,762,623,553
Cash from Investments		
12. Proceeds from investments sold, matured or repaid:		
12.1 Bonds	8,260,509,253	14,058,518,365
12.2 Stocks	176,705,312	18,218,012
12.3 Mortgage loans	715,135,948	537,024,492
12.4 Real estate	0	0
12.5 Other invested assets	322,063,704	274,007,827
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	12,027	(88,759)
12.7 Miscellaneous proceeds	56,688,129	(22,325,520)
12.8 Total investment proceeds (Lines 12.1 to 12.7)	9,531,114,373	14,865,354,417
13. Cost of investments acquired (long-term only):		
13.1 Bonds	10,408,125,387	16,364,817,270
13.2 Stocks	163,489,344	109,234,027
13.3 Mortgage loans	1,881,105,539	1,107,745,261
13.4 Real estate	0	0
13.5 Other invested assets	339,973,269	300,895,779
13.6 Miscellaneous applications	796,679,588	673,935,708
13.7 Total investments acquired (Lines 13.1 to 13.6)	13,589,373,127	18,556,628,045
14. Net increase/(decrease) in contract loans and premium notes	(1,506,611)	(32,719,274)
15. Net cash from investments (Line 12.8 minus Line 13.7 minus Line 14)	(4,056,752,143)	(3,658,554,354)
Cash from Financing and Miscellaneous Sources		
16. Cash provided (applied):		
16.1 Surplus notes, capital notes	0	0
16.2 Capital and paid in surplus, less treasury stock	0	0
16.3 Borrowed funds	0	0
16.4 Net deposits on deposit-type contracts and other insurance liabilities	(136,485,911)	50,372,894
16.5 Dividends to stockholders	200,000,000	0
16.6 Other cash provided (applied)	(2,204,199,442)	(1,172,085,403)
17. Net cash from financing and miscellaneous sources (Lines 16.1 to 16.4 minus Line 16.5 plus Line 16.6)	(2,540,685,353)	(1,121,712,509)
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)	220,089,648	982,356,690
19. Cash, cash equivalents and short-term investments:		
19.1 Beginning of year	1,991,236,956	1,008,880,265
19.2 End of year (Line 18 plus Line 19.1)	2,211,326,604	1,991,236,956

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

20.0001. Bond conversions and refinancing	255,431,290	453,096,376
20.0002. Common stock conversions	34,388,517	205,249
20.0003. Bonds transferred to other invested assets	18,555,573	119,664,976
20.0004. Other invested assets transferred to common stocks	15,499,684	
20.0005. Common stocks transferred to other invested assets	6,408,000	
20.0006. Preferred stock conversions	442,451	
20.0007. Bonds transferred to mortgage loans		362,734,554
20.0008. Other invested assets transferred to bonds		17,100,287
20.0009. Net investment income payment-in-kind for bonds		1,072,948

		1	2	3	4	5	6	7	8	9
		Total	Individual Life	Group Life	Individual Annuities	Group Annuities	Accident and Health	Fraternal	Other Lines of Business	YRT Mortality Risk Only
1.	Premiums and annuity considerations for life and accident and health contracts	8,506,770,768	11,235,100	0	8,489,608,438	2,931,904	2,995,326			0
2.	Considerations for supplementary contracts with life contingencies	0	XXX	XXX			XXX	XXX		XXX
3.	Net investment income	1,942,011,351	4,283,215	30,068	1,844,881,033	90,278,729	2,538,306			0
4.	Amortization of Interest Maintenance Reserve (IMR)	10,386,002	0	0	9,904,965	481,037	0			0
5.	Separate Accounts net gain from operations excluding unrealized gains or losses	0	0	0	0	0	0	XXX		0
6.	Commissions and expense allowances on reinsurance ceded	70,233,642	1,996,991	0	66,642,780	1,439,680	154,191	XXX	0	0
7.	Reserve adjustments on reinsurance ceded	0	0	0	0	0	0	XXX		0
8.	Miscellaneous Income:									
8.1	Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	0	0	0	0	0	0	XXX		0
8.2	Charges and fees for deposit-type contracts	11,936,497	0	0	11,936,497	0	XXX	XXX		0
8.3	Aggregate write-ins for miscellaneous income	47,277,222	743,282	5,218	46,112,998	415,724	0	0	0	0
9.	Totals (Lines 1 to 8.3)	10,588,615,482	18,258,588	35,286	10,469,086,711	95,547,074	5,687,823	0	0	0
10.	Death benefits	16,774,548	16,667,190	107,358	0	0	XXX	XXX		0
11.	Matured endowments (excluding guaranteed annual pure endowments)	11,937,177	11,934,839	2,338	0	0	XXX	XXX		0
12.	Annuity benefits	715,138,835	XXX	XXX	644,468,743	70,670,092	XXX	XXX		XXX
13.	Disability benefits and benefits under accident and health contracts	4,296,617	0	0	0	0	4,296,617	XXX		0
14.	Coupons, guaranteed annual pure endowments and similar benefits	0	0	0	0	0	0	XXX		0
15.	Surrender benefits and withdrawals for life contracts	2,434,702,622	2,304,525	1,033	2,390,881,249	41,515,815	XXX	XXX		0
16.	Group conversions	0	0	0	0	0	0	XXX		0
17.	Interest and adjustments on contract or deposit-type contract funds	156,850,177	0	0	156,850,177	0	0	XXX		0
18.	Payments on supplementary contracts with life contingencies	0	0	0	0	0	XXX	XXX		0
19.	Increase in aggregate reserves for life and accident and health contracts	5,901,776,775	(15,400,608)	(156,054)	5,984,782,842	(69,377,390)	1,927,985	XXX		0
20.	Totals (Lines 10 to 19)	9,241,476,751	15,505,946	(45,325)	9,176,983,011	42,808,517	6,224,602	XXX	0	0
21.	Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	393,686,528	383,449	0	392,794,566	354,322	154,191	0	0	XXX
22.	Commissions and expense allowances on reinsurance assumed	498,774	(48,687)	0	3,824	0	543,637	XXX	0	0
23.	General insurance expenses and fraternal expenses	169,800,801	13,828,952	191,068	137,255,949	18,524,832	0	0		0
24.	Insurance taxes, licenses and fees, excluding federal income taxes	12,712,335	2,675,658	133,518	8,725,515	1,177,644	0	0		0
25.	Increase in loading on deferred and uncollected premiums	(372,198)	(370,891)	0	0	0	(1,307)	XXX		0
26.	Net transfers to or (from) Separate Accounts net of reinsurance	356,807,133	0	0	356,807,133	0	0	XXX		0
27.	Aggregate write-ins for deductions	0	0	0	0	0	0	0	0	0
28.	Totals (Lines 20 to 27)	10,174,610,124	31,974,427	279,261	10,072,569,998	62,865,315	6,921,123	0	0	0
29.	Net gain from operations before dividends to policyholders, refunds to members and federal income taxes (Line 9 minus Line 28)	414,005,358	(13,715,839)	(243,975)	396,516,713	32,681,759	(1,233,300)	0	0	0
30.	Dividends to policyholders and refunds to members	8,940	8,940	0	0	0	0	XXX		0
31.	Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	413,996,418	(13,724,779)	(243,975)	396,516,713	32,681,759	(1,233,300)	0	0	0
32.	Federal income taxes incurred (excluding tax on capital gains)	241,872,784	(2,882,203)	(51,235)	238,202,046	6,863,169	(258,993)			0
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)	172,123,634	(10,842,576)	(192,740)	158,314,667	25,818,590	(974,307)	0	0	0
34.	Policies/certificates in force end of year	459,890	43,705	2,190	364,871	47,862	1,			

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - INDIVIDUAL LIFE INSURANCE ^(b)

	1	2	3	4	5	6	7	8	9	10	11	12
	Total	Industrial Life	Whole Life	Term Life	Indexed Life	Universal Life	Universal Life With Secondary Guarantees	Variable Life	Variable Universal Life	Credit Life (c)	Other Individual Life	YRT Mortality Risk Only
1. Premiums for life contracts ^(a)	11,235,100		1,784,611	6,114,607		3,335,882						
2. Considerations for supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3. Net investment income	4,283,215		993,080	2,037,762		1,252,373						
4. Amortization of Interest Maintenance Reserve (IMR)	0											
5. Separate Accounts net gain from operations excluding unrealized gains or losses	0											
6. Commissions and expense allowances on reinsurance ceded	1,996,991		463,010	950,079		583,902						
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	0											
8.2 Charges and fees for deposit-type contracts	0											
8.3 Aggregate write-ins for miscellaneous income	743,282	0	172,333	353,620	0	217,329	0	0	0	0	0	0
9. Totals (Lines 1 to 8.3)	18,258,588	0	3,413,034	9,456,068	0	5,389,486	0	0	0	0	0	0
10. Death benefits	16,667,190		2,781,780	10,534,962		3,350,448						
11. Matured endowments (excluding guaranteed annual pure endowments)	11,934,839		75,371	11,838,130		21,338						
12. Annuity benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13. Disability benefits and benefits under accident and health contracts	0											
14. Coupons, guaranteed annual pure endowments and similar benefits	0											
15. Surrender benefits and withdrawals for life contracts	2,304,525		854,215	128,110		1,322,200						
16. Group conversions	0											
17. Interest and adjustments on contract or deposit-type contract funds	0											
18. Payments on supplementary contracts with life contingencies	0											
19. Increase in aggregate reserves for life and accident and health contracts ...	(15,400,608)		(1,413,074)	(12,866,039)		(1,121,495)						
20. Totals (Lines 10 to 19)	15,505,946	0	2,298,292	9,635,163	0	3,572,491	0	0	0	0	0	0
21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	383,449		88,904	182,428		112,117						XXX
22. Commissions and expense allowances on reinsurance assumed	(48,687)		(11,288)	(23,163)		(14,236)						
23. General insurance expenses	13,828,952		1,766,247	11,240,507		822,198						
24. Insurance taxes, licenses and fees, excluding federal income taxes	2,675,658		1,234,247	866,862		574,549						
25. Increase in loading on deferred and uncollected premiums	(370,891)		(85,993)	(176,453)		(108,445)						
26. Net transfers to or (from) Separate Accounts net of reinsurance	0											
27. Aggregate write-ins for deductions	0	0	0	0	0	0	0	0	0	0	0	0
28. Totals (Lines 20 to 27)	31,974,427	0	5,290,409	21,725,344	0	4,958,674	0	0	0	0	0	0
29. Net gain from operations before dividends to policyholders, refunds to members and federal income taxes (Line 9 minus Line 28)	(13,715,839)	0	(1,877,375)	(12,269,276)	0	430,812	0	0	0	0	0	0
30. Dividends to policyholders and refunds to members	8,940			8,940								
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	(13,724,779)	0	(1,877,375)	(12,278,216)	0	430,812	0	0	0	0	0	0
32. Federal income taxes incurred (excluding tax on capital gains)	(2,882,203)		(394,249)	(2,578,425)		90,471						
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)	(10,842,576)	0	(1,483,126)	(9,699,791)	0	340,341	0	0	0	0	0	0
34. Policies/certificates in force end of year	43,705		20,431	13,687		9,587						
DETAILS OF WRITE-INS												
08.301. Reinsurance experience refund	743,282		172,333	353,620		217,329						
08.302.												
08.303.												
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	0	0	0	0	0	0	0	0	0	0	0	0
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above)	743,282	0	172,333	353,620	0	217,329	0	0	0	0	0	0
2701.												
2702.												
2703.												
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0	0	0	0	0	0	0	0	0	0	0
2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above)	0	0	0	0	0	0	0	0	0	0	0	0

(a) Include premium amounts for preneed plans included in Line 1

(b) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

(c) Individual and Group Credit Life are combined and included on page. (Indicate whether included with Individual or Group.)

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY
ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - GROUP LIFE INSURANCE (c)

	1	2	3	4	5	6	7	8	9
	Total	Whole Life	Term Life	Universal Life	Variable Life	Variable Universal Life	Credit Life (d)	Other Group Life (a)	YRT Mortality Risk Only
1. Premiums for life contracts (b)	0								
2. Considerations for supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3. Net investment income	30,068	30,068							
4. Amortization of Interest Maintenance Reserve (IMR)	0								
5. Separate Accounts net gain from operations excluding unrealized gains or losses	0								
6. Commissions and expense allowances on reinsurance ceded	0								
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	0								
8.2 Charges and fees for deposit-type contracts	0								
8.3 Aggregate write-ins for miscellaneous income	5,218	5,218	0	0	0	0	0	0	0
9. Totals (Lines 1 to 8.3)	35,286	35,286	0	0	0	0	0	0	0
10. Death benefits	107,358	107,358							
11. Matured endowments (excluding guaranteed annual pure endowments)	2,338	2,338							
12. Annuity benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13. Disability benefits and benefits under accident and health contracts	0								
14. Coupons, guaranteed annual pure endowments and similar benefits	0								
15. Surrender benefits and withdrawals for life contracts	1,033	1,033							
16. Group conversions	0								
17. Interest and adjustments on contract or deposit-type contract funds	0								
18. Payments on supplementary contracts with life contingencies	0								
19. Increase in aggregate reserves for life and accident and health contracts	(156,054)	(156,054)							
20. Totals (Lines 10 to 19)	(45,325)	(45,325)	0	0	0	0	0	0	0
21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	0								XXX
22. Commissions and expense allowances on reinsurance assumed	0								
23. General insurance expenses	191,068	191,068							
24. Insurance taxes, licenses and fees, excluding federal income taxes	133,518	133,518							
25. Increase in loading on deferred and uncollected premiums	0								
26. Net transfers to or (from) Separate Accounts net of reinsurance	0								
27. Aggregate write-ins for deductions	0	0	0	0	0	0	0	0	0
28. Totals (Lines 20 to 27)	279,261	279,261	0	0	0	0	0	0	0
29. Net gain from operations before dividends to policyholders, refunds to members and federal income taxes (Line 9 minus Line 28)	(243,975)	(243,975)	0	0	0	0	0	0	0
30. Dividends to policyholders and refunds to members	0								
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	(243,975)	(243,975)	0	0	0	0	0	0	0
32. Federal income taxes incurred (excluding tax on capital gains)	(51,235)	(51,235)							
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)	(192,740)	(192,740)	0	0	0	0	0	0	0
34. Policies/certificates in force end of year	2,190	2,190							
DETAILS OF WRITE-INS									
08.301. Reinsurance experience refund	5,218	5,218							
08.302.									
08.303.									
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	0	0	0	0	0	0	0	0	0
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above)	5,218	5,218	0	0	0	0	0	0	0
2701.									
2702.									
2703.									
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0	0	0	0	0	0	0	0
2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above)	0	0	0	0	0	0	0	0	0

(a) Includes the following amounts for FEGLI/SGLI: Line 1 , Line 10 , Line 16 , Line 23 , Line 24
(b) Include premium amounts for preneed plans included in Line 1
(c) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.
(d) Individual and Group Credit Life are combined and included on page. (Indicate whether included with Individual or Group.)

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY
ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - INDIVIDUAL ANNUITIES ^(a)

	1	Deferred				6 Life Contingent Payout (Immediate and Annuitizations)	7 Other Annuities
		2	3	4	5		
	Total	Fixed Annuities	Indexed Annuities	Variable Annuities with Guarantees	Variable Annuities Without Guarantees		
1. Premiums for individual annuity contracts	8,489,608,438	4,234,883,928	4,216,593,455			38,131,055	
2. Considerations for supplementary contracts with life contingencies	0	XXX	XXX	XXX	XXX		XXX
3. Net investment income	1,844,881,033	681,731,874	1,148,633,787			14,515,372	
4. Amortization of Interest Maintenance Reserve (IMR)	9,904,965	3,498,415	6,326,657			79,893	
5. Separate Accounts net gain from operations excluding unrealized gains or losses	0						
6. Commissions and expense allowances on reinsurance ceded	66,642,780	22,276,145	43,862,794			503,841	
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	0						
8.2 Charges and fees for deposit-type contracts	11,936,497	11,936,497					
8.3 Aggregate write-ins for miscellaneous income	46,112,998	3,056,482	42,987,470	0	0	69,046	0
9. Totals (Lines 1 to 8.3)	10,469,086,711	4,957,383,341	5,458,404,163	0	0	53,299,207	0
10. Death benefits	0						
11. Matured endowments (excluding guaranteed annual pure endowments)	0						
12. Annuity benefits	644,468,743	233,740,569	360,988,959			49,739,215	
13. Disability benefits and benefits under accident and health contracts	0						
14. Coupons, guaranteed annual pure endowments and similar benefits	0						
15. Surrender benefits and withdrawals for life contracts	2,390,881,249	436,402,847	1,953,030,636			1,447,766	
16. Group conversions	0						
17. Interest and adjustments on contract or deposit-type contract funds	156,850,177	156,850,177					
18. Payments on supplementary contracts with life contingencies	0						
19. Increase in aggregate reserves for life and accident and health contracts	5,984,782,842	3,784,204,429	2,166,561,785			34,016,628	
20. Totals (Lines 10 to 19)	9,176,983,011	4,611,198,022	4,480,581,380	0	0	85,203,609	0
21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	392,794,566	118,956,112	273,838,454				
22. Commissions and expense allowances on reinsurance assumed	3,824	3,824					
23. General insurance expenses	137,255,949	50,969,879	84,630,195			1,655,875	
24. Insurance taxes, licenses and fees, excluding federal income taxes	8,725,515	3,240,212	5,380,037			105,266	
25. Increase in loading on deferred and uncollected premiums	0						
26. Net transfers to or (from) Separate Accounts net of reinsurance.....	356,807,133		356,807,133				
27. Aggregate write-ins for deductions	0	0	0	0	0	0	0
28. Totals (Lines 20 to 27)	10,072,569,998	4,784,368,049	5,201,237,199	0	0	86,964,750	0
29. Net gain from operations before dividends to policyholders, refunds to members and federal income taxes (Line 9 minus Line 28)	396,516,713	173,015,292	257,166,964	0	0	(33,665,543)	0
30. Dividends to policyholders and refunds to members	0						
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	396,516,713	173,015,292	257,166,964	0	0	(33,665,543)	0
32. Federal income taxes incurred (excluding tax on capital gains)	238,202,046	77,690,196	167,581,614			(7,069,764)	
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)	158,314,667	95,325,096	89,585,350	0	0	(26,595,779)	0
34. Policies/certificates in force end of year	364,871	141,567	219,009			4,295	
DETAILS OF WRITE-INS							
08.301. Contractual rider fee income	37,552,904	33,072	37,519,832				
08.302. Interest on company-owned life insurance	8,507,815	3,004,945	5,434,246			68,624	
08.303. Miscellaneous income	52,279	18,465	33,392			422	
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	0	0	0	0	0	0	0
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above)	46,112,998	3,056,482	42,987,470	0	0	69,046	0
2701.							
2702.							
2703.							
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0	0	0	0	0	0
2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above)	0	0	0	0	0	0	0

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which which columns are affected.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY
ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - GROUP ANNUITIES (a)

	1 Total	Deferred				6 Life Contingent Payout (Immediate and Annuitizations)	7 Other Annuities
		2 Fixed Annuities	3 Indexed Annuities	4 Variable Annuities with Guarantees	5 Variable Annuities Without Guarantees		
1. Premiums for group annuity contracts	2,931,904	2,541,637				390,267	
2. Considerations for supplementary contracts with life contingencies	0	XXX	XXX	XXX	XXX		XXX
3. Net investment income	90,278,729	16,581,410				73,697,319	
4. Amortization of Interest Maintenance Reserve (IMR)	481,037	129,450				351,587	
5. Separate Accounts net gain from operations excluding unrealized gains or losses	0						
6. Commissions and expense allowances on reinsurance ceded	1,439,680	1,439,680					
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	0						
8.2 Charges and fees for deposit-type contracts	0						
8.3 Aggregate write-ins for miscellaneous income	415,724	111,874	0	0	0	303,850	0
9. Totals (Lines 1 to 8.3)	95,547,074	20,804,051	0	0	0	74,743,023	0
10. Death benefits	0						
11. Matured endowments (excluding guaranteed annual pure endowments)	0						
12. Annuity benefits	70,670,092	3,663,054				67,007,038	
13. Disability benefits and benefits under accident and health contracts	0						
14. Coupons, guaranteed annual pure endowments and similar benefits	0						
15. Surrender benefits and withdrawals for life contracts	41,515,815	40,468,479				1,047,336	
16. Group conversions	0						
17. Interest and adjustments on contract or deposit-type contract funds	0						
18. Payments on supplementary contracts with life contingencies	0						
19. Increase in aggregate reserves for life and accident and health contracts	(69,377,390)	(16,338,851)				(53,038,539)	
20. Totals (Lines 10 to 19)	42,808,517	27,792,682	0	0	0	15,015,835	0
21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	354,322	354,322					
22. Commissions and expense allowances on reinsurance assumed	0						
23. General insurance expenses	18,524,832	11,489,681				7,035,151	
24. Insurance taxes, licenses and fees, excluding federal income taxes	1,177,644	730,412				447,232	
25. Increase in loading on deferred and uncollected premiums	0						
26. Net transfers to or (from) Separate Accounts net of reinsurance.....	0						
27. Aggregate write-ins for deductions	0	0	0	0	0	0	0
28. Totals (Lines 20 to 27)	62,865,315	40,367,097	0	0	0	22,498,218	0
29. Net gain from operations before dividends to policyholders, refunds to members and federal income taxes (Line 9 minus Line 28)	32,681,759	(19,563,046)	0	0	0	52,244,805	0
30. Dividends to policyholders and refunds to members	0						
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	32,681,759	(19,563,046)	0	0	0	52,244,805	0
32. Federal income taxes incurred (excluding tax on capital gains)	6,863,169	(4,108,240)				10,971,409	
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)	25,818,590	(15,454,806)	0	0	0	41,273,396	0
34. Policies/certificates in force end of year	47,862	29,558				18,304	
DETAILS OF WRITE-INS							
08.301. Interest on company-owned life insurance	413,185	111,191				301,994	
08.302. Miscellaneous income	2,539	683				1,856	
08.303.							
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	0	0	0	0	0	0	0
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above)	415,724	111,874	0	0	0	303,850	0
2701.							
2702.							
2703.							
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0	0	0	0	0	0
2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above)	0	0	0	0	0	0	0

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY
ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - ACCIDENT AND HEALTH (a)

	1	Comprehensive (Hospital & Medical)		4	5	6	7	8	9	10	11	12	13
		2	3										
		Individual	Group										
	Total			Medicare Supplement	Vision Only	Dental Only	Federal Employees Health Benefits Plan	Title XVIII Medicare	Title XIX Medicaid	Credit A&H	Disability Income	Long-Term Care	Other Health
1. Premiums for accident and health contracts	2,995,326											2,995,326	
2. Considerations for supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
3. Net investment income	2,538,306											2,538,306	
4. Amortization of Interest Maintenance Reserve (IMR)	0												
5. Separate Accounts net gain from operations excluding unrealized gains or losses	0												
6. Commissions and expense allowances on reinsurance ceded	154,191											154,191	
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	0												
8.2 Charges and fees for deposit-type contracts	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
8.3 Aggregate write-ins for miscellaneous income	0	0	0	0	0	0	0	0	0	0	0	0	0
9. Totals (Lines 1 to 8.3)	5,687,823	0	0	0	0	0	0	0	0	0	0	5,687,823	0
10. Death benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
11. Matured endowments (excluding guaranteed annual pure endowments)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
12. Annuity benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13. Disability benefits and benefits under accident and health contracts	4,296,617											4,296,617	
14. Coupons, guaranteed annual pure endowments and similar benefits	0												
15. Surrender benefits and withdrawals for life contracts	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
16. Group conversions	0												
17. Interest and adjustments on contract or deposit-type contract funds	0												
18. Payments on supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
19. Increase in aggregate reserves for life and accident and health contracts	1,927,985											1,927,985	
20. Totals (Lines 10 to 19)	6,224,602	0	0	0	0	0	0	0	0	0	0	6,224,602	0
21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	154,191											154,191	
22. Commissions and expense allowances on reinsurance assumed	543,637											543,637	
23. General insurance expenses	0												
24. Insurance taxes, licenses and fees, excluding federal income taxes	0												
25. Increase in loading on deferred and uncollected premiums	(1,307)											(1,307)	
26. Net transfers to or (from) Separate Accounts net of reinsurance	0												
27. Aggregate write-ins for deductions	0	0	0	0	0	0	0	0	0	0	0	0	0
28. Totals (Lines 20 to 27)	6,921,123	0	0	0	0	0	0	0	0	0	0	6,921,123	0
29. Net gain from operations before dividends to policyholders, and refunds to members and federal income taxes (Line 9 minus Line 28)	(1,233,300)	0	0	0	0	0	0	0	0	0	0	(1,233,300)	0
30. Dividends to policyholders and refunds to members	0												
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	(1,233,300)	0	0	0	0	0	0	0	0	0	0	(1,233,300)	0
32. Federal income taxes incurred (excluding tax on capital gains)	(258,993)											(258,993)	
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)	(974,307)	0	0	0	0	0	0	0	0	0	0	(974,307)	0
34. Policies/certificates in force end of year	1,262											1,262	
DETAILS OF WRITE-INS													
08.301.													
08.302.													
08.303.													
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	0	0	0	0	0	0	0	0	0	0	0	0	0
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above)	0	0	0	0	0	0	0	0	0	0	0	0	0
2701.													
2702.													
2703.													
2798. Summary of remaining write-ins for Line 27 from overflow page	0	0	0	0	0	0	0	0	0	0	0	0	0
2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above)	0	0	0	0	0	0	0	0	0	0	0	0	0

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - INDIVIDUAL LIFE INSURANCE (a)

	1	2	3	4	5	6	7	8	9	10	11	12
	Total	Industrial Life	Whole Life	Term Life	Indexed Life	Universal Life	Universal Life With Secondary Guarantees	Variable Life	Variable Universal Life	Credit Life ^(b) (N/A Fraternal)	Other Individual Life	YRT Mortality Risk Only
Involving Life or Disability Contingencies (Reserves) (Net of Reinsurance Ceded)												
1. Reserve December 31 of prior year	144,788,531	0	32,490,968	71,653,470	0	40,644,093	0	0	0	0	0	0
2. Tabular net premiums or considerations	12,837,478		2,861,683	8,003,001		1,972,794						
3. Present value of disability claims incurred	0											
4. Tabular interest	5,734,512		1,141,547	2,997,702		1,595,263						
5. Tabular less actual reserve released	(86,102)		(100,719)	15,548		(931)						
6. Increase in reserve on account of change in valuation basis	0											
6.1 Change in excess of VM-20 deterministic/stochastic reserve over net premium reserve	0	XXX								XXX		
7. Other increases (net)	(5,134,332)		421,412	(5,552,120)		(3,624)						
8. Totals (Lines 1 to 7)	158,140,087	0	36,814,891	77,117,601	0	44,207,595	0	0	0	0	0	0
9. Tabular cost	12,614,410		3,190,764	6,732,397		2,691,249						
10. Reserves released by death	1,840,955		975,502	124,425		741,028						
11. Reserves released by other terminations (net)	14,166,690		1,562,559	11,351,411		1,252,720						
12. Annuity, supplementary contract and disability payments involving life contingencies	130,109		8,172	121,937								
13. Net transfers to or (from) Separate Accounts	0											
14. Total Deductions (Lines 9 to 13)	28,752,164	0	5,736,997	18,330,170	0	4,684,997	0	0	0	0	0	0
15. Reserve December 31 of current year	129,387,923	0	31,077,894	58,787,431	0	39,522,598	0	0	0	0	0	0
Cash Surrender Value and Policy Loans												
16. CSV Ending balance December 31, current year	90,389,574		48,596,579			41,792,995						
17. Amount Available for Policy Loans Based upon Line 16 CSV	81,477,926		39,684,931			41,792,995						

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

(b) Individual and Group Credit Life are combined and included on page. (Indicate whether included with Individual or Group.)

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY
ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - GROUP LIFE INSURANCE (a)
(N/A Fraternal)

	1	2	3	4	5	6	7	8	9
	Total	Whole Life	Term Life	Universal Life	Variable Life	Variable Universal Life	Credit Life ^(b)	Other Group Life	YRT Mortality Risk Only
Involving Life or Disability Contingencies (Reserves) (Net of Reinsurance Ceded)									
1. Reserve December 31 of prior year	1,040,390	1,040,390	0	0	0	0	0	0	0
2. Tabular net premiums or considerations	0								
3. Present value of disability claims incurred	0								
4. Tabular interest	43,515	43,515							
5. Tabular less actual reserve released	0								
6. Increase in reserve on account of change in valuation basis	0								
7. Other increases (net)	0								
8. Totals (Lines 1 to 7)	1,083,905	1,083,905	0	0	0	0	0	0	0
9. Tabular cost	20,437	20,437							
10. Reserves released by death	175,748	175,748							
11. Reserves released by other terminations (net)	3,384	3,384							
12. Annuity, supplementary contract and disability payments involving life contingencies	0								
13. Net transfers to or (from) Separate Accounts	0								
14. Total Deductions (Lines 9 to 13)	199,569	199,569	0	0	0	0	0	0	0
15. Reserve December 31 of current year	884,336	884,336	0	0	0	0	0	0	0
Cash Surrender Value and Policy Loans									
16. CSV Ending balance December 31, current year	884,336	884,336							
17. Amount Available for Policy Loans Based upon Line 16 CSV	884,336	884,336							

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.
(b) Individual and Group Credit Life are combined and included on page. (Indicate whether included with Individual or Group.)

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - INDIVIDUAL ANNUITIES (a)

	1	Deferred				6 Life Contingent Payout (Immediate and Annuitizations)	7 Other Annuities
		2	3	4	5		
	Total	Fixed Annuities	Indexed Annuities	Variable Annuities with Guarantees	Variable Annuities without Guarantees		
Involving Life or Disability Contingencies (Reserves) (Net of Reinsurance Ceded)							
1. Reserve December 31 of prior year	22,825,503,253	7,226,730,244	15,407,535,177	0	0	191,237,832	0
2. Tabular net premiums or considerations	8,725,691,046	4,377,450,596	4,287,358,548			60,881,902	
3. Present value of disability claims incurred .....	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX
4. Tabular interest	1,443,958,058	422,541,939	1,009,870,636			11,545,483	
5. Tabular less actual reserve released	(5,608,063)		588,732			(6,196,795)	
6. Increase in reserve on account of change in valuation basis	0						
7. Other increases (net)	3,530,304,183	384,206,898	3,135,108,014			10,989,271	
8. Totals (Lines 1 to 7)	36,519,848,477	12,410,929,677	23,840,461,107	0	0	268,457,693	0
9. Tabular cost	0						
10. Reserves released by death .....	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX
11. Reserves released by other terminations (net)	7,280,334,098	1,399,973,868	5,878,912,464			1,447,766	
12. Annuity, supplementary contract and disability payments involving life contingencies	41,776,603	21,136				41,755,467	
13. Net transfers to or (from) Separate Accounts	387,451,687		387,451,687				
14. Total Deductions (Lines 9 to 13)	7,709,562,388	1,399,995,004	6,266,364,151	0	0	43,203,233	0
15. Reserve December 31 of current year	28,810,286,089	11,010,934,673	17,574,096,956	0	0	225,254,460	0
Cash Surrender Value and Policy Loans							
16. CSV Ending balance December 31, current year	27,493,453,384	10,137,566,733	17,355,886,651				
17. Amount Available for Policy Loans Based upon Line 16 CSV	27,483,312,159	10,128,730,389	17,354,581,770				

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - GROUP ANNUITIES ^(a)

(N/A Fraternal)

	1 Total	Deferred				6 Life Contingent Payout (Immediate and Annuitizations)	7 Other Annuities
		2 Fixed Annuities	3 Indexed Annuities	4 Variable Annuities with Guarantees	5 Variable Annuities without Guarantees		
Involving Life or Disability Contingencies (Reserves) (Net of Reinsurance Ceded)							
1. Reserve December 31 of prior year	1,288,541,578	345,589,700	0	0	0	942,951,878	0
2. Tabular net premiums or considerations	5,642,396	5,252,129				390,267	
3. Present value of disability claims incurred .....	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX
4. Tabular interest	52,143,488	29,435,480				22,708,008	
5. Tabular less actual reserve released	119,364					119,364	
6. Increase in reserve on account of change in valuation basis	0						
7. Other increases (net)	15,225,553	23,090,553				(7,865,000)	
8. Totals (Lines 1 to 7)	1,361,672,379	403,367,862	0	0	0	958,304,517	0
9. Tabular cost	0						
10. Reserves released by death .....	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX
11. Reserves released by other terminations (net)	74,108,003	74,108,003					
12. Annuity, supplementary contract and disability payments involving life contingencies	68,400,188	9,010				68,391,178	
13. Net transfers to or (from) Separate Accounts	0						
14. Total Deductions (Lines 9 to 13)	142,508,191	74,117,013	0	0	0	68,391,178	0
15. Reserve December 31 of current year	1,219,164,188	329,250,849	0	0	0	889,913,339	0
Cash Surrender Value and Policy Loans							
16. CSV Ending balance December 31, current year	322,905,363	322,905,363					
17. Amount Available for Policy Loans Based upon Line 16 CSV	311,366,669	311,366,669					

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

EXHIBIT OF NET INVESTMENT INCOME

		1	2
		Collected During Year	Earned During Year
1.	U.S. Government bonds	(a) 13,034,983	..... 7,793,182
1.1	Bonds exempt from U.S. tax	(a) .....	.....
1.2	Other bonds (unaffiliated)	(a) 1,652,768,735	..... 1,782,708,506
1.3	Bonds of affiliates	(a) 32,894,117	..... 16,313,958
2.1	Preferred stocks (unaffiliated)	(b) 12,561,272	..... 11,527,790
2.11	Preferred stocks of affiliates	(b) 0	..... 0
2.2	Common stocks (unaffiliated) .....	..... 12,724,134	..... 12,170,827
2.21	Common stocks of affiliates .....	..... 0	..... 0
3.	Mortgage loans	(c) 193,474,041	..... 204,743,132
4.	Real estate	(d) 0	..... 0
5	Contract loans .....	..... 4,037,027	..... 3,820,834
6	Cash, cash equivalents and short-term investments	(e) 109,689,013	..... 109,689,013
7	Derivative instruments	(f) (13,572,465)	..... (27,337,918)
8.	Other invested assets .....	..... 151,358,054	..... 131,920,319
9.	Aggregate write-ins for investment income .....	..... (67,525)	..... (67,525)
10.	Total gross investment income	2,168,901,386	2,253,282,118
11.	Investment expenses		(g) 42,580,913
12.	Investment taxes, licenses and fees, excluding federal income taxes		(g) ..... .82
13.	Interest expense		(h) 28,008,761
14.	Depreciation on real estate and other invested assets		(i) 0
15.	Aggregate write-ins for deductions from investment income .....		..... 240,681,011
16.	Total deductions (Lines 11 through 15) .....		..... 311,270,767
17.	Net investment income (Line 10 minus Line 16)		1,942,011,351
DETAILS OF WRITE-INS			
0901.	Miscellaneous .....	..... (67,525)	..... (67,525)
0902.	.....	
0903.	.....	
0998.	Summary of remaining write-ins for Line 9 from overflow page .....	..... 0	..... 0
0999.	Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)	(67,525)	(67,525)
1501.	Ceded investment income .....		..... 240,681,011
1502.	.....	
1503.	.....	
1598.	Summary of remaining write-ins for Line 15 from overflow page .....		..... 0
1599.	Totals (Lines 1501 thru 1503 plus 1598) (Line 15, above)		240,681,011

(a) Includes \$ 148,679,708 accrual of discount less \$ 108,381,453 amortization of premium and less \$ 41,035,278 paid for accrued interest on purchases.

(b) Includes \$ 0 accrual of discount less \$ 0 amortization of premium and less \$ 0 paid for accrued dividends on purchases.

(c) Includes \$ 12,149,299 accrual of discount less \$ 11,955,401 amortization of premium and less \$ paid for accrued interest on purchases.

(d) Includes \$ for company's occupancy of its own buildings; and excludes \$ interest on encumbrances.

(e) Includes \$ 85,246,878 accrual of discount less \$ 98,084 amortization of premium and less \$ 40,030 paid for accrued interest on purchases.

(f) Includes \$ accrual of discount less \$ amortization of premium.

(g) Includes \$ investment expenses and \$ investment taxes, licenses and fees, excluding federal income taxes, attributable to segregated and Separate Accounts.

(h) Includes \$ interest on surplus notes and \$ interest on capital notes.

(i) Includes \$ 0 depreciation on real estate and \$ depreciation on other invested assets.

EXHIBIT OF CAPITAL GAINS (LOSSES)

		1	2	3	4	5
		Realized Gain (Loss) On Sales or Maturity	Other Realized Adjustments	Total Realized Capital Gain (Loss) (Columns 1 + 2)	Change in Unrealized Capital Gain (Loss)	Change in Unrealized Foreign Exchange Capital Gain (Loss)
1.	U.S. Government bonds .....	..... (10,013,441)	..... 0	..... (10,013,441)	..... 0	..... 0
1.1	Bonds exempt from U.S. tax .....	.....	.....	..... 0	.....	.....
1.2	Other bonds (unaffiliated) .....	..... (459,246,227)	..... (82,924,335)	..... (542,170,562)	..... (5,498,457)	..... 17,082,733
1.3	Bonds of affiliates .....	..... (1,137,998)	..... 0	..... (1,137,998)	..... 0	..... 2,401,246
2.1	Preferred stocks (unaffiliated) .....	..... 1,886,412	..... (30,919)	..... 1,855,493	..... (30,620,163)	..... 0
2.11	Preferred stocks of affiliates .....	..... 0	..... 0	..... 0	..... 0	..... 0
2.2	Common stocks (unaffiliated) .....	..... 25,122,381	..... (424,479)	..... 24,697,902	..... 14,773,198	..... 366
2.21	Common stocks of affiliates .....	..... 0	..... 0	..... 0	..... 42,608,553	..... 0
3.	Mortgage loans .....	..... 21,544	..... (831)	..... 20,713	..... 0	..... 219,085
4.	Real estate .....	.....	..... 0	..... 0	.....	..... 0
5.	Contract loans .....	.....	.....	..... 0	.....	.....
6.	Cash, cash equivalents and short-term investments .....	..... 12,027	..... 6,927,050	..... 6,939,077	.....	.....
7.	Derivative instruments .....	..... 23,299,674	.....	..... 23,299,674	..... 217,109,142	..... (118,137)
8.	Other invested assets .....	..... (10,672,881)	..... (19,505,396)	..... (30,178,277)	..... (89,575,397)	..... 320,433
9.	Aggregate write-ins for capital gains (losses) .....	..... 0	..... (3,798,168)	..... (3,798,168)	..... 0	..... 0
10.	Total capital gains (losses)	(430,728,509)	(99,757,078)	(530,485,587)	148,796,876	19,905,726
DETAILS OF WRITE-INS						
0901.	Misc Income .....	.....	..... (3,798,168)	..... (3,798,168)	.....	.....
0902.	.....				
0903.	.....				
0998.	Summary of remaining write-ins for Line 9 from overflow page .....	..... 0	..... 0	..... 0	..... 0	..... 0
0999.	Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)	0	(3,798,168)	(3,798,168)	0	0

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY
EXHIBIT - 1 PART 1 - PREMIUMS AND ANNUITY CONSIDERATIONS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

	1	2	3	4	5	6	7	8
	Total	Individual Life	Group Life	Individual Annuities	Group Annuities	Accident & Health	Fraternal	Other Lines of Business
FIRST YEAR (other than single)								
1. Uncollected	0							
2. Deferred and accrued	0							
3. Deferred , accrued and uncollected:								
3.1 Direct	0							
3.2 Reinsurance assumed	0							
3.3 Reinsurance ceded	0							
3.4 Net (Line 1 + Line 2)	0	0	0	0	0	0	0	0
4. Advance	0							
5. Line 3.4 - Line 4	0	0	0	0	0	0	0	0
6. Collected during year:								
6.1 Direct	0							
6.2 Reinsurance assumed	0							
6.3 Reinsurance ceded	0							
6.4 Net	0	0	0	0	0	0	0	0
7. Line 5 + Line 6.4	0	0	0	0	0	0	0	0
8. Prior year (uncollected + deferred and accrued - advance)	0			0	0	0	0	0
9. First year premiums and considerations:								
9.1 Direct	0							
9.2 Reinsurance assumed	0							
9.3 Reinsurance ceded	0							
9.4 Net (Line 7 - Line 8)	0	0	0	0	0	0	0	0
SINGLE								
10. Single premiums and considerations:								
10.1 Direct	8,743,480,831			8,742,997,861	482,970			
10.2 Reinsurance assumed	0							
10.3 Reinsurance ceded	255,484,941			255,484,941				
10.4 Net	8,487,995,890	0	0	8,487,512,920	482,970	0	0	0
RENEWAL								
11. Uncollected	681,425	648,151				33,274		
12. Deferred and accrued	6,693,180	6,693,180						
13. Deferred, accrued and uncollected:								
13.1 Direct	6,585,728	6,574,702				11,026		
13.2 Reinsurance assumed	799,903	766,629				33,274		
13.3 Reinsurance ceded	11,026					11,026		
13.4 Net (Line 11 + Line 12)	7,374,605	7,341,331	0	0	0	33,274	0	0
14. Advance	94,251	87,758				6,493		
15. Line 13.4 - Line 14	7,280,354	7,253,573	0	0	0	26,781	0	0
16. Collected during year:								
16.1 Direct	34,536,110	20,846,463		3,787,270	5,166,296	4,736,081		
16.2 Reinsurance assumed	6,841,349	2,953,393		884,446		3,003,510		
16.3 Reinsurance ceded	20,146,791	10,117,151		2,576,197	2,717,362	4,736,081		
16.4 Net	21,230,668	13,682,705	0	2,095,519	2,448,934	3,003,510	0	0
17. Line 15 + Line 16.4	28,511,022	20,936,278	0	2,095,519	2,448,934	3,030,291	0	0
18. Prior year (uncollected + deferred and accrued - advance)	9,736,142	9,701,177		0	0	34,965	0	0
19. Renewal premiums and considerations:								
19.1 Direct	32,276,074	18,599,421		3,787,270	5,166,296	4,723,087		
19.2 Reinsurance assumed	6,632,601	2,752,829		884,446		2,995,326		
19.3 Reinsurance ceded	20,133,797	10,117,151		2,576,197	2,717,362	4,723,087		
19.4 Net (Line 17 - Line 18)	18,774,878	11,235,099	0	2,095,519	2,448,934	2,995,326	0	0
TOTAL								
20. Total premiums and annuity considerations:								
20.1 Direct	8,775,756,905	18,599,421	0	8,746,785,131	5,649,266	4,723,087	0	0
20.2 Reinsurance assumed	6,632,601	2,752,829	0	884,446	0	2,995,326	0	0
20.3 Reinsurance ceded	275,618,738	10,117,151	0	258,061,138	2,717,362	4,723,087	0	0
20.4 Net (Lines 9.4 + 10.4 + 19.4)	8,506,770,768	11,235,099	0	8,489,608,439	2,931,904	2,995,326	0	0

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT - 1 PART 2 - POLICYHOLDERS' DIVIDENDS, REFUNDS TO MEMBERS AND COUPONS APPLIED, REINSURANCE COMMISSIONS AND
EXPENSE ALLOWANCES AND COMMISSIONS INCURRED (Direct Business Only)

	1	2	3	4	5	6	7	8
	Total	Individual Life	Group Life	Individual Annuities	Group Annuities	Accident & Health	Fraternal	Other Lines of Business
POLICYHOLDERS' DIVIDENDS, REFUNDS TO MEMBERS AND COUPONS APPLIED (included in Part 1)								
21. To pay renewal premiums	0							
22. All other	0							
REINSURANCE COMMISSIONS AND EXPENSE ALLOWANCES INCURRED								
23. First year (other than single):								
23.1 Reinsurance ceded	0							
23.2 Reinsurance assumed	0							
23.3 Net ceded less assumed	0	0	0	0	0	0	0	0
24. Single:								
24.1 Reinsurance ceded	12,900,764			12,900,764				
24.2 Reinsurance assumed	0							
24.3 Net ceded less assumed	12,900,764	0	0	12,900,764	0	0	0	0
25. Renewal:								
25.1 Reinsurance ceded	57,332,878	1,996,990		53,742,017	1,439,680	154,191		
25.2 Reinsurance assumed	498,774	(48,687)		3,824		543,637		
25.3 Net ceded less assumed	56,834,104	2,045,677	0	53,738,193	1,439,680	(389,446)	0	0
26. Totals:								
26.1 Reinsurance ceded (Page 6, Line 6)	70,233,642	1,996,990	0	66,642,781	1,439,680	154,191	0	0
26.2 Reinsurance assumed (Page 6, Line 22)	498,774	(48,687)	0	3,824	0	543,637	0	0
26.3 Net ceded less assumed	69,734,868	2,045,677	0	66,638,957	1,439,680	(389,446)	0	0
COMMISSIONS INCURRED (direct business only)								
27. First year (other than single)	0							
28. Single	392,053,093			392,047,793	5,300			
29. Renewal	1,207,249	383,449		320,587	349,022	154,191		
30. Deposit-type contract funds	426,186			426,186				
31. Totals (to agree with Page 6, Line 21)	393,686,528	383,449	0	392,794,566	354,322	154,191	0	0

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT 2 - GENERAL EXPENSES

		Insurance				5	6	7
		1	Accident and Health		4			
			2	3				
		Life	Cost Containment	All Other		Investment	Fraternal	Total
1.	Rent	(217,796)						(217,796)
2.	Salaries and wages	84,218,857						84,218,857
3.11	Contributions for benefit plans for employees	12,663,322						12,663,322
3.12	Contributions for benefit plans for agents							0
3.21	Payments to employees under non-funded benefit plans							0
3.22	Payments to agents under non-funded benefit plans							0
3.31	Other employee welfare	2,974,143						2,974,143
3.32	Other agent welfare	828,304						828,304
4.1	Legal fees and expenses	12,071,968						12,071,968
4.2	Medical examination fees	267						267
4.3	Inspection report fees							0
4.4	Fees of public accountants and consulting actuaries	7,745,601						7,745,601
4.5	Expense of investigation and settlement of policy claims	55,086						55,086
5.1	Traveling expenses	2,741,277						2,741,277
5.2	Advertising	666,765						666,765
5.3	Postage, express, telegraph and telephone	3,119,170						3,119,170
5.4	Printing and stationery	1,152,385						1,152,385
5.5	Cost or depreciation of furniture and equipment ...	739,853						739,853
5.6	Rental of equipment	270,238						270,238
5.7	Cost or depreciation of EDP equipment and software	989,984						989,984
6.1	Books and periodicals	116,440						116,440
6.2	Bureau and association fees	4,019,023						4,019,023
6.3	Insurance, except on real estate	586,495						586,495
6.4	Miscellaneous losses	94,140						94,140
6.5	Collection and bank service charges	789,727						789,727
6.6	Sundry general expenses	7,351,297						7,351,297
6.7	Group service and administration fees	3,944,499						3,944,499
6.8	Reimbursements by uninsured plans							0
7.1	Agency expense allowance	1,379,551						1,379,551
7.2	Agents' balances charged off (less \$ recovered)	62,985						62,985
7.3	Agency conferences other than local meetings	838,590						838,590
8.1	Official publication (Fraternal Benefit Societies Only)	XXX	XXX	XXX	XXX	XXX		0
8.2	Expense of supreme lodge meetings (Fraternal Benefit Societies Only)	XXX	XXX	XXX	XXX	XXX		0
9.1	Real estate expenses							0
9.2	Investment expenses not included elsewhere	4,729,409				42,580,913		47,310,322
9.3	Aggregate write-ins for expenses	15,869,219	0	0	0	0	0	15,869,219
10.	General expenses incurred	169,800,799	0	0	0	42,580,913	(b) 0	(a) 212,381,712
11.	General expenses unpaid Dec. 31, prior year	48,404,491						48,404,491
12.	General expenses unpaid Dec. 31, current year ...	56,305,815						56,305,815
13.	Amounts receivable relating to uninsured plans, prior year							0
14.	Amounts receivable relating to uninsured plans, current year							0
15.	General expenses paid during year (Lines 10+11-12-13+14)	161,899,475	0	0	0	42,580,913	0	204,480,388
DETAILS OF WRITE-INS								
09.301.	PC & EDP Expenses	15,869,219						15,869,219
09.302.							
09.303.							
09.398.	Summary of remaining write-ins for Line 9.3 from overflow page.....	0	0	0	0	0	0	0
09.399.	Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above)	15,869,219	0	0	0	0	0	15,869,219

(a) Includes management fees of \$ to affiliates and \$ to non-affiliates.
(b) Show the distribution of this amount in the following categories (Fraternal Benefit Societies Only):
1. Charitable\$; 2. Institutional . \$; 3. Recreational and Health \$; 4. Educational\$
5. Religious\$; 6. Membership \$; 7. Other\$; 8. Total\$0

EXHIBIT 3 - TAXES, LICENSES AND FEES (EXCLUDING FEDERAL INCOME TAXES)

		Insurance			4	5	6
		1	2	3			
		Life	Accident and Health	All Other Lines of Business	Investment	Fraternal	Total
1.	Real estate taxes .....				.82		.82
2.	State insurance department licenses and fees	2,314,381					2,314,381
3.	State taxes on premiums	1,269,056					1,269,056
4.	Other state taxes, including \$						
	for employee benefits	3,972,868					3,972,868
5.	U.S. Social Security taxes	5,066,895					5,066,895
6.	All other taxes	89,135					89,135
7.	Taxes, licenses and fees incurred	12,712,335	0	0	.82	0	12,712,417
8.	Taxes, licenses and fees unpaid Dec. 31, prior year	2,060,039					2,060,039
9.	Taxes, licenses and fees unpaid Dec. 31, current year.....	(667,577)					(667,577)
10.	Taxes, licenses and fees paid during year (Lines 7 + 8 - 9)	15,439,951	0	0	82	0	15,440,033

EXHIBIT 4 - DIVIDENDS OR REFUNDS

	Insurance	
	1 Life	2 Accident and Health
1. Applied to pay renewal premiums		
2. Applied to shorten the endowment or premium-paying period		
3. Applied to provide paid-up additions		
4. Applied to provide paid-up annuities		
5. Total Lines 1 through 4	0	0
6. Paid in cash		
7. Left on deposit	8,940	
8. Aggregate write-ins for dividend or refund options	0	0
9. Total Lines 5 through 8	8,940	0
10. Amount due and unpaid		
11. Provision for dividends or refunds payable in the following calendar year		
12. Terminal dividends		
13. Provision for deferred dividend contracts		
14. Amount provisionally held for deferred dividend contracts not included in Line 13		
15. Total Lines 10 through 14	0	0
16. Total from prior year	0	0
17. Total dividends or refunds (Lines 9 + 15 - 16)	8,940	0
DETAILS OF WRITE-INS		
0801.		
0802.		
0803.		
0898. Summary of remaining write-ins for Line 8 from overflow page	0	0
0899. Totals (Lines 0801 thru 0803 plus 0898) (Line 8 above)	0	0

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

1	2	3	4	5	6
Valuation Standard	Total ^(a)	Industrial	Ordinary	Credit (Group and Individual)	Group
0100001. AM(5) 3.00% 1948-1952	7,392		7,392		
0100002. 41 CET - NL 3.00% 1952-1962	7,379		7,379		
0100003. 41 CSO - NL 2.50% 1952-1962	14,592		14,592		
0100004. 41 CSO - CRVM 2.50% 1952-1962	963		963		
0100005. 41 CSO - CRVM 2.75% 1952-1962	27,062		27,062		
0100006. 41 CSO - NL 3.00% 1952-1962	2,627,451		2,627,451		
0100007. 41 CSO - CRVM 3.00% 1952-1962	249,439		249,439		
0100008. 58 CSO - NL 2.00% 1963-1974	0				
0100009. 58 CSO - NL 2.50% 1961-1984	271,827		271,827		
0100010. 58 CSO - NL 3.00% 1961-1988	3,909,695		3,909,695		
0100011. 58 CSO - CRVM 3.00% 1961-1988	20,970,933		20,970,933		
0100012. 58 CET - NL 2.50% 1963-1983	88,720		88,720		
0100013. 58 CET - NL 3.00% 1962-2000	517,447		517,447		
0100014. 58 CSO - CRVM 3.50% 1963-1981	6,746,346		6,746,346		
0100015. 58 CSO - NL 3.50% 1963-1988	637,198		637,198		
0100016. 58 CET - NL 3.50% 1963-1988	1,635,833		1,635,833		
0100017. 58 CSO - CRVM to NL 3.50% to 3.00% 1969-1981	63,202		63,202		
0100018. 58 CSO - CRVM to NL 3.50% 1969-1988	1,195,191		1,195,191		
0100019. 58 CSO - NL 4.00% 1974-1988	42,019		42,019		
0100020. 58 CSO - NL 3.25% 1978-1988	47,171				47,167
0100021. 58 CSO - CRVM 4.00% 1975-1988	3,761,834		3,761,834		
0100022. 58 CET - NL 4.00% 1980-1988	30,566		30,566		
0100023. 58 CET - NL 4.50% 1980-1982	60,075		60,075		
0100024. 58 CSO - NL 4.50% 1980-1988	757,084		757,084		
0100025. 58 CSO - CRVM 4.50% 1980-1996	18,450,228		18,450,228		
0100026. 58 CSO - CRVM 4.50% to 3.50% 1980-1982	2,065,976		2,065,976		
0100027. 58 CSO - CRVM 5.50% 1983-1985	6,762		6,762		
0100028. 80 CSO - CRVM 5.00% 1987-1994	3,063,404		3,063,404		
0100029. 80 CSO - CRVM 5.25% 1988-1992	11,114,398		11,114,398		
0100030. 80 CSO - CRVM 5.50% 1988-1992	5,649,988		5,649,988		
0100031. 80 CSO - CRVM 6.00% 1983-1986	1,530,703		1,530,703		
0100032. 80 CSO - NL 6.00% 1983-1994	719,475		719,475		
0100033. 80 CSO - NL 3.50% 1983-1995	1,147		1,147		
0100034. 80 CSO - CRVM 3.50% 1983-1995	193,259		193,259		
0100035. 80 CSO - NL 4.50% 1989-90, 1995-98	177,511		177,511		
0100036. 80 CSO - NL 5.00% 1993-1994	598,020		598,020		
0100037. 80 CSO - NL 5.50% 1988-1989	207,622		207,622		
0100038. 80 CET - NL 5.00% 1993-1994	20,207		20,207		
0100039. 80 CET - NL 3.50% 1983-1985	1,833		1,833		
0100040. 80 CET - NL 5.50% 1988-1992	33,025		33,025		
0100041. 80 CET - NL 6.00% 1983-1986	4,554		4,554		
0100042. 80 CET - NL 4.50% 1987-2006	93,582		93,582		
0100043. EXTENDED DEATH BENEFIT - GROUP	1,986				1,986
0100044. 80 CSO - NL 4.00% 1994-2004	27,981		27,981		
0100045. 80 CSO - CRVM 4.00% 1983-2008	90,243,155		90,243,155		
0100046. 80 CSO - CRVM 4.50% 1989-2005	106,092,985		106,092,985		
0100047. 80 CSO - CRVM 5.75% 1996-2003	2,354		2,354		
0100048. 01 CSO - CRVM 3.5%, 4% 2009-2019	4,136,187		4,136,187		
0100049. 17 CSO - CRVM 3.50% 2020	158,944		158,944		
0100050. 17 CSO - CRVM 3.00% 2021-2023	169,434		169,434		
0100051. Annuity 2000 - NL 5.00% 2004	3,543,618		3,543,618		
0100052. Annuity 2000 - NL 5.50% 2003	6,200,019		6,200,019		
0100053. Annuity 2000 - NL 6.00% 2002	18,802,685		18,802,685		
0100054. 80 CSO - CRVM 4.50% 1996-2000	5,982,209		2,797,531		3,184,678
0100055. 80 CSO - NL 4.50% 1996-2000	10,530,800		5,433,606		5,097,194
0100056. 01 CSO - CRVM 4.00% 2006-2012	1,969,795		1,969,795		
0100057. 01 CSO - NL 4.00% 2006-2012	5,239		5,239		
0100058. 01 CSO - CRVM 4.50% 2006-2010	1,947,066		1,947,066		
0100059. 01 CSO - NL 4.50% 2006-2009	4,292		4,292		
0199997. Totals (Gross)	337,419,862	0	329,088,837	0	8,331,025
0199998. Reinsurance ceded	212,301,533		204,847,848		7,453,685
0199999. Life Insurance: Totals (Net)	125,118,329	0	124,240,989	0	877,340
0200001. 71 IAM 6.00% 1975-1982 (1mm)	218,369	XXX	218,369	XXX	
0200002. 71 IAM 11.25% 1983-1984 (1mm)	1,267,692	XXX	130,675	XXX	1,137,017
0200003. 71 IAM 11.00% 1985 (1mm)	11,979,711	XXX	86,220	XXX	11,893,491
0200004. 83 IAM 9.25% 1986 (1mm)	171,829	XXX	171,829	XXX	
0200005. 83 IAM 8.00% 1987 (1mm)	297,505	XXX	297,505	XXX	
0200006. 83 IAM 8.75% 1988-1989 (1mm)	452,420	XXX	452,420	XXX	
0200007. 83 IAM 8.25% 1990-1991 (1mm)	1,013,070	XXX	1,013,070	XXX	
0200008. 83 IAM 7.75% 1992 (1mm)	765,751	XXX	765,751	XXX	
0200009. 83 IAM 7.00% 1993 (1mm)	950,487	XXX	950,487	XXX	
0200010. 83 IAM 6.50% 1994 (1mm)	1,034,415	XXX	1,034,415	XXX	
0200011. 83 IAM 7.25% 1995 (1mm)	1,067,216	XXX	1,067,216	XXX	
0200012. 83 IAM 6.75% 1996-1997 (1mm)	2,872,326	XXX	2,872,326	XXX	
0200013. 83 IAM 6.25% 1998-1999 (1mm)	1,846,228	XXX	1,846,228	XXX	
0200014. Annuity 2000 6.25% 1999 (1mm)	1,782,301	XXX	1,782,301	XXX	
0200015. Annuity 2000 7.00% 2000 (1mm)	1,823,739	XXX	1,823,739	XXX	
0200016. Annuity 2000 6.75% 2001 (1mm)	2,137,302	XXX	2,137,302	XXX	
0200017. Annuity 2000 6.50% 2002 (1mm)	3,399,613	XXX	3,399,613	XXX	
0200018. Annuity 2000 6.00% 2003 (1mm)	2,218,480	XXX	2,218,480	XXX	
0200019. Annuity 2000 5.50% 2004 (1mm)	1,939,796	XXX	1,939,796	XXX	
0200020. Annuity 2000 5.25% 2005 (1mm)	3,490,304	XXX	3,490,304	XXX	
0200021. Annuity 2000 5.25% 2006 (1mm)	4,527,136	XXX	4,527,136	XXX	
0200022. Annuity 2000 5.50% 2007-2008 (1mm)	6,833,727	XXX	6,833,727	XXX	
0200023. Annuity 2000 5.25% 2009 (1mm)	3,053,407	XXX	3,053,407	XXX	
0200024. Annuity 2000 5.25% 2010 (1mm)	3,791,918	XXX	3,791,918	XXX	
0200025. Annuity 2000 5.00% 2011 (1mm)	3,451,454	XXX	3,451,454	XXX	
0200026. Annuity 2000 4.25% 2012 (1mm)	4,554,601	XXX	4,554,601	XXX	
0200027. Annuity 2000 4.00% 2013 (1mm)	3,861,733	XXX	3,861,733	XXX	
0200028. Annuity 2000 4.50% 2014 (1mm)	5,665,106	XXX	5,665,106	XXX	
0200029. Annuity 2000 4.00% 2015 (1mm)	6,414,105	XXX	6,414,105	XXX	

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

1	2	3	4	5	6
Valuation Standard	Total ^(a)	Industrial	Ordinary	Credit (Group and Individual)	Group
0200030. 2012 IAR 4.00% 2016 (Imm)	10,240,138	XXX	10,240,138	XXX	
0200031. 2012 IAR 3.75% 2017 (Imm)	11,467,296	XXX	11,467,296	XXX	
0200032. 2012 IAR 3.75% 2018 (Imm)	9,735,877	XXX	9,735,877	XXX	
0200033. 2012 IAR 4.00% 2019 (Imm)	8,845,863	XXX	8,845,863	XXX	
0200034. 2012 IAR 3.25% 2020 (Imm)	11,037,212	XXX	11,037,212	XXX	
0200035. 2012 IAR 3.00% 2021 (Imm)	11,927,875	XXX	11,927,875	XXX	
0200036. 2012 IAR 3.50% 2022 (Imm)	14,628,208	XXX	14,628,208	XXX	
0200037. 2012 IAR 4.75% 2023 (Imm)	21,790,411	XXX	21,790,411	XXX	
0200038. 2012 IAR VM22 Non Jumbo 2.75 – 3.24 2018 (Imm)	4,936,586	XXX	4,936,586	XXX	
0200039. 2012 IAR VM22 Non Jumbo 3.25 – 3.74 2018 (Imm)	5,287,902	XXX	5,287,902	XXX	
0200040. 2012 IAR VM22 Non Jumbo 3.75 – 4.24 2018 (Imm)	1,293,478	XXX	1,293,478	XXX	
0200041. 2012 IAR VM22 Non Jumbo 2.25 – 2.74 2019 (Imm)	680,981	XXX	680,981	XXX	
0200042. 2012 IAR VM22 Non Jumbo 2.75 – 3.24 2019 (Imm)	2,787,773	XXX	2,787,773	XXX	
0200043. 2012 IAR VM22 Non Jumbo 3.25 – 3.74 2019 (Imm)	896,387	XXX	896,387	XXX	
0200044. 2012 IAR VM22 Non Jumbo 3.75 – 4.24 2019 (Imm)	6,578,950	XXX	6,578,950	XXX	
0200045. 2012 IAR VM22 Non Jumbo 4.25 – 4.74 2019 (Imm)	390,914	XXX	390,914	XXX	
0200046. 2012 IAR VM22 Non Jumbo 1.00 – 1.74 2020 (Imm)	5,174,254	XXX	5,174,254	XXX	
0200047. 2012 IAR VM22 Non Jumbo 2.25 – 2.74 2020 (Imm)	12,091,085	XXX	12,091,085	XXX	
0200048. 2012 IAR VM22 Non Jumbo 2.75 – 3.24 2020 (Imm)	137,281	XXX	137,281	XXX	
0200049. 2012 IAR VM22 Non Jumbo 3.25 – 3.74 2020 (Imm)	0	XXX		XXX	
0200050. 2012 IAR VM22 Non Jumbo 1.00 – 1.74 2021 (Imm)	11,814,329	XXX	11,814,329	XXX	
0200051. 2012 IAR VM22 Non Jumbo 2.25 – 2.74 2021 (Imm)	9,574,659	XXX	9,574,659	XXX	
0200052. 2012 IAR VM22 Non Jumbo 2.75 – 3.24 2021 (Imm)	461,367	XXX	461,367	XXX	
0200053. 2012 IAR VM22 Non Jumbo 1.00 – 1.74 2022 (Imm)	3,316,302	XXX	3,316,302	XXX	
0200054. 2012 IAR VM22 Non Jumbo 2.25 – 2.74 2022 (Imm)	11,886,399	XXX	11,886,399	XXX	
0200055. 2012 IAR VM22 Non Jumbo 2.75 – 3.24 2022 (Imm)	623,314	XXX	623,314	XXX	
0200056. 2012 IAR VM22 Non Jumbo 3.25 – 3.74 2022 (Imm)	3,602,451	XXX	3,602,451	XXX	
0200057. 2012 IAR VM22 Non Jumbo 3.75 – 4.24 2022 (Imm)	17,176,063	XXX	17,176,063	XXX	
0200058. 2012 IAR VM22 Non Jumbo 4.25 – 4.74 2022 (Imm)	12,730,824	XXX	12,730,824	XXX	
0200059. 2012 IAR VM22 Non Jumbo 4.25 – 4.74 2023 (Imm)	18,161,579	XXX	18,161,579	XXX	
0200060. 2012 IAR VM22 Non Jumbo 4.75 – 5.24 2023 (Imm)	20,352,548	XXX	20,352,548	XXX	
0200061. 94 GAR 3.75% 2017 (Imm)	3,764,388	XXX		XXX	3,764,388
0200062. 94 GAR VM22 Non Jumbo 0.75 – 1.24 2018–2021 (Imm)	1,347,233	XXX		XXX	1,347,233
0200063. 94 GAR VM22 Non Jumbo 1.25 – 1.74 2018–2021 (Imm)	19,363,719	XXX		XXX	19,363,719
0200064. 94 GAR VM22 Non Jumbo 1.75 – 2.24 2018–2021 (Imm)	125,255,869	XXX		XXX	125,255,869
0200065. 94 GAR VM22 Non Jumbo 2.25 – 2.74 2018–2021 (Imm)	261,840,499	XXX		XXX	261,840,499
0200066. 94 GAR VM22 Non Jumbo 2.75 – 3.24 2018–2021 (Imm)	294,237,612	XXX		XXX	294,237,612
0200067. 94 GAR VM22 Non Jumbo 3.25 – 3.74 2018–2021 (Imm)	38,081,708	XXX		XXX	38,081,708
0200068. 94 GAR VM22 Non Jumbo 3.75 – 4.24 2018–2021 (Imm)	135,851,929	XXX		XXX	135,851,929
0200069. 94 GAR VM22 Non Jumbo 4.25 – 4.74 2018–2021 (Imm)	5,004,875	XXX		XXX	5,004,875
0200070. 71 IAM 3.75 – 4.00% 1971–1978 (Def)	25,728,745	XXX	25,728,745	XXX	
0200071. 71 IAM 4.25 – 4.50% 1979–1982 (Def)	171,982,156	XXX	169,511,869	XXX	2,470,287
0200072. 71 IAM 8.50 – 8.75% 1983 (Def)	48,277,496	XXX	47,547,263	XXX	730,233
0200073. 71 IAM 8.25 – 8.50% 1984–1985 (Def)	154,304,913	XXX	152,655,570	XXX	1,649,343
0200074. 83 IAM 7.00 – 7.25% 1986 (Def)	123,219,307	XXX	122,075,804	XXX	1,143,503
0200075. 83 IAM 6.25 – 6.50% 1987 (Def)	132,618,282	XXX	116,291,460	XXX	16,326,822
0200076. 83 IAM 6.75 – 7.00% 1988–1989 (Def)	278,725,109	XXX	273,840,076	XXX	4,885,033
0200077. 83 IAM 6.25 – 6.50% 1990 (Def)	176,805,046	XXX	165,543,327	XXX	11,261,719
0200078. 83 IAM 6.50 – 6.75% 1991 (Def)	159,308,511	XXX	144,151,557	XXX	15,156,954
0200079. 83 IAM 6.00 – 6.25% 1992 (Def)	118,870,335	XXX	94,267,759	XXX	24,602,576
0200080. 83 IAM 5.50 – 5.75% 1993 (Def)	123,282,548	XXX	69,580,681	XXX	53,701,867
0200081. 83 IAM 5.25 – 5.50% 1994 (Def)	109,055,702	XXX	52,257,068	XXX	56,798,634
0200082. 83 IAM 6.00 – 6.25% 1995 (Def)	121,096,247	XXX	48,803,116	XXX	72,293,131
0200083. 83 IAM 5.25 – 5.50% 1996–1997 (Def)	244,527,248	XXX	88,640,201	XXX	155,887,047
0200084. 83 IAM 5.00 – 5.25% 1998 (Def)	102,173,610	XXX	40,057,549	XXX	62,116,061
0200085. Deferred 3.25 – 3.50% 1989–1998 (Def)	2,660,613	XXX	2,660,613	XXX	
0200086. Deferred 4.25 – 4.50% 1989–1998 (Def)	619,781	XXX	619,781	XXX	
0200087. Deferred 5.25 – 5.50% 1989–1998 (Def)	110,585	XXX	110,585	XXX	
0200088. Annuity 2000, 1994 GAR 5.50 – 5.25% 1999 (Def)	88,256,930	XXX	34,490,195	XXX	53,766,735

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

1	2	3	4	5	6
Valuation Standard	Total ^(a)	Industrial	Ordinary	Credit (Group and Individual)	Group
0200089. Annuity 2000, 1994 GAR 5.50 – 5.75% 2000 (Def)	82,851,359	XXX	32,733,335	XXX	50,118,024
0200090. Annuity 2000, 1994 GAR 5.25 – 5.50% 2001-2002 (Def)	267,682,574	XXX	124,288,970	XXX	143,393,604
0200091. Annuity 2000, 1994 GAR 4.75 – 5.00% 2003 (Def)	90,610,684	XXX	49,817,144	XXX	40,793,540
0200092. Annuity 2000, 1994 GAR 4.50 – 4.75% 2004 (Def)	58,092,628	XXX	45,671,755	XXX	12,420,873
0200093. Annuity 2000, 1994 GAR 4.25 – 4.50% 2005-2006 (Def)	143,011,177	XXX	128,549,417	XXX	14,461,760
0200094. Annuity 2000, 1994 GAR 4.50 – 4.75% 2007-2008 (Def)	391,171,003	XXX	385,347,301	XXX	5,823,702
0200095. Annuity 2000, 1994 GAR 5.00% 2009 (Def)	148,211,311	XXX	146,550,618	XXX	1,660,693
0200096. Annuity 2000, 1994 GAR 4.50% 2010 (Def)	255,464,516	XXX	255,464,516	XXX	
0200097. Annuity 2000, 1994 GAR 4.25% 2011 (Def)	552,854,986	XXX	552,483,107	XXX	371,879
0200098. Annuity 2000, 1994 GAR 3.75% 2012-2013 (Def)					
	1,930,286,131	XXX	1,929,831,730	XXX	454,401
0200099. Annuity 2000, 1994 GAR 4.00% 2014 (Def)	1,078,997,317	XXX	1,078,996,906	XXX	411
0200100. Annuity 2000, 1994 GAR 3.75% 2015 (Def)	1,501,766,817	XXX	1,501,443,858	XXX	322,959
0200101. 2012 IAR 3.50 – 3.75% 2016 (Def)	1,878,391,581	XXX	1,878,391,581	XXX	
0200102. 2012 IAR 3.25 – 3.50% 2017-2018 (Def)	6,402,879,860	XXX	6,402,879,860	XXX	
0200103. 2012 IAR 3.50 – 3.75% 2019 (Def)	3,842,252,993	XXX	3,842,252,993	XXX	
0200104. 2012 IAR 3.50 – 3.75% 2020 (Def)	2,862,523,571	XXX	2,862,523,571	XXX	
0200105. 2012 IAR 2.75 – 3.00% 2021 (Def)	4,931,430,206	XXX	4,931,430,206	XXX	
0200106. 2012 IAR 3.00 – 3.25% 2022 (Def)	7,067,231,295	XXX	7,067,231,295	XXX	
0200107. 2012 IAR 4.00 – 4.25% 2023 (Def)	8,097,725,703	XXX	8,097,725,703	XXX	
0299997. Totals (Gross)	44,982,316,755	XXX	43,281,926,624	XXX	1,700,390,131
0299998. Reinsurance ceded	14,953,732,669	XXX	14,472,506,727	XXX	481,225,942
0299999. Annuities: Totals (Net)	30,028,584,086	XXX	28,809,419,897	XXX	1,219,164,189
0300001. 71 IAM 6.00% 1971-1973	204		204		
0300002. 71 IAM 11.25% 1983-1984	0				
0300003. 71 IAM 11.00% 1985	0				
0300004. 71 IAM 7.50%	0				
0300005. 83 IAM 9.25% 1986	6,853		6,853		
0300006. 83 IAM 8.00% 1987	0				
0300007. 83 IAM 3.75% 2017	154,022		154,022		
0300008. 83 IAM 4.00% 2013-2019	114,654		114,654		
0300009. 83 IAM 5.25% 2005	0				
0300010. 83 IAM 5.50% 1986-2008	0				
0300011. 83 IAM 6.00% 1989-2009	23,663		23,663		
0300012. 83 IAM 6.25% 1989-2008	33,744		33,744		
0300013. 83 IAM 6.50% 1989-2008	11,886		11,886		
0300014. 83 IAM 6.75% 1989-2008	14,027		14,027		
0300015. 83 IAM 8.75% 1988-1989	18,312		18,312		
0300016. 83 IAM 7.00% 1992-1993	4,012		4,012		
0300017. 83 IAM 7.25% 1995	31,268		31,268		
0300018. 83 IAM 7.75% 1992	17,857		17,857		
0300019. 83 IAM 8.00% 1987	0				
0300020. 83 IAM 8.25% 1990-1991	0				
0300021. 83 IAM 8.50% 1986-2008	0				
0300022. 83 IAM 8.75% 1988-1989	10,149		10,149		
0300023. Annuity 2000 7.00% 2000	8,323		8,323		
0300024. Annuity 2000 5.25% 2005, 2010	49,766		49,766		
0300025. Annuity 2000 5.25% 2006	123,595		123,595		
0300026. Annuity 2000 5.50% 2007	0				
0300027. Annuity 2000 4.25% 2012	54,929		54,929		
0300028. Annuity 2000 4.50% 2015	0				
0300029. Annuity 2000 3.75% 2018	188,931		188,931		
0300030. Annuity 2000 3.00% 2021	0				
0399997. Totals (Gross)	866,195	0	866,195	0	0
0399998. Reinsurance ceded	0				
0399999. SCWLC: Totals (Net)	866,195	0	866,195	0	0
0400001. 59 ADB WITH 58 CSO 3.00%	42,353		42,353		
0400002. RESERVE FOR ADDITIONAL ADB	19		19		
0400003. 59 ADB WITH 80 CSO 4.00%	31,853		31,853		
0499997. Totals (Gross)	74,225	0	74,225	0	0
0499998. Reinsurance ceded	36,384		36,384		
0499999. Accidental Death Benefits: Totals (Net)	37,841	0	37,841	0	0
0500001. 52 INTERCO DISA, PER 2 BEN 4 & 5 W/ 58 CSO 3.00%	8,583		8,583		
0500002. 52 INTERCO DISA, PER 2 BEN 4 & 5 W/ 80 CSO 4.00%	22,755		22,755		
0500003. UNEARNED PREMIUM PAYOR	2,100		2,100		
0500004. 85 CIDA 4.50%	29,308		29,308		
0599997. Totals (Gross)	62,746	0	62,746	0	0
0599998. Reinsurance ceded	42,470		42,470		
0599999. Disability-Active Lives: Totals (Net)	20,276	0	20,276	0	0
0600001. 52 INTERCO DISA, PER 2 BEN 4 & 5 3.00%	3,395,136		3,395,136		
0600002. 1964 CDT 3.00%	2,617		2,617		
0600003. 85 CDT 4.50%	0				
0600004. 70 GROUP DIS 3.50%	0				
0600005. INCURRED BUT NOT REPORTED	60,000		60,000		
0699997. Totals (Gross)	3,457,753	0	3,457,753	0	0
0699998. Reinsurance ceded	2,154,908		2,154,908		
0699999. Disability-Disabled Lives: Totals (Net)	1,302,845	0	1,302,845	0	0
0700001. EXCESS OF NET PREMIUMS OVER GROSS	1,735,663		1,735,663		
0700002. NON DEDUCTION OF DEF. FRAC. PREMIUMS	714,862		711,516		3,346
0700003. GUARANTEED INSURABILITY RIDERS	52,104		52,104		
0700004. SUBSTANDARD POLICIES	49,823		49,823		
0700005. UNEARNED PREMIUMS – GROUP	3,535				3,535
0700006. IMMEDIATE PAYMENT OF CLAIMS	2,957,034		2,956,919		115

EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

1	2	3	4	5	6
Valuation Standard	Total ^(a)	Industrial	Ordinary	Credit (Group and Individual)	Group
0799997. Totals (Gross)	5,513,021	0	5,506,025	0	6,996
0799998. Reinsurance ceded	1,720,057		1,720,057		
0799999. Miscellaneous Reserves: Totals (Net)	3,792,964	0	3,785,968	0	6,996
9999999. Totals (Net) - Page 3, Line 1	30,159,722,536	0	28,939,674,011	0	1,220,048,525

(a) Included in the above table are amounts of deposit-type contracts that originally contained a mortality risk. Amounts of deposit-type contracts in Column 2 that no longer contain a mortality risk are Life Insurance \$; Annuities \$ 5,776,012 ; Supplementary Contracts with Life Contingencies \$; Accidental Death Benefits \$; Disability - Active Lives \$; Disability - Disabled Lives \$; Miscellaneous Reserves \$

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT 5 - INTERROGATORIES

- 1.1

Has the reporting entity ever issued both participating and non-participating contracts?.....

Yes [] No [X]
- 1.2

If not, state which kind is issued.
Non-Participating
- 2.1

Does the reporting entity at present issue both participating and non-participating contracts?.....

Yes [] No [X]
- 2.2

If not, state which kind is issued.
Non-Participating
3.

Does the reporting entity at present issue or have in force contracts that contain non-guaranteed elements?.....

Yes [X] No []
4.

Has the reporting entity any assessment or stipulated premium contracts in force?
If so, state:
4.1 Amount of insurance?\$
4.2 Amount of reserve?\$
4.3 Basis of reserve:
4.4 Basis of regular assessments:
4.5 Basis of special assessments:
4.6 Assessments collected during the year\$
5.

If the contract loan interest rate guaranteed in any one or more of its currently issued contracts is less than 5%, not in advance, state the contract loan rate guarantees on any such contracts.
.....
6.

Does the reporting entity hold reserves for any annuity contracts that are less than the reserves that would be held on a standard basis?

Yes [] No [X]
- 6.1

If so, state the amount of reserve on such contracts on the basis actually held:.....

\$
- 6.2

That would have been held (on an exact or approximate basis) using the actual ages of the annuitants; the interest rate(s) used in 6.1; and the same mortality basis used by the reporting entity for the valuation of comparable annuity benefits issued to standard lives. If the reporting entity has no comparable annuity benefits for standard lives to be valued, the mortality basis shall be the table most recently approved by the state of domicile for valuing individual annuity benefits:

\$
- Attach statement of methods employed in their valuation.
7.

Does the reporting entity have any Synthetic GIC contracts or agreements in effect as of December 31 of the current year?

Yes [] No [X]
- 7.1

If yes, state the total dollar amount of assets covered by these contracts or agreements

\$
- 7.2

Specify the basis (fair value, amortized cost, etc.) for determining the amount:
- 7.3

State the amount of reserves established for this business:

\$
- 7.4

Identify where the reserves are reported in the blank:
8.

Does the reporting entity have any Contingent Deferred Annuity contracts or agreements in effect as of December 31 of the current year?

Yes [] No [X]
- 8.1

If yes, state the total dollar amount of account value covered by these contracts or agreements:

\$
- 8.2

State the amount of reserves established for this business:

\$
- 8.3

Identify where the reserves are reported in the blank:
9.

Does the reporting entity have any Guaranteed Lifetime Income Benefit contracts, agreements or riders in effect as of December 31 of the current year?

Yes [X] No []
- 9.1

If yes, state the total dollar amount of any account value associated with these contracts, agreements or riders:

\$4,369,267,165
- 9.2

State the amount of reserves established for this business:

\$4,813,006,495
- 9.3

Identify where the reserves are reported in the blank:
The reserves for the Guaranteed Lifetime Income Benefit are included in the deferred annuity reserves shown in the Annuities section of Exhibit 5.

EXHIBIT 5A - CHANGES IN BASES OF VALUATION DURING THE YEAR

1 Description of Valuation Class	Valuation Basis		4 Increase in Actuarial Reserve Due to Change
	2 Changed From	3 Changed To	
.....			
.....			
.....			
.....			
.....			
9999999 - Total (Column 4, only)			

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT 6 - AGGREGATE RESERVES FOR ACCIDENT AND HEALTH CONTRACTS ^(a)

	1 Total	Comprehensive		4 Medicare Supplement	5 Vision Only	6 Dental Only	7 Federal Employees Health Benefits Plan	8 Title XVIII Medicare	9 Title XIX Medicaid	10 Credit A&H	11 Disability Income	12 Long-Term Care	13 Other Health
		2 Individual	3 Group										
ACTIVE LIFE RESERVE													
1. Unearned premium reserves	1,610,020			85,595							596	1,523,159	670
2. Additional contract reserves (b)	83,800,757			1,055,459							1,549	82,726,630	17,119
3. Additional actuarial reserves-Asset/Liability analysis	309,281											309,281	
4. Reserve for future contingent benefits	0												
5. Reserve for rate credits	0												
6. Aggregate write-ins for reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
7. Totals (Gross)	85,720,058	0	0	1,141,054	0	0	0	0	0	0	2,145	84,559,070	17,789
8. Reinsurance ceded	46,781,029			1,141,054							2,145	45,620,041	17,789
9. Totals (Net)	38,939,029	0	0	0	0	0	0	0	0	0	0	38,939,029	0
CLAIM RESERVE													
10. Present value of amounts not yet due on claims	21,904,902											21,904,902	
11. Additional actuarial reserves-Asset/Liability analysis	41,343										41,343		
12. Reserve for future contingent benefits	0												
13. Aggregate write-ins for reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
14. Totals (Gross)	21,946,245	0	0	0	0	0	0	0	0	0	41,343	21,904,902	0
15. Reinsurance ceded	8,447,056										41,343	8,405,713	
16. Totals (Net)	13,499,189	0	0	0	0	0	0	0	0	0	0	13,499,189	0
17. TOTAL (Net)	52,438,218	0	0	0	0	0	0	0	0	0	0	52,438,218	0
18. TABULAR FUND INTEREST	2,001,818											2,001,818	
DETAILS OF WRITE-INS													
0601.													
0602.													
0603.													
0698. Summary of remaining write-ins for Line 6 from overflow page	0	0	0	0	0	0	0	0	0	0	0	0	0
0699. TOTALS (Lines 0601 thru 0603 plus 0698) (Line 6 above)	0	0	0	0	0	0	0	0	0	0	0	0	0
1301.													
1302.													
1303.													
1398. Summary of remaining write-ins for Line 13 from overflow page	0	0	0	0	0	0	0	0	0	0	0	0	0
1399. TOTALS (Lines 1301 thru 1303 plus 1398) (Line 13 above)	0	0	0	0	0	0	0	0	0	0	0	0	0

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

(b) Attach statement as to valuation standard used in calculating this reserve, specifying reserve bases, interest rates and methods.

EXHIBIT 7 - DEPOSIT TYPE CONTRACTS

	1	2	3	4	5	6
	Total	Guaranteed Interest Contracts	Annuities Certain	Supplemental Contracts	Dividend Accumulations or Refunds	Premium and Other Deposit Funds
1. Balance at the beginning of the year before reinsurance	889,590,618	0	388,791,489	0	0	500,799,129
2. Deposits received during the year	18,694,942		18,694,942			
3. Investment earnings credited to the account	22,731,937		14,121,937			8,610,000
4. Other net change in reserves	133,067,217		133,086,522			(19,305)
5. Fees and other charges assessed	11,808,294		11,808,294			
6. Surrender charges	0					
7. Net surrender or withdrawal payments	148,696,002		140,086,002			8,610,000
8. Other net transfers to or (from) Separate Accounts	0					
9. Balance at the end of current year before reinsurance (Lines 1+2+3+4-5-6-7-8) (a)	903,580,418	0	402,800,594	0	0	500,779,824
10. Reinsurance balance at the beginning of the year	(109,767,000)	0	(117,401,363)	305,599	5,430,592	1,898,172
11. Net change in reinsurance assumed	142,488		425,312	(12,069)	(212,819)	(57,936)
12. Net change in reinsurance ceded	5,985,632		5,985,632			
13. Reinsurance balance at the end of the year (Lines 10+11-12)	(115,610,144)	0	(122,961,683)	293,530	5,217,773	1,840,236
14. Net balance at the end of current year after reinsurance (Lines 9 + 13)	787,970,274	0	279,838,911	293,530	5,217,773	502,620,060

(a) FHLB Funding Agreements:

1. Reported as GICs (captured in column 2)	\$
2. Reported as Annuities Certain (captured in column 3)	\$279,838,911
3. Reported as Supplemental Contracts (captured in column 4)	\$293,530
4. Reported as Dividend Accumulations or Refunds (captured in column 5)	\$5,217,772
5. Reported as Premium or Other Deposit Funds (captured in column 6)	\$502,620,061
6. Total Reported as Deposit-Type Contracts (captured in column 1): (Sum of Lines 1 through 5) .	\$787,970,274

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT 8 - CLAIMS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

PART 1 - Liability End of Current Year

		1	2	3	4	5	6	7	8
		Total	Individual Life	Group Life	Individual Annuities	Group Annuities	Accident & Health	Fraternal	Other Lines of Business
1.	Due and unpaid:								
	1.1 Direct	0							
	1.2 Reinsurance assumed	0							
	1.3 Reinsurance ceded	0							
	1.4 Net	0	0	0	0	0	0	0	0
2.	In course of settlement:								
	2.1 Resisted								
	2.11 Direct	0							
	2.12 Reinsurance assumed	0							
	2.13 Reinsurance ceded	0							
	2.14 Net	0	(b) 0	(b) 0	(b) 0	0	0	0	0
	2.2 Other								
	2.21 Direct	294,079,340	4,589,123	29,788	285,468,794	3,580,938	410,697		
	2.22 Reinsurance assumed	3,975,080	1,580,756	1,000	1,796,666		596,658		
	2.23 Reinsurance ceded	136,247,551	3,543,232	26,809	132,266,813		410,697		
	2.24 Net	161,806,869	(b) 2,626,647	(b) 3,979	(b) 154,998,647	3,580,938	(b) 596,658	0	0
3.	Incurred but unreported:								
	3.1 Direct	3,714,298	3,333,779	13,405	200,038		167,076		
	3.2 Reinsurance assumed	1,142,817	1,100,274	16,581			25,962		
	3.3 Reinsurance ceded	1,387,075	1,207,901	12,064	34		167,076		
	3.4 Net	3,470,040	(b) 3,226,152	(b) 17,922	(b) 200,004	0	(b) 25,962	0	0
4.	TOTALS								
	4.1 Direct	297,793,638	7,922,902	43,193	285,668,832	3,580,938	577,773	0	0
	4.2 Reinsurance assumed	5,117,897	2,681,030	17,581	1,796,666	0	622,620	0	0
	4.3 Reinsurance ceded	137,634,626	4,751,133	38,873	132,266,847	0	577,773	0	0
	4.4 Net	165,276,909	(a) 5,852,799	(a) 21,901	155,198,651	3,580,938	622,620	0	0

(a) Including matured endowments (but not guaranteed annual pure endowments) unpaid amounting to \$ in Column 2 and \$ in Column 3.

(b) Include only portion of disability and accident and health claim liabilities applicable to assumed "accrued" benefits. Reserves (including reinsurance assumed and net of reinsurance ceded) for unaccrued benefits for Individual Life \$ Group Life \$, and Individual Annuities \$ are included in Page 3, Line 1, (See Exhibit 5, Section on Disability Disabled Lives); and for Accident and Health \$ are included in Page 3, Line 2 (See Exhibit 6, Claim Reserve).

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT 8 - CLAIMS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

PART 2 - Incurred During the Year

	1	2	3	4	5	6	7	8
	Total	Individual Life (a)	Group Life (b)	Individual Annuities	Group Annuities	Accident & Health	Fraternal	Other Lines of Business
1. Settlements During the Year:								
1.1 Direct	1,272,671,895	42,695,782	1,074,824	1,148,739,709	76,008,473	4,153,107		
1.2 Reinsurance assumed	16,150,726	7,892,043		4,194,044		4,064,639		
1.3 Reinsurance ceded	566,536,252	21,146,863	966,948	540,169,573	99,761	4,153,107		
1.4 Net	(c) 722,286,369	29,440,962	107,876	612,764,180	75,908,712	4,064,639	0	0
2. Liability December 31, current year from Part 1:								
2.1 Direct	297,793,638	7,922,902	43,193	285,668,832	3,580,938	577,773	0	0
2.2 Reinsurance assumed	5,117,897	2,681,030	17,581	1,796,666	0	622,620	0	0
2.3 Reinsurance ceded	137,634,626	4,751,133	38,873	132,266,847	0	577,773	0	0
2.4 Net	165,276,909	5,852,799	21,901	155,198,651	3,580,938	622,620	0	0
3. Amounts recoverable from reinsurers December 31, current year	2,547,295	2,547,295						
4. Liability December 31, prior year:								
4.1 Direct	300,546,971	12,880,999	24,999	284,110,028	3,088,108	442,837		
4.2 Reinsurance assumed	4,664,228	3,086,585	24,581	1,162,419	0	390,643		
4.3 Reinsurance ceded	164,652,378	8,140,135	22,500	156,028,177	18,729	442,837		
4.4 Net	140,558,821	7,827,449	27,080	129,244,270	3,069,379	390,643	0	0
5. Amounts recoverable from reinsurers December 31, prior year	3,690,014	3,690,014		0		0		
6. Incurred Benefits								
6.1 Direct	1,269,918,562	37,737,685	1,093,018	1,150,298,513	76,501,303	4,288,043	0	0
6.2 Reinsurance assumed	16,604,395	7,486,488	(7,000)	4,828,291	0	4,296,616	0	0
6.3 Reinsurance ceded	538,375,781	16,615,142	983,321	516,408,243	81,032	4,288,043	0	0
6.4 Net	748,147,176	28,609,031	102,697	638,718,561	76,420,271	4,296,616	0	0

(a) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ 11,867,219 in Line 1.1, \$ 11,934,839 in Line 1.4.
\$..... 11,867,219 in Line 6.1, and \$ 11,934,839 in Line 6.4.

(b) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ 23,378 in Line 1.1, \$ 2,338 in Line 1.4.
\$..... 23,378 in Line 6.1, and \$ 2,338 in Line 6.4.

(c) Includes \$ premiums waived under total and permanent disability benefits.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT OF NON-ADMITTED ASSETS

	1	2	3
	Current Year Total Nonadmitted Assets	Prior Year Total Nonadmitted Assets	Change in Total Nonadmitted Assets (Col. 2 - Col. 1)
1. Bonds (Schedule D)			0
2. Stocks (Schedule D):			
2.1 Preferred stocks			0
2.2 Common stocks			0
3. Mortgage loans on real estate (Schedule B):			
3.1 First liens			0
3.2 Other than first liens.....			0
4. Real estate (Schedule A):			
4.1 Properties occupied by the company			0
4.2 Properties held for the production of income.....			0
4.3 Properties held for sale			0
5. Cash (Schedule E - Part 1), cash equivalents (Schedule E - Part 2) and short-term investments (Schedule DA)			0
6. Contract loans			0
7. Derivatives (Schedule DB)			0
8. Other invested assets (Schedule BA)			0
9. Receivables for securities			0
10. Securities lending reinvested collateral assets (Schedule DL)			0
11. Aggregate write-ins for invested assets	0	0	0
12. Subtotals, cash and invested assets (Lines 1 to 11)	0	0	0
13. Title plants (for Title insurers only)			0
14. Investment income due and accrued		10,205,864	10,205,864
15. Premiums and considerations:			
15.1 Uncollected premiums and agents' balances in the course of collection	5,378	36,509	31,131
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due .	4,225,358	6,502,575	2,277,217
15.3 Accrued retrospective premiums and contracts subject to redetermination			0
16. Reinsurance:			
16.1 Amounts recoverable from reinsurers		1,729,036	1,729,036
16.2 Funds held by or deposited with reinsured companies			0
16.3 Other amounts receivable under reinsurance contracts			0
17. Amounts receivable relating to uninsured plans			0
18.1 Current federal and foreign income tax recoverable and interest thereon			0
18.2 Net deferred tax asset	36,129,764	2,226,503	(33,903,261)
19. Guaranty funds receivable or on deposit			0
20. Electronic data processing equipment and software			0
21. Furniture and equipment, including health care delivery assets	5,389,360		(5,389,360)
22. Net adjustment in assets and liabilities due to foreign exchange rates			0
23. Receivables from parent, subsidiaries and affiliates			0
24. Health care and other amounts receivable			0
25. Aggregate write-ins for other than invested assets	8,955,194	11,202,221	2,247,027
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	54,705,054	31,902,708	(22,802,346)
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts			0
28. Total (Lines 26 and 27)	54,705,054	31,902,708	(22,802,346)
DETAILS OF WRITE-INS			
1101.			
1102.			
1103.			
1198. Summary of remaining write-ins for Line 11 from overflow page	0	0	0
1199. Totals (Lines 1101 thru 1103 plus 1198)(Line 11 above)	0	0	0
2501. Accounts receivable	8,955,194	11,202,221	2,247,027
2502.			
2503.			
2598. Summary of remaining write-ins for Line 25 from overflow page	0	0	0
2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above)	8,955,194	11,202,221	2,247,027

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 #	2023	2022
(1) State basis	XXX	XXX	XXX	\$ 19,255,505	\$ 158,026,906
(2) State prescribed practices that increase/(decrease) NAIC SAP	XXX	XXX	XXX		
OAC 3901-1-67:					
Derivative instruments	86	4	7, 3	(25,894,277)	(26,420,295)
Reserves for fixed indexed annuities	51	4	1, 19	306,594,598	(187,982,067)
Tax impact	101	4	18.2, 32	686,970	45,024,496
(3) State permitted practices that increase/(decrease) NAIC SAP	XXX	XXX	XXX	-	-
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	<u>\$ (262,131,786)</u>	<u>\$ 327,404,772</u>
Surplus					
(5) Statutory surplus state basis	XXX	XXX	XXX	\$ 3,084,455,600	\$ 2,832,582,838
(6) State prescribed practices that increase/(decrease) NAIC SAP					
OAC 3901-1-67:					
Derivative instruments	86	2, 4	7, 3	(501,956,829)	(39,219,472)
Reserves for fixed indexed annuities	51	3, 4	1, 19	354,794,935	48,200,337
Tax impact	101	2, 4	18.2, 32	45,884,167	13,094,188
(7) State permitted practices that increase/(decrease) NAIC SAP	XXX	XXX	XXX	-	-
(8) NAIC SAP (5-6-7=8)	XXX	XXX	XXX	<u>\$ 3,185,733,326</u>	<u>\$ 2,810,507,785</u>

B. Use of Estimates in Preparation of the Financial Statements

The preparation of financial statements in conformity with NAIC SAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities. It also requires disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the period. Actual results could differ from those estimates.

C. Accounting Policy

Life premiums are recognized as revenues over the premium paying period of the related policies. Annuity considerations are recognized as revenue when received. Health premiums are earned ratably over the terms of the related insurance and reinsurance contracts or policies. Expenses incurred in connection with acquiring new insurance business, including acquisition costs such as sales commissions, are charged to operations as incurred.

In addition, the Company uses the following accounting policies:

- (1) Short-term investments are stated at cost.
- (2) Bonds with an NAIC rating of 1 through 5 are stated at amortized cost using the interest method; all others are stated at the lower of amortized cost or fair value. Mandatory convertible bonds are stated at the lower of book value or fair value, regardless of the NAIC designation. The Company does not own any SVO Identified Exchange Traded Funds.
- (3) Common stocks are stated at fair value, except investments in stocks of wholly owned subsidiaries which are carried on the equity basis, in accordance with Statement of Statutory Accounting Principle ("SSAP") No. 97.
- (4) Redeemable preferred stocks rated P1 through P3 and perpetual preferred stocks rated 1 through 3 are stated at book value; all others are stated at the lower of book value or fair value.
- (5) Mortgage loans are stated at the aggregate carrying value less accrued interest. The Company has no real estate.
- (6) For residential mortgage-backed securities (RMBS), commercial mortgage-backed securities (CMBS) and loan-backed and structured securities (LBASS), the NAIC has retained a third-party investment management firm to assist in the determination of the appropriate NAIC designations and Book Adjusted Carrying Values based on not only the profitability of loss, but also the severity of loss. Those RMBS, CMBS and LBASS securities that are not modeled but receive a current year NAIC Credit Rating Provider (CRP) rating equal to NAIC 1 and 2 are stated at amortized cost and NAIC 3-6 are stated at lower of amortized cost or fair value. Mandatory convertible bonds are stated at the lower of book value or fair value, regardless of NAIC designation.
- (7) The Company carries several affiliated insurance companies and non-insurance companies at statutory and GAAP equity, respectively, in accordance with SSAP No. 97. The goodwill balances have been fully amortized.
- (8) Other invested assets are stated at the lower of cost or fair value, except investments in limited partnerships and limited liability companies. Investments in limited partnerships and limited liability companies are stated at the underlying audited GAAP equity.
- (9) Options to hedge the Company's fixed-indexed annuities are valued at amortized cost (refer to Note 8). All other derivative instruments in the Company's investment portfolio are valued at fair value. The impact of the change in the fair value is recognized as an unrealized gain or loss to surplus.
- (10) The Company anticipates investment income as a factor in the premium deficiency calculation, in accordance with SSAP No. 54R—*Individual and Group Accident and Health Contracts*.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

- (11) Liabilities for losses and loss/claim adjustment expenses for accident and health contracts are estimated by the Company's valuation actuary using statistical claim development models to develop best estimates of liabilities for medical expense business and using tabular reserves employing mortality/morbidity tables and discount rates specified by regulatory authorities for disability income business.
- (12) The Company has not modified its capitalization policy from the prior period.
- (13) The Company has no pharmaceutical rebate receivables.

D. Going Concern

After review of the Company's financial condition, management has no doubts about the Company's ability to continue as a going concern.

Note 2 - Accounting Changes and Corrections of Errors

For the year ended December 31, 2023, corrections of prior years' errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		
	Prior Years' Net Income	Current Year Surplus	Asset or Liability Balances
Bonds	\$ 9,506,558	\$ 9,506,558	\$ 9,506,558
Mortgage loans	(272,077)	(272,077)	(272,077)
Other invested assets	19,437,735	19,437,735	19,437,735
Payable for securities	(13,326,188)	(13,326,188)	13,326,188
Current federal income tax recoverable	(3,222,666)	(3,222,666)	(3,222,666)
Total	<u>\$ 12,123,362</u>	<u>\$ 12,123,362</u>	

The Company had no material changes in accounting principles except for the following.

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 annuity reserve liabilities. Under OAC 3901-1-67, derivative instruments will be carried on the statutory balance sheet at amortized cost with the initial hedge cost amortized over the term and asset payoffs realized at the end of the term being reported through net investment income rather than derivative instruments being carried at fair value with asset payoffs realized over the term through change in net unrealized capital gains and losses. Additionally, the cash surrender value reserves for equity indexed annuity products will only reflect index interest credits at the end of the crediting term as compared to partial index interest credits accumulating throughout the crediting term in increase in aggregate reserves for life and accident and health contracts. As a result of the Company's election to apply OAC 3901-1-67 as of January 1, 2022, total statutory admitted assets decreased \$393,568,270, total statutory liabilities decreased \$236,182,404 and total statutory capital and surplus decreased \$157,385,866. The following table summarizes the components of the total decrease in statutory surplus:

Change in fixed indexed annuity reserves	\$ 236,182,404
Change in net deferred income tax	60,798,989
Derivatives instruments	(454,367,259)
Total decrease in statutory surplus	<u>\$ (157,385,866)</u>

Note 3 - Business Combinations and Goodwill

- A. The Company has no business combinations accounted for under the statutory purchase method.
- B. The Company was not involved in any statutory mergers.
- C. The Company did not recognize any goodwill resulting from assumption reinsurance transactions.
- D. The Company did not recognize any impairment losses related to business combinations or goodwill.
- E. Subcomponents and Calculation of Adjusted Surplus and Total Admitted Goodwill

	Calculation of Limitation Using Prior Quarter Numbers	Current Reporting Period
(1) Capital & Surplus	\$ 3,111,356,722	XXX
Less:		
(2) Admitted Positive Goodw ill	-	XXX
(3) Admitted EDP Equipment & Operating System Softw are	-	XXX
(4) Admitted Net Deferred Taxes	198,291,500	XXX
(5) Adjusted Capital and Surplus (Line 1-+2-+3-+4)	<u>\$ 2,913,065,222</u>	XXX
(6) Limitation on amount of goodw ill (adjusted capital and surplus times 10% goodw ill limitation [Line 5*10%])	291,306,522	XXX
(7) Current period reporting Admitted Goodw ill	XXX	-
(8) Current Period Admitted Goodw ill as a % of prior period Adjusted Capital and Surplus (Line7/Line5)	XXX	0%

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

Note 4 - Discontinued Operations

The Company has no discontinued operations.

Note 5 - Investments

A. Mortgage Loans, including Mezzanine Real Estate Loans

- (1) The maximum and minimum lending rates for new mortgage loans during 2023 were:
Commercial mortgage loans 10.99% and 4.73%, residential mortgage loans 11.80% and 7.10% and mezzanine real estate loans 11.00% and 11.00%
- (2) The maximum percentage of any one loan to the value of security at the time of the loan, exclusive of mezzanine, insured, guaranteed or purchase money mortgages, was 100% as of December 31, 2023.
- (3) The Company had no taxes, assessments or any amounts advanced and not included in the mortgage loan total.
- (4) Age Analysis of Mortgage Loans and Identification of Mortgage Loans in which the Insurer is a Participant or Co-Lender in a Mortgage Loan Agreement:

	Residential			Commercial		Mezzanine	Total
	Farm	Insured	All Other	Insured	All Other		
a. Current Year							
1. Recorded Investment (All)							
a. Current	\$ -	\$ 428,091,616	\$ 2,348,897,077	\$ -	\$ 1,431,927,155	\$ 47,593,713	\$ 4,256,509,561
b. 30-59 Days Past Due	-	-	-	-	-	-	-
c. 60-89 Days Past Due	-	-	-	-	-	-	-
d. 90-179 Days Past Due	-	-	-	-	-	-	-
e. 180+ Days Past Due	-	-	-	-	-	-	-
2. Accruing Interest 90-179 Days Past Due							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Interest Accrued	-	-	-	-	-	-	-
3. Accruing Interest 180+ Days Past Due							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Interest Accrued	-	-	-	-	-	-	-
4. Interest Reduced							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Number of Loans	-	-	-	-	-	-	-
c. Percent Reduced	0%	0%	0%	0%	0%	0%	0%
5. Participant or Co-Lender in a Mortgage Loan Agreement							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Prior Year							
1. Recorded Investment (All)							
a. Current	\$ -	\$ 486,645,834	\$ 1,316,118,325	\$ -	\$ 1,263,455,753	\$ 22,593,648	\$ 3,088,813,560
b. 30-59 Days Past Due	-	-	-	-	-	-	-
c. 60-89 Days Past Due	-	-	-	-	-	-	-
d. 90-179 Days Past Due	-	-	-	-	-	-	-
e. 180+ Days Past Due	-	-	-	-	-	-	-
2. Accruing Interest 90-179 Days Past Due							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Interest Accrued	-	-	-	-	-	-	-
3. Accruing Interest 180+ Days Past Due							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Interest Accrued	-	-	-	-	-	-	-
4. Interest Reduced							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
b. Number of Loans	-	-	-	-	-	-	-
c. Percent Reduced	0%	0%	0%	0%	0%	0%	0%
5. Participant or Co-Lender in a Mortgage Loan Agreement							
a. Recorded Investment	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

- (5) The Company had no investment in impaired loans with or without allowance for credit losses.
- (6) The Company had no investment in impaired loans.
- (7) The Company had no allowance for credit losses.
- (8) The Company had no mortgage loans derecognized as a result of foreclosure.
- (9) The Company recognizes interest income on its impaired loans upon receipt.

B. The Company has no restructured debt.

C. The Company has no investment in reverse mortgages.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

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.
- (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
00176BAM5	\$ 202,546	\$ 110,277	\$ 92,269	\$ 110,277	\$ 116,065	03/31/2023
001406AA5	1,763,035	1,274,229	488,807	1,274,229	1,285,767	03/31/2023
26827EAC9	9,193,316	4,723,119	4,470,196	4,723,119	6,207,776	03/31/2023
3622EAAA8	3,756,795	3,647,858	108,936	3,647,858	3,611,452	03/31/2023
61751DAE4	1,645,601	1,578,836	66,764	1,578,836	1,967,072	03/31/2023
617526AD0	2,356,207	2,115,198	241,009	2,115,198	2,354,557	03/31/2023
86358RXZ5	421,445	412,256	9,189	412,256	413,530	03/31/2023
05951KAN3	622,182	623,350	(1,169)	623,350	601,336	03/31/2023
059522AU6	2,269,369	2,102,631	166,738	2,102,631	2,176,835	03/31/2023
12628LAD2	785,041	763,053	21,988	763,053	660,429	03/31/2023
12667F4N2	2,210,900	2,186,739	24,161	2,186,739	2,182,686	03/31/2023
12667F5E1	1,062,067	1,059,207	2,860	1,059,207	995,081	03/31/2023
12668APC3	896,073	883,009	13,065	883,009	857,687	03/31/2023
17307GED6	1,409,643	1,393,308	16,335	1,393,308	1,455,502	03/31/2023
17309BAB3	220,495	214,662	5,834	214,662	195,222	03/31/2023
32051GSQ9	1,814,597	1,786,038	28,559	1,786,038	1,836,075	03/31/2023
32051GT70	663,419	662,609	810	662,609	596,313	03/31/2023
46627MAD9	589,002	581,089	7,914	581,089	518,389	03/31/2023
46627MEJ2	1,138,638	1,136,631	2,006	1,136,631	957,220	03/31/2023
59020UW43	223,543	223,584	(41)	223,584	245,108	03/31/2023
643529AC4	537,761	506,075	31,686	506,075	563,770	03/31/2023
74923GAC7	1,432,936	1,431,302	1,634	1,431,302	1,521,208	03/31/2023
74923HAQ4	538,028	538,123	(95)	538,123	480,166	03/31/2023
74928RAB0	248,088	241,996	6,091	241,996	266,975	03/31/2023
74928XBB6	4,436,827	3,886,418	550,409	3,886,418	4,352,809	03/31/2023
75115BAC3	1,010,823	1,015,108	(4,285)	1,015,108	1,087,275	03/31/2023
75115DAA3	195,780	193,598	2,183	193,598	182,546	03/31/2023
761118BU1	717,506	688,322	29,183	688,322	756,457	03/31/2023
761118FM5	2,089,659	1,852,770	236,889	1,852,770	1,945,475	03/31/2023
761118GS1	1,139,848	1,138,816	1,032	1,138,816	1,041,063	03/31/2023
761118SC3	1,581,486	1,581,588	(103)	1,581,588	1,360,351	03/31/2023
761118UG1	506,268	503,201	3,067	503,201	428,316	03/31/2023
76112BNM8	4,707,569	4,708,889	(1,320)	4,708,889	4,941,288	03/31/2023
855541AC2	854,276	851,419	2,857	851,419	808,830	03/31/2023
863579J90	344,828	339,476	5,352	339,476	355,595	03/31/2023
86360BAG3	1,782,553	1,688,545	94,008	1,688,545	1,858,413	03/31/2023
86360BAJ7	684,793	671,937	12,855	671,937	700,892	03/31/2023
87222EAB4	838,918	811,788	27,130	811,788	736,793	03/31/2023
87222EAC2	971,562	933,068	38,494	933,068	795,832	03/31/2023
45660LCK3	2,673,423	2,598,842	74,581	2,598,842	2,689,571	03/31/2023
939336X99	1,829,627	1,670,689	158,938	1,670,689	1,792,660	03/31/2023
05949CHM1	768,548	755,812	12,736	755,812	773,623	03/31/2023
05949CKX3	1,213,201	1,188,146	25,055	1,188,146	1,243,199	03/31/2023
05990HAT0	934,146	930,177	3,969	930,177	940,458	03/31/2023
073880AD8	1,121,205	1,122,339	(1,134)	1,122,339	1,064,409	03/31/2023
07401CAS2	3,138,214	3,078,739	59,474	3,078,739	3,132,170	03/31/2023
12543XAD8	1,165,771	1,150,483	15,288	1,150,483	1,070,971	03/31/2023
12544DAG4	85,474	83,364	2,109	83,364	73,861	03/31/2023
12545EAK2	1,406,029	1,363,895	42,134	1,363,895	1,226,917	03/31/2023
12638PAB5	719,347	697,335	22,011	697,335	549,668	03/31/2023
126694CS5	2,842,754	2,832,174	10,581	2,832,174	2,292,959	03/31/2023
126694HIP6	421,087	419,930	1,157	419,930	402,076	03/31/2023
12669G3S8	1,254,365	1,250,349	4,015	1,250,349	1,124,398	03/31/2023
16165MAG3	1,841,254	1,776,091	65,163	1,776,091	1,597,907	03/31/2023
2254582Y3	1,208,346	1,200,002	8,344	1,200,002	1,082,976	03/31/2023
225458L55	539,692	536,533	3,159	536,533	500,154	03/31/2023
225470VF7	1,460,576	1,422,984	37,592	1,422,984	1,400,985	03/31/2023
36185N6N5	4,571,722	4,071,935	499,788	4,071,935	4,514,039	03/31/2023
362341FN4	774,099	765,095	9,005	765,095	702,117	03/31/2023
362341XC8	857,596	848,675	8,921	848,675	768,173	03/31/2023
36242DQY2	99,752	97,979	1,772	97,979	93,530	03/31/2023
41161PCX9	191,672	191,284	388	191,284	190,228	03/31/2023
466247J46	74,610	73,055	1,554	73,055	73,519	03/31/2023
466247UG6	526,361	514,800	11,561	514,800	510,820	03/31/2023

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
46630WAB6	872,431	866,888	5,543	866,888	808,108	03/31/2023
46630WAL4	506,494	500,786	5,709	500,786	479,625	03/31/2023
46631NAA7	719,259	693,483	25,776	693,483	569,822	03/31/2023
576433D52	503,578	493,400	10,178	493,400	450,563	03/31/2023
57643MLZ5	284,150	280,753	3,397	280,753	269,995	03/31/2023
59023PAB9	508,302	498,819	9,484	498,819	517,983	03/31/2023
74958YAE2	287,181	287,688	(507)	287,688	287,680	03/31/2023
78473TAJ9	198,841	177,853	20,989	177,853	154,392	03/31/2023
863579RP5	609,579	590,361	19,218	590,361	577,909	03/31/2023
863579UL0	263,373	261,997	1,377	261,997	256,211	03/31/2023
92979DAC9	2,710,529	2,629,297	81,232	2,629,297	2,800,364	03/31/2023
94984DAC8	342,454	342,081	373	342,081	345,646	03/31/2023
94986CAA2	264,625	265,827	(1,202)	265,827	262,986	03/31/2023
001406AA55	27,755	-	27,755	-	-	06/30/2023
61751DAE4	1,614,822	1,548,177	66,645	1,548,177	1,908,732	06/30/2023
86358RXZ5	381,361	332,609	48,752	332,609	337,433	06/30/2023
02146TAL1	361,912	345,869	16,042	345,869	366,804	06/30/2023
02147XAR8	617,209	612,988	4,221	612,988	505,733	06/30/2023
059522AU6	2,107,010	2,107,010	0	2,107,010	2,147,399	06/30/2023
07386XAH9	984,857	984,374	483	984,374	807,325	06/30/2023
12566UAN4	572,055	570,484	1,571	570,484	586,599	06/30/2023
12628LAD2	766,444	716,904	49,540	716,904	624,798	06/30/2023
12667F5E1	1,039,544	1,031,360	8,184	1,031,360	960,648	06/30/2023
12667GAC7	662,986	611,428	51,558	611,428	628,342	06/30/2023
12668APC3	845,763	838,619	7,144	838,619	804,549	06/30/2023
17309BAB3	213,365	208,774	4,591	208,774	183,775	06/30/2023
32051GSQ9	1,688,266	1,682,972	5,294	1,682,972	1,728,278	06/30/2023
32051GT70	654,707	650,913	3,793	650,913	584,241	06/30/2023
36244SAD0	2,252,386	2,071,962	180,424	2,071,962	2,271,187	06/30/2023
43739EAP2	616,209	611,759	4,449	611,759	570,177	06/30/2023
46627MAD9	572,129	572,115	13	572,115	503,882	06/30/2023
46627MEC7	377,567	371,830	5,737	371,830	339,925	06/30/2023
46627MEJ2	1,118,100	1,113,603	4,497	1,113,603	921,828	06/30/2023
643529AC4	520,520	491,053	29,467	491,053	557,549	06/30/2023
65535VNL8	2,089,478	2,081,888	7,590	2,081,888	2,063,447	06/30/2023
65535VSJ8	1,285,712	1,246,997	38,715	1,246,997	1,115,827	06/30/2023
74923HAQ4	525,772	519,269	6,502	519,269	443,687	06/30/2023
75116FBH1	1,485,771	1,465,650	20,121	1,465,650	1,253,422	06/30/2023
761118SC3	1,528,680	1,515,672	13,008	1,515,672	1,309,921	06/30/2023
761118UG1	485,611	483,232	2,379	483,232	409,243	06/30/2023
863579J90	326,147	321,439	4,707	321,439	331,247	06/30/2023
86360BAJ7	664,426	663,728	698	663,728	678,337	06/30/2023
87222EAB4	814,203	791,937	22,266	791,937	715,293	06/30/2023
87222EAC2	944,500	906,175	38,325	906,175	780,900	06/30/2023
05949CHM1	754,991	752,303	2,689	752,303	770,786	06/30/2023
05949CKX3	1,233,035	1,190,687	42,348	1,190,687	1,225,158	06/30/2023
07386YAE4	1,919,895	1,890,046	29,849	1,890,046	1,717,512	06/30/2023
073880AD8	1,095,079	1,087,921	7,158	1,087,921	1,010,811	06/30/2023
12543XAD8	1,146,866	1,132,734	14,132	1,132,734	1,025,398	06/30/2023
12544DAG4	82,048	82,482	(434)	82,482	72,144	06/30/2023
12638PAB5	704,325	687,341	16,984	687,341	538,077	06/30/2023
12669G3S8	1,216,352	1,205,920	10,432	1,205,920	1,077,627	06/30/2023
16165MAG3	1,698,141	1,698,815	(675)	1,698,815	1,501,094	06/30/2023
17025AAH5	866,588	804,309	62,279	804,309	831,165	06/30/2023
2254582Y3	239,471	239,472	(2)	239,472	214,686	06/30/2023
225458L55	535,805	532,092	3,713	532,092	459,983	06/30/2023
225470VF7	1,403,814	1,403,895	(81)	1,403,895	1,341,332	06/30/2023
45669AAD6	3,387,280	3,358,005	29,274	3,358,005	3,217,657	06/30/2023
466247J46	71,231	71,237	(5)	71,237	69,271	06/30/2023
466247ZP1	550,885	540,659	10,226	540,659	482,855	06/30/2023
46628LAB4	41,586	40,556	1,030	40,556	41,521	06/30/2023
46630WAL4	515,281	485,878	29,403	485,878	468,594	06/30/2023
46631NAA7	691,427	678,636	12,791	678,636	532,232	06/30/2023
46631NDT3	6,223,773	6,162,743	61,029	6,162,743	6,052,651	06/30/2023
576433D52	492,252	487,446	4,806	487,446	417,672	06/30/2023
57643MLZ5	269,334	264,924	4,410	264,924	253,589	06/30/2023
59023PAB9	497,202	495,714	1,488	495,714	511,575	06/30/2023
74958YAE2	281,262	262,418	18,844	262,418	270,970	06/30/2023
863579XC7	1,084,387	1,062,034	22,353	1,062,034	1,101,633	06/30/2023
863579XR4	2,120,615	2,023,213	97,402	2,023,213	2,051,084	06/30/2023
86363GAF1	1,315,519	1,224,816	90,703	1,224,816	1,244,515	06/30/2023
885220KW2	1,906,234	1,901,275	4,960	1,901,275	1,823,623	06/30/2023
00176BAM54	101,071	71	101,000	71	78,651	09/30/2023
57430U301	1,207,914	922,371	285,543	922,371	815,210	09/30/2023

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

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
07325DAF1	214,725	211,984	2,742	211,984	195,404	09/30/2023
3622EAAA8	3,564,775	3,424,094	140,681	3,424,094	3,261,277	09/30/2023
61751DAE4	1,569,635	1,508,933	60,702	1,508,933	1,731,342	09/30/2023
86358RXY8	199,869	182,391	17,478	182,391	196,421	09/30/2023
86358RXZ5	297,911	283,221	14,691	283,221	280,466	09/30/2023
02146TAL1	356,025	334,459	21,566	334,459	347,841	09/30/2023
02147XAR8	595,098	598,203	(3,104)	598,203	483,800	09/30/2023
058933AN2	801,762	795,980	5,782	795,980	738,147	09/30/2023
059522AU6	2,113,373	2,046,846	66,528	2,046,846	2,043,226	09/30/2023
07386XAH9	967,729	884,778	82,951	884,778	783,965	09/30/2023
12628LAD2	722,914	702,073	20,842	702,073	584,662	09/30/2023
12667F4N2	2,131,981	2,102,525	29,456	2,102,525	2,003,869	09/30/2023
12667F5E1	998,934	999,062	(128)	999,062	919,366	09/30/2023
12667GAC7	641,949	642,107	(158)	642,107	605,263	09/30/2023
12668APC3	811,652	812,953	(1,300)	812,953	775,662	09/30/2023
17307GED6	1,383,968	1,370,895	13,074	1,370,895	1,414,213	09/30/2023
17309BAB3	205,994	202,794	3,201	202,794	171,985	09/30/2023
32051GSQ9	1,609,003	1,603,331	5,672	1,603,331	1,656,065	09/30/2023
32051GT70	638,394	635,227	3,166	635,227	561,409	09/30/2023
36244SAD0	2,086,866	2,091,595	(4,729)	2,091,595	2,092,913	09/30/2023
43739EAP2	600,361	591,499	8,862	591,499	566,842	09/30/2023
46627MAD9	551,967	541,058	10,909	541,058	474,792	09/30/2023
46627MEC7	364,017	360,581	3,437	360,581	323,064	09/30/2023
46627MEJ2	1,097,236	1,094,239	2,997	1,094,239	888,082	09/30/2023
643529AC4	504,332	491,904	12,428	491,904	538,114	09/30/2023
65535VNL8	2,075,144	2,055,698	19,446	2,055,698	2,078,429	09/30/2023
65535VSJ8	1,256,596	1,234,664	21,931	1,234,664	1,073,207	09/30/2023
69337BAH7	1,342,250	1,324,870	17,380	1,324,870	1,128,015	09/30/2023
74923HAQ4	509,767	510,394	(627)	510,394	429,265	09/30/2023
75115DAA3	188,747	185,664	3,083	185,664	182,465	09/30/2023
761118GS1	1,085,700	1,072,281	13,419	1,072,281	1,007,009	09/30/2023
761118SC3	1,483,628	1,492,604	(8,976)	1,492,604	1,269,597	09/30/2023
761118UG1	468,938	469,663	(725)	469,663	393,703	09/30/2023
863579J90	308,602	305,810	2,792	305,810	317,961	09/30/2023
86360BAJ7	651,289	649,170	2,119	649,170	663,487	09/30/2023
87222EAB4	794,273	757,539	36,733	757,539	695,006	09/30/2023
87222EAC2	917,429	875,091	42,338	875,091	735,483	09/30/2023
41161PTN3	331,804	277,221	54,583	277,221	311,042	09/30/2023
45660LCK3	2,616,065	2,518,214	97,852	2,518,214	2,766,498	09/30/2023
05946XY72	1,018,663	1,014,239	4,424	1,014,239	947,595	09/30/2023
05949CHM1	666,490	660,363	6,127	660,363	690,602	09/30/2023
07386YAE4	1,885,974	1,866,881	19,093	1,866,881	1,705,295	09/30/2023
073880AD8	1,076,505	1,037,154	39,351	1,037,154	987,684	09/30/2023
12543XAD8	1,101,148	1,105,980	(4,831)	1,105,980	936,389	09/30/2023
12638PAB5	694,351	675,173	19,178	675,173	512,071	09/30/2023
12669G4K4	2,601,658	2,601,146	511	2,601,146	2,396,294	09/30/2023
12669GR45	498,496	476,051	22,445	476,051	430,865	09/30/2023
170257AE9	2,360,086	2,294,691	65,396	2,294,691	1,706,184	09/30/2023
17025AAH5	753,396	787,624	(34,228)	787,624	795,445	09/30/2023
225458L55	495,061	491,459	3,602	491,459	425,644	09/30/2023
22547OVF7	1,387,201	1,333,114	54,088	1,333,114	1,298,598	09/30/2023
32052EAA7	46,567	43,785	2,782	43,785	40,679	09/30/2023
362341FN4	754,611	747,216	7,395	747,216	669,320	09/30/2023
362341XC8	827,434	812,370	15,063	812,370	684,900	09/30/2023
41161PCX9	180,773	179,982	791	179,982	176,391	09/30/2023
46631NDT3	5,999,611	6,009,390	(9,779)	6,009,390	5,617,945	09/30/2023
47233DAB7	595,329	204,708	390,622	204,708	681,585	09/30/2023
576433D52	486,384	480,875	5,509	480,875	413,266	09/30/2023
57643MLZ5	248,993	244,183	4,811	244,183	230,150	09/30/2023
59023PAB9	483,479	478,356	5,122	478,356	492,971	09/30/2023
74958TAB9	519,216	508,266	10,950	508,266	470,425	09/30/2023
863579RP5	591,272	566,391	24,881	566,391	560,020	09/30/2023
863579UL0	259,923	258,399	1,523	258,399	245,880	09/30/2023
863579UU0	1,016,080	963,663	52,416	963,663	990,946	09/30/2023
863579XC7	1,037,796	981,054	56,742	981,054	1,022,671	09/30/2023
86363GAF1	1,179,527	1,182,146	(2,619)	1,182,146	1,193,014	09/30/2023
885220KW2	1,896,532	1,874,254	22,278	1,874,254	1,835,343	09/30/2023
07325DAF1	193,552	193,679	(127)	193,679	183,083	12/31/2023
3622EAAA8	3,286,278	3,237,272	49,006	3,237,272	3,255,864	12/31/2023
61751DAE4	1,543,361	1,498,683	44,678	1,498,683	1,797,931	12/31/2023
75156VAD7	2,959,112	2,496,716	462,396	2,496,716	2,973,028	12/31/2023
86358RDX2	963,691	945,774	17,917	945,774	795,532	12/31/2023
86358RXY8	191,518	165,259	26,259	165,259	165,808	12/31/2023
86358RXZ5	327,597	248,323	79,275	248,323	244,869	12/31/2023

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
00703QAD4	2,455,266	2,403,956	51,310	2,403,956	2,362,111	12/31/2023
02147XAR8	582,086	581,667	419	581,667	475,448	12/31/2023
02152AAS8	1,839,976	1,736,745	103,231	1,736,745	1,709,492	12/31/2023
058933AN2	794,268	793,985	283	793,985	750,932	12/31/2023
05951KAN3	580,528	579,964	564	579,964	514,479	12/31/2023
07386XAH9	876,767	875,510	1,257	875,510	782,619	12/31/2023
12628LAD2	708,617	661,150	47,467	661,150	587,483	12/31/2023
12667F4N2	2,025,464	2,012,088	13,376	2,012,088	1,984,305	12/31/2023
12667F5E1	983,360	978,296	5,064	978,296	909,176	12/31/2023
12667GAC7	619,616	613,153	6,463	613,153	585,116	12/31/2023
17307GED6	1,341,806	1,336,284	5,522	1,336,284	1,400,985	12/31/2023
17309BAB3	201,958	198,201	3,757	198,201	176,462	12/31/2023
32051GSQ9	1,522,783	1,512,933	9,850	1,512,933	1,515,991	12/31/2023
32051GT70	619,138	612,519	6,618	612,519	534,842	12/31/2023
36244SAD0	2,148,368	1,989,448	158,920	1,989,448	2,137,247	12/31/2023
43739EAP2	561,096	556,890	4,206	556,890	538,989	12/31/2023
46627MAD9	524,569	524,569	(0)	524,569	468,198	12/31/2023
46627MCY1	3,947,612	3,784,942	162,670	3,784,942	3,845,527	12/31/2023
46627MEC7	353,579	351,690	1,889	351,690	326,489	12/31/2023
643529AC4	505,690	486,982	18,708	486,982	551,521	12/31/2023
65535VNL8	1,947,633	1,933,908	13,724	1,933,908	2,036,022	12/31/2023
65535VSJ8	1,230,484	1,232,758	(2,274)	1,232,758	989,929	12/31/2023
69337BAH7	1,311,917	1,303,815	8,102	1,303,815	1,159,687	12/31/2023
74928RAB0	239,342	216,651	22,691	216,651	238,268	12/31/2023
74928XBB6	3,183,555	3,039,107	144,448	3,039,107	3,430,881	12/31/2023
75115BAC3	1,030,772	916,005	114,767	916,005	1,035,843	12/31/2023
75115DAA3	186,218	186,790	(572)	186,790	164,206	12/31/2023
75116FBH1	1,377,535	1,361,078	16,456	1,361,078	1,145,682	12/31/2023
76110HT90	840,834	582,373	258,461	582,373	917,175	12/31/2023
761118SC3	1,431,534	1,428,103	3,431	1,428,103	1,242,244	12/31/2023
855541AC2	750,496	745,072	5,424	745,072	691,191	12/31/2023
863579J90	303,000	300,072	2,928	300,072	306,643	12/31/2023
86360BAJ7	680,750	643,758	36,993	643,758	672,067	12/31/2023
87222EAB4	834,894	822,502	12,392	822,502	694,825	12/31/2023
87222EAC2	882,066	857,058	25,008	857,058	695,801	12/31/2023
45660LCK3	3,167,425	2,938,420	229,005	2,938,420	2,780,987	12/31/2023
058931AT3	1,095,711	1,095,714	(3)	1,095,714	918,016	12/31/2023
05946XY72	977,968	978,683	(715)	978,683	937,593	12/31/2023
05949CHM1	663,718	655,328	8,390	655,328	662,826	12/31/2023
05949CKX3	1,187,717	1,150,126	37,591	1,150,126	1,168,876	12/31/2023
073880AD8	1,030,655	1,019,083	11,571	1,019,083	930,752	12/31/2023
12544DAG4	78,643	78,571	72	78,571	64,456	12/31/2023
12638PAB5	679,907	659,700	20,206	659,700	486,778	12/31/2023
1266942H0	512,111	510,107	2,004	510,107	423,601	12/31/2023
12669G4K4	2,556,809	2,555,364	1,445	2,555,364	2,427,811	12/31/2023
12669GR45	470,597	467,135	3,462	467,135	435,906	12/31/2023
2254582Y3	1,077,827	1,066,955	10,873	1,066,955	959,317	12/31/2023
225458L55	491,469	487,840	3,628	487,840	406,462	12/31/2023
32052EAA7	43,448	42,472	976	42,472	41,090	12/31/2023
362341FN4	733,600	729,603	3,996	729,603	662,609	12/31/2023
362341XC8	795,518	795,302	217	795,302	720,040	12/31/2023
466247UG6	427,081	426,051	1,029	426,051	391,055	12/31/2023
46628LAB4	37,967	37,273	694	37,273	37,689	12/31/2023
46630WAL4	455,687	451,993	3,694	451,993	302,703	12/31/2023
46631NDT3	5,867,333	5,886,670	(19,337)	5,886,670	5,731,594	12/31/2023
57643MLZ5	229,612	225,458	4,154	225,458	205,035	12/31/2023
59023PAB9	475,891	473,619	2,272	473,619	481,056	12/31/2023
863579RP5	600,470	597,146	3,324	597,146	549,353	12/31/2023
863579UL0	258,471	257,405	1,065	257,405	242,466	12/31/2023
863579UU0	958,195	945,112	13,083	945,112	980,662	12/31/2023
863579XC7	980,418	980,418	(0)	980,418	1,038,343	12/31/2023
863579XR4	1,957,805	1,957,254	552	1,957,254	2,023,487	12/31/2023
86363GAF1	1,167,594	1,159,765	7,829	1,159,765	1,173,720	12/31/2023
885220KW2	1,840,344	1,731,006	109,338	1,731,006	1,616,956	12/31/2023
92979DAC9	2,388,453	2,324,573	63,880	2,324,573	2,467,969	12/31/2023
94984DAC8	277,596	275,841	1,755	275,841	284,511	12/31/2023
			<u>13,772,890</u>			

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

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

\$21,317,553

2. 12 Months or Longer

631,230,119
- b. The aggregate related fair value of securities with unrealized losses:

1. Less than 12 Months

\$1,146,379,140

2. 12 Months or Longer

7,324,812,770
- (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

- (1) The Company did not recognize an impairment loss on real estate.
- (2) The Company had no real estate sales in 2023.
- (3) The Company did not experience changes to a plan of sale for an investment in real estate.
- (4) The Company does not engage in retail land sales operations.
- (5) The Company does not hold real estate investments with participating mortgage loans.

- K. Low Income Housing Tax Credits – Not applicable.

L. Restricted Assets

- (1) Restricted Assets (Including Pledged):

Restricted Asset Category	Gross (Admitted & Nonadmitted) Restricted							Percentage			
	Current Year					6	7	Current Year			
	1	2	3	4	5			8	9	10	11
	Total General Account (G/A)	G/A Supporting Separate Account (S/A) Activity (a)	Total S/A Restricted Assets	S/A Assets Supporting G/A Activity (b)	Total (1 plus 3)	Total From Prior Year	Increase/ (Decrease) (5 minus 6)	Total Nonadmitted Restricted	Total Admitted Restricted (5 minus 8)	Gross Restricted to Total Assets (c)	Admitted Restricted to Total Admitted Assets (d)
a. Subject to contractual obligation for which liability is not shown	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	0%	0%
b. Collateral held under security lending agreements	-	-	-	-	-	-	-	-	-	0%	0%
c. Subject to repurchase agreements	-	-	-	-	-	-	-	-	-	0%	0%
d. Subject to reverse repurchase agreements	-	-	-	-	-	-	-	-	-	0%	0%
e. Subject to dollar repurchase agreements	-	-	-	-	-	-	-	-	-	0%	0%
f. Subject to dollar reverse repurchase agreements	-	-	-	-	-	-	-	-	-	0%	0%
g. Placed under option contracts	-	-	-	-	-	-	-	-	-	0%	0%
h. Letter stock or securities restricted as to sale - excluding FHLB capital stock	157,437,071	-	-	-	157,437,071	241,403,243	(83,966,172)	-	157,437,071	0.3%	0.3%
i. FHLB capital stock	41,525,200	-	-	-	41,525,200	48,262,300	(6,737,100)	-	41,525,200	0.1%	0.1%
j. On deposit with states	6,557,349	-	-	-	6,557,349	6,296,672	260,677	-	6,557,349	0.0%	0.0%
k. On deposit with other regulatory bodies	-	-	-	-	-	-	-	-	-	0.0%	0.0%
l. Pledged as collateral to FHLB (including assets backing funding agreements)	1,279,160,145	-	-	-	1,279,160,145	1,102,328,225	176,831,920	-	1,279,160,145	2.7%	2.7%
m. Pledged as collateral not captured in other categories	196,446,757	-	-	-	196,446,757	167,625,909	28,820,848	-	196,446,757	0.4%	0.4%
n. Other restricted assets	-	-	-	-	-	-	-	-	-	0.0%	0.0%
o. Total restricted assets	\$ 1,681,126,522	\$ -	\$ -	\$ -	\$ 1,681,126,522	\$ 1,565,916,349	\$ 115,210,173	\$ -	\$ 1,681,126,522	3.6%	3.6%

(a) Subset of column 1

(b) Subset of column 3

(c) Column 5 divided by Asset Page, Column 1, Line 28

(d) Column 9 divided by Asset Page, Column 3, Line 28

- (2) Detail of Assets Pledged as Collateral Not Captured in Other Categories (Contracts that Share Similar Characteristics, Such as Reinsurance and Derivatives Are Reported in the Aggregate)

Description of Assets	Gross (Admitted & Nonadmitted) Restricted							Percentage		
	Current Year					6	7	8	9	10
	1	2	3	4	5					
	Total General Account (G/A)	G/A Supporting Separate Account (S/A) Activity (a)	Total S/A Restricted Assets	S/A Assets Supporting G/A Activity (b)	Total (1 plus 3)	Total From Prior Year	Increase/(Decrease) (5 minus 6)	Total Current Year Admitted Restricted	Gross Restricted to Total Assets	Admitted Restricted to Total Admitted Assets
Derivatives	\$ 165,416,503	\$ -	\$ -	\$ -	\$ 165,416,503	\$ 145,352,266	\$ 20,064,237	\$ 165,416,503	0.4%	0.4%
Futures	31,030,255	-	-	-	31,030,255	22,273,643	8,756,612	31,030,255	0.1%	0.1%
Total	\$ 196,446,757	\$ -	\$ -	\$ -	\$ 196,446,757	\$ 167,625,909	\$ 28,820,848	\$ 196,446,757	0.4%	0.4%

(a) Subset of column 1

(b) Subset of column 3

(c) Total Line for Columns 1 through 7 should equal 5H(1)m Columns 1 through 7 respectively and Total Line for Columns 8 through 10 should equal 5H(1)m Columns 9 through 11 respectively

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

- (3) Detail of Other Restricted Assets – Not applicable.
- (4) Collateral Received and Reflected as assets Within the Reporting Entity's Financial Statements

	1	2	3	4
Collateral Assets	Book/Adjusted Carrying Value (BACV)	Fair Value	% of BACV to Total Assets (Admitted and Nonadmitted) *	% of BACV to Total Admitted Assets **
General Account:				
a. Cash, Cash Equivalents and Short-Term Investments	\$ -	\$ -	0.0%	0.0%
b. Schedule D, Part 1	-	-	0.0%	0.0%
c. Schedule D, Part 2, Section 1	-	-	0.0%	0.0%
d. Schedule D, Part 2, Section 2	-	-	0.0%	0.0%
e. Schedule B	-	-	0.0%	0.0%
f. Schedule A	-	-	0.0%	0.0%
g. Schedule BA, Part 1	-	-	0.0%	0.0%
h. Schedule DL, Part 1	-	-	0.0%	0.0%
i. Other	-	-	0.0%	0.0%
Total Collateral Assets				
j. (a+b+c+d+e+f+g+h+i)	\$ -	\$ -	0.0%	0.0%

* Column 1 divided by Asset Page, Line 26 (Column 1)

** Column 1 divided by Asset Page, Line 26 (Column 3)

	1	2
	Amount	% of Liability to Total Liabilities *
k. Recognized Obligation to Return Collateral Asset	\$ 834,827,709	2.1%

* Column 1 divided by Liability Page, Line 26 (Column 1)

- M. Working Capital Finance Investments – Not applicable.
- N. Offsetting and netting of assets and liabilities.

The Company reports derivative agreement assets and liabilities as gross in the financial statements without offsetting as of December 31, 2023.

- 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	45	36	\$ 135,589,812	\$ 102,166,634	\$ 122,893,073	\$ 96,483,303
(2) LB&SS - AC	-	-	-	-	-	-
(3) Preferred Stock - AC	1	1	3,499,929	3,499,929	5,406,921	5,744,476
(4) Preferred Stock - FV	13	23	26,988,109	62,654,401	26,988,109	62,654,401
(5) Total (1+2+3+4)	59	60	\$ 166,077,850	\$ 168,320,964	\$ 155,288,103	\$ 164,882,180

AC - Amortized Cost

FV - Fair Value

- P. Short Sales – Not applicable.
- Q. Prepayment Penalties and Acceleration Fees – Not applicable
- R. Share of Cash Pool by Asset Type – Not applicable.

Note 6 - Joint Ventures, Partnerships and Limited Liability Companies

- A. The Company does not have any individual investments in joint ventures, partnerships or LLCs which exceed 10% of admitted assets for the years ended December 31, 2023 and December 2022.
- B. The accumulated unrealized losses are realized when they are not expected to be recovered. The Company recognized \$38,108 in 2023 and \$562,783 in 2022 in impairments on its investments in joint ventures, partnerships, and LLCs.

Note 7 - Investment Income

- A. Due and accrued income was excluded from surplus on the following bases:

All investment income due and accrued with amounts that are over 90 days past due with the exception of mortgage loans in default.
- B. The Company does not have any investment income due and accrued that is excluded from surplus.
- C. The gross, nonadmitted and admitted amounts for interest income due and accrued.

Interest Income Due and Accrued

1. Gross

2. Nonadmitted

3. Admitted

\$541,147,655

\$ -

\$541,147,655
- D. The aggregate deferred interest.

Aggregate Deferred Interest

\$ -
- E. The cumulative amounts of paid-in-kind (PIK) interest included in the current principal balance.

Cumulative amounts of PIK interest included in the current principal balance

\$23,073,820

NOTES TO FINANCIAL STATEMENTS

Note 8 - Derivative Instruments

The Company's derivative strategy employs a variety of derivative financial instruments, including options, interest rate and currency swaps, forward contracts and financial futures. Investment risk is assessed on a portfolio basis and individual derivative financial instruments are not generally designated in hedging relationships; therefore as allowed by statutory accounting practices, the Company intentionally has not applied hedge accounting.

The Company uses equity options purchased in either the over-the-counter market or on the Chicago Board Options Exchange as economic hedging transactions for financial accounting, regulatory and tax purposes for the associated liabilities of its indexed annuity products. Under the indexed annuity products, the crediting rate is linked to changes in the equity indices or Exchanged Traded Funds (ETF) for specified periods and participation rates. The prices of the options purchased are calculated with reference to the underlying index or ETF, participation rates, caps, floors, durations and notional amounts of the underlying contracts. The Company pays cash at the beginning of the contract and may pay or receive cash at expiration of the option as calculated in the option contract. The credit exposure is represented by the fair value of the contracts at the reporting date.

Effective January 1, 2022, the Company elected to apply OAC 3901-1-67 (Refer to Note 2) to the equity index call options hedging the fixed-indexed annuity ("FIA") products. Under OAC 3901-1-67, FIA options are carried at amortized cost. The settlement gains or losses are recorded through net investment income along with the amortization of the FIA options. The company recognized settlement gains on FIA options of \$511,677,067 and amortization expense of \$514,258,547 through net investment income during the period.

OAC 3901-1-67 was not elected for options hedging the registered indexed-linked annuity ("RILA") products. RILA options are carried at fair value. The settlement gains or losses are recorded through net realized capital gains or losses while the change in fair value is recognized as an unrealized gain or loss through surplus. The Company recognized an unrealized gain on RILA options of \$203,700,112 during the period.

The Company uses interest rate swaps to partially hedge the risk of a significant increase in interest rates on the fair value of the Company's investment portfolio. The credit exposure is represented by the fair value of the contracts at the reporting date. The Company recognized an unrealized gain of \$29,952,712 during the period on these swaps.

The Company uses currency swaps for the purpose of managing currency exchange risks in its assets and liabilities. The Company recognized an unrealized loss of \$34,950,170 during the period.

The Company utilizes certain other agreements including forward contracts and financial futures. Currency forwards are contracts in which the Company agrees with other parties to exchange specified amounts of identified currencies at a specific future date. Typically, the exchange rate is agreed upon at the time of the contract. The Company recognized an unrealized loss on currency forwards of \$2,567,218 during the period. The Company's futures contracts are exchange traded and have credit risk. Margin requirements are met with the deposit of securities. Futures contracts are generally settled with offsetting transactions. Forward contracts and financial futures are used by the Company to reduce exposures to various risks including interest rates and currency rates. The Company recognized an unrealized gain of \$20,973,705 on financial futures during the period.

Counterparties to financial instruments expose the Company to credit-related losses in the event of nonperformance. With most counterparties, the Company holds collateral to secure the performance by the counterparty. The Company does not expect any counterparties to fail to meet their obligations.

The Company has no derivative instruments with financing premiums.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

Note 9 - Income Taxes

On August 16th, 2022, the Inflation Reduction Act ("IRA") was signed into law and includes certain corporate income tax provisions. Impacts to the Company could include the imposition of a corporate alternative minimum tax ("CAMT") applicable to tax years beginning after December 31, 2022. The CAMT imposes a 15% minimum tax on adjusted financial statement income on applicable corporations that have an average group wide adjusted financial statement income over \$1 billion in the prior three-year period (2020-2022). As of the reporting date, the Company has determined that it is not an applicable corporation and therefore not liable for CAMT in 2023. The United States Treasury Secretary and the IRS have been authorized to issue further guidance and intend to publish proposed regulations in 2024.

A. Deferred Tax Assets and Deferred Tax Liabilities

1. The components of the net deferred tax asset/(liability) at December 31 are as follows:

	2023			2022			Change		
	Ordinary	Capital	Total	Ordinary	Capital	Total	Ordinary	Capital	Total
a. Gross deferred tax assets	\$ 363,273,271	\$ 75,518,486	\$ 438,791,757	\$ 187,418,721	\$ -	\$ 187,418,721	\$175,854,550	\$ 75,518,486	\$251,373,036
b. Statutory valuation allowance adjustment	-	-	-	-	-	-	-	-	-
c. Adjusted gross deferred tax assets	363,273,271	75,518,486	438,791,757	187,418,721	-	187,418,721	175,854,550	75,518,486	251,373,036
d. Deferred tax assets nonadmitted	36,129,764	-	36,129,764	73,566,963	(71,340,460)	2,226,503	(37,437,199)	71,340,460	33,903,261
e. Subtotal net admitted deferred tax asset	327,143,507	75,518,486	402,661,993	113,851,758	71,340,460	185,192,218	213,291,749	4,178,026	217,469,775
f. Deferred tax liabilities	114,314,200	24,085,931	138,400,131	41,645,944	71,340,460	112,986,404	72,668,256	(47,254,529)	25,413,727
g. Net admitted deferred tax assets/(net deferred tax liability)	\$ 212,829,307	\$ 51,432,555	\$ 264,261,862	\$ 72,205,814	\$ -	\$ 72,205,814	\$140,623,493	\$ 51,432,555	\$192,056,048

2. Admission calculation components, SSAP No. 101:

	2023			2022			Change		
	Ordinary	Capital	Total	Ordinary	Capital	Total	Ordinary	Capital	Total
a. Federal income taxes paid in prior years recoverable through loss carrybacks	\$ -	\$ 42,279,584	\$ 42,279,584	\$ -	\$ -	\$ -	\$ -	\$ 42,279,584	\$ 42,279,584
b. Adjusted gross deferred tax assets expected to be realized (excluding the amount of deferred tax assets from 2(a) above) after application of the threshold limitation. (The lesser of 2(b)1 and 2(b)2 below)	212,829,307	9,152,971	221,982,278	72,205,814	-	72,205,814	140,623,493	9,152,971	149,776,464
1. Adjusted gross deferred tax assets expected to be realized following the balance sheet date	212,829,307	9,152,971	221,982,278	72,205,814	-	72,205,814	140,623,493	9,152,971	149,776,464
2. Adjusted gross deferred tax assets allowed per limitation threshold	XXX	XXX	423,029,061	XXX	XXX	415,619,723	XXX	XXX	7,409,337
c. Adjusted gross deferred tax assets (excluding the amount of deferred tax assets from 2(a) and 2(b) above) offset by gross deferred tax liabilities	114,314,200	24,085,931	138,400,131	41,645,944	71,340,460	112,986,404	72,668,256	(47,254,529)	25,413,727
d. Deferred tax assets admitted as the result of application of SSAP No. 101	\$ 327,143,507	\$ 75,518,486	\$ 402,661,993	\$ 113,851,758	\$ 71,340,460	\$ 185,192,218	\$ 213,291,749	\$ 4,178,026	\$ 217,469,775

3. Other admissibility criteria:

	2023	2022
a. Ratio percentage used to determine recovery period and threshold limitation amount	839%	871%
b. Amount of adjusted capital and surplus used to determine recovery period and threshold limitation in 2(b)2 above	\$ 2,820,193,738	\$ 2,770,798,155

4. Impact of tax planning strategies:

	2023		2022		Change	
	Ordinary	Capital	Ordinary	Capital	Ordinary	Capital
a. Determination of adjusted gross deferred tax assets and net admitted deferred tax assets, by tax character as a percentage						
1. Adjusted gross DTAs amount from Note 9A1(c)	\$ 363,273,271	\$ 75,518,486	\$ 187,418,721	\$ -	\$ 175,854,550	\$ 75,518,486
2. Percentage of adjusted gross DTAs by tax character attributable to the impact of tax planning strategies	0%	0%	0%	0%	0%	0%
3. Net admitted adjusted gross DTAs amount from Note 9A1(e)	327,143,507	75,518,486	113,851,758	71,340,460	213,291,749	4,178,026
4. Percentage of net admitted adjusted gross DTAs by tax character admitted because of the impact of tax planning strategies	4%	0%	0%	0%	4%	0%
b. Does the company's tax planning strategies include the use of reinsurance? Yes [] No [X]						

B. The Company has recognized all of its deferred tax liabilities.

NOTES TO FINANCIAL STATEMENTS

C. Current income taxes incurred consist of the following major components:

(1) Current income tax expense:

	2023	2022	Change
a. Federal	\$241,842,450	\$ 13,600,685	\$ 228,241,765
b. Foreign	30,334	2,794	27,540
c. Subtotal	241,872,784	13,603,479	228,269,305
d. Federal income tax (benefit) expense on net capital gains	(23,215,523)	(14,295,851)	(8,919,672)
e. Utilization of capital loss carry-forwards	-	-	-
f. Other	-	-	-
g. Federal and foreign income taxes incurred	<u>\$218,657,261</u>	<u>\$ (692,372)</u>	<u>\$ 219,349,633</u>

(2) Deferred tax assets:

	2023	2022	Change
a. Ordinary			
1 Discounting of unpaid losses	\$ -	\$ -	\$ -
2 Unearned premium reserve	-	-	-
3 Policyholder reserve	168,143,401	112,698,436	55,444,965
4 Investments	106,101,563	-	106,101,563
5 Deferred acquisition costs	77,564,558	61,621,231	15,943,327
6 Policyholder dividends accrual	-	-	-
7 Fixed assets	56,870	-	56,870
8 Compensation and benefits accrual	-	-	-
9 Pension accrual	204,878	217,028	(12,150)
10 Receivables - nonadmitted	3,900,811	6,232,003	(2,331,192)
11 Net operating loss carry-forward	-	-	-
12 Tax credit carry-forward	-	-	-
13 Other	1,452,881	2,084,813	(631,932)
14 Accruals	5,848,309	4,565,210	1,283,099
15 Amortization of intangibles	-	-	-
16 Underwriting expenses	-	-	-
99 Subtotal	<u>\$363,273,271</u>	<u>\$187,418,721</u>	<u>\$ 175,854,550</u>
b. Statutory valuation allowance adjustment	-	-	-
c. Nonadmitted	<u>36,129,764</u>	<u>73,566,963</u>	<u>(37,437,199)</u>
d. Admitted ordinary deferred tax assets	<u>\$327,143,507</u>	<u>\$113,851,758</u>	<u>\$ 213,291,749</u>
e. Capital			
1 Investments	\$ 75,518,486	\$ -	\$ 75,518,486
2 Net capital loss carry-forward	-	-	-
3 Real estate	-	-	-
4 Other	-	-	-
5 Non-insurance subsidiaries	-	-	-
99 Subtotal	<u>\$ 75,518,486</u>	<u>\$ -</u>	<u>\$ 75,518,486</u>
f. Statutory valuation allowance adjustment	-	-	-
g. Nonadmitted	-	<u>(71,340,460)</u>	<u>71,340,460</u>
h. Admitted capital deferred tax assets	<u>\$ 75,518,486</u>	<u>\$ 71,340,460</u>	<u>\$ 4,178,026</u>
i. Admitted deferred tax assets	<u>\$402,661,993</u>	<u>\$185,192,218</u>	<u>\$ 217,469,775</u>

(3) Deferred tax liabilities:

	2023	2022	Change
a. Ordinary			
1 Investments	\$ 70,280,258	\$ 1,015,796	\$ 69,264,462
2 Fixed assets	-	902,671	(902,671)
3 Deferred and uncollected premium	-	2,079,689	(2,079,689)
4 Policyholder reserves	21,720,738	3,869,176	17,851,562
5 Other	30,509	439,162	(408,653)
6 Policy loans	233,306	265,367	(32,061)
7 Other - Reserve transition adjustment	22,049,389	33,074,083	(11,024,694)
99 Subtotal	<u>\$114,314,200</u>	<u>\$ 41,645,944</u>	<u>\$ 72,668,256</u>
b. Capital			
1 Investments	\$ 24,085,931	\$ 71,340,460	\$ (47,254,529)
2 Real estate	-	-	-
3 Other	-	-	-
99 Subtotal	<u>\$ 24,085,931</u>	<u>\$ 71,340,460</u>	<u>\$ (47,254,529)</u>
c. Deferred tax liabilities	<u>\$138,400,131</u>	<u>\$112,986,404</u>	<u>\$ 25,413,727</u>

(4) Net deferred tax assets/(liabilities)	<u>\$264,261,862</u>	<u>\$ 72,205,814</u>	<u>\$ 192,056,048</u>
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ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

D. The provision for federal income taxes incurred on operations is different from that which would be obtained by applying the statutory federal income tax rate to income before income taxes. The significant items causing this difference are as follows:

	12-2023	12-2022
Provision computed at federal statutory rate	\$ (24,460,848)	\$ 40,254,415
Reinsurance items	11,657,590	54,946,270
OAC 3901-1-67 adoption	-	(46,220,408)
Investment items	(5,702,478)	(10,404,565)
Nonadmitted assets	2,331,192	(3,571,589)
Tax credits	(27,758)	(117,666)
Sec 481 - change in accounting method	25,200,000	-
Other	(2,472)	(2,458,627)
Total statutory income tax expense (benefit)	\$ 8,995,226	\$ 32,427,830
Federal and foreign income tax expense (benefit)	\$ 218,657,261	\$ (692,372)
Change in net deferred income taxes	(209,662,035)	33,120,202
Total statutory income tax expense (benefit)	\$ 8,995,226	\$ 32,427,830

- E. (1) The Company does not have any operating loss carry-forwards or capital loss carry-forwards available to offset future net income subject to federal income taxes.
- (2) The following are income taxes on operations and realized gains incurred in the current and prior years that will be available for recoupment in the event of future net losses:

Period	Ordinary	Capital	Total
2023	\$ -	\$ -	\$ -
2022	\$ -	\$ 13,416,838	\$ 13,416,838
2021	\$ -	\$ 28,862,746	\$ 28,862,746

- (3) The Company had no deposits to disclose under Section 6603 of the Internal Revenue Service Code.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

- F. The Company's federal income tax return is consolidated.
- (1) The Company's federal income tax return is consolidated with the following entities:
- AAG Insurance Agency, LLC
Annuity Investors Life Insurance Company
MM Ascend Life Investor Services, LLC
MassMutual Ascend Life Insurance Company
Manhattan National Holding, LLC
Manhattan National Life Insurance Company
- (2) Beginning in June of 2021, MMALIC and its subsidiaries entered into a separate intercompany tax allocation agreement (the Tax Agreement). The Tax Agreement sets forth the manner in which the total combined federal income is allocated among the subsidiaries. The Tax Agreement provides MMALIC with the enforceable right to recoup federal income taxes paid in prior years in the event of future net capital losses, which it may incur. Further, the Tax Agreement provides MMALIC with the enforceable right to utilize its net losses carried forward as an offset to future net income subject to federal income taxes. Estimated payments are made quarterly during the year. Following year-end, additional settlements are made on the original due date of the return and, when extended, at the time the return is filed. In accordance with the tax allocation agreement, any future corporate alternative minimum tax (CAMT) is outside of the scope of the general tax allocation method and, consequently any future CAMT liability of a subsidiary shall be allocated solely to MM Ascend, the common parent of the Group.
- G. Federal or Foreign Income Tax Loss Contingencies
- The Company does not have any tax loss contingencies.
- H. Repatriation Transition Tax (RTT) – Not applicable.
- I. Alternative Minimum Tax (AMT) Credit – Not applicable.

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 paid ordinary dividends to its parent of \$200,000,000 on December 28, 2023.
- The Company did not receive capital contributions during the period.
- D. As of December 31, 2023, the Company reported \$719,602 due from and \$771,693 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 \$16,809,990, 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
- (1) Balance Sheet (Admitted and Nonadmitted) All SCAs (Except 8bi Entities)

SCA Entity	Percentage of SCA Ownership	Gross Amount	Admitted Amount	Nonadmitted amount
a. SSAP No. 97 8a Entities				
Total SSAP No. 97 8a Entities	XXX	\$ -	\$ -	\$ -
b. SSAP No. 97 8b(ii) Entities				
Manhattan National Holding, LLC	100%	\$ 16,809,990	\$ 16,809,990	\$ -
Total SSAP No. 97 8b(ii) Entities	XXX	\$ 16,809,990	\$ 16,809,990	\$ -
c. SSAP No. 97 8b(iii) entities				
MM Ascend Life Investor Services, LLC	100%	\$ 893,047	\$ 893,047	\$ -
Total SSAP No. 97 8b(iii) Entities	XXX	\$ 893,047	\$ 893,047	\$ -
d. SSAP No. 97 8b(iv) Entities				
Total SSAP No. 97 8b(iv) Entities	XXX	\$ -	\$ -	\$ -
e. Total SSAP No. 97 8b Entities (except 8bi entities) (b+c+d)	XXX	\$ 17,703,037	\$ 17,703,037	\$ -
f. Aggregate Total (a+e)	XXX	\$ 17,703,037	\$ 17,703,037	\$ -

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

(2) NAIC Filing Response Information

SCA Entity	Type of NAIC Filing *	Date of Filing to the NAIC	NAIC Valuation Amount	NAIC Response Received Y/N	NAIC Disallowed Entities Valuation Method, Resubmission Required Y/N	Code **
a. SSAP No. 97 8a Entities						
Total SSAP No. 97 8a Entities	XXX	XXX	-	XXX	XXX	XXX
b. SSAP No. 97 8b(ii) Entities						
Manhattan National Holding, LLC	S2	6/30/2023	\$ 16,146,282	Y	N	I
Total SSAP No. 97 8b(ii) Entities	XXX	XXX	\$ 16,146,282	XXX	XXX	XXX
c. SSAP No. 97 8b(iii) entities						
MMAscend Life Investor Services, LLC	S2	9/19/2023	\$ 1,002,782	Y	N	I
Total SSAP No. 97 8b(iii) Entities	XXX	XXX	\$ 1,002,782	XXX	XXX	XXX
d. SSAP No. 97 8b(iv) Entities						
Total SSAP No. 97 8b(iv) Entities	XXX	XXX	\$ -	XXX	XXX	XXX
e. Total SSAP No. 97 8b Entities (except 8bi entities) (b+c+d)	XXX	XXX	\$ 17,149,064	XXX	XXX	XXX
f. Aggregate Total (a+e)	XXX	XXX	\$ 17,149,064	XXX	XXX	XXX

* S1 - Sub-1, S2 - Sub-2 or RDF - Resubmission of Disallow ed Filing
** I - Immaterial or M - Material

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 outstanding debt instruments.
- 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 and \$48,262,300 of FHLB stock at December 31, 2023 and December 31, 2022, respectively. The Company also posted collateral to the FHLB of assets with a fair value of approximately \$1,204,088,926 as of December 31, 2023. 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 December 31, 2023 and December 31, 2022. The Company held 215,252 and 282,623 shares of activity and excess stock at December 31, 2023 and December 31, 2022, respectively.

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 December 31, 2023 was \$1,204,088,926 (fair value) and \$1,279,160,145 (carrying value). The total aggregate borrowing from the FHLB at December 31, 2023 was \$500,000,000.

b. The maximum amount of collateral pledged to the FHLB during the period was \$1,348,965,485 (fair value) and \$1,424,061,225 (carrying value) at March 31, 2023. 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.

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

- A., B., C. & D.

The Company does 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 \$58,683,564 as of December 31, 2023 and \$37,437,537 as of December 31, 2022. 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 \$4,458,732 for the twelve months ended December 31, 2023 and \$3,968,648 for the year ended December 31, 2022.
- F. The Company does 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.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

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

- A. The Company's capital is common stock. There are 1,200,000 shares authorized and 201,000 shares issued and outstanding, with a per share par value of \$7.50. There are no other classes of capital stock.
- B. The Company has no preferred stock outstanding.
- C. The maximum amount of dividends which can be paid to stockholders by life insurance companies domiciled in the State of Ohio without prior approval of the Insurance Commissioner is the greater of 10% of surplus as regards policyholders or net income as of the preceding December 31, but only to the extent of earned surplus as of the preceding December 31. The maximum amount of dividends payable in 2024 without prior approval is \$308,294,810 based on 10% of surplus as regards to policy holders as of the preceding December 31. At December 31, 2023, surplus as regards policyholders was \$3,082,948,100, earned surplus was \$1,996,235,405, and net income was \$19,255,505.
- D. The Company paid ordinary dividends to its parent of \$200,000,000 on December 28, 2023.
- E. Within the limitations of (C) above, there are no restrictions placed on the portion of Company profits that may be paid as ordinary dividends to stockholders.
- F. The Company has placed no restrictions on unassigned surplus funds.
- G. The total amount of advances to surplus not repaid is \$0. The Company is not organized as a mutual insurer or similar entity.
- H. The amounts of stock held by the Company, including stock of affiliated companies, for special purposes are:

i. a.

ii. b.

iii. c.

For conversion of preferred stock:

For employee stock options:

For stock purchase warrants:

0 shares

0 shares

0 shares
- I. The Company has \$271,533,895 in special surplus funds, which consists of admitted disallowed interest maintenance reserve at December 31, 2023.
- J. The portion of unassigned funds (surplus) represented or reduced by each item below is as follows:

a. Unrealized gains and losses (excluding subsidiaries):

b. Nonadmitted asset values:

c. Separate account business:

d. Asset valuation reserves:

e. Provision for reinsurance:

\$

\$

\$

\$

\$

339,461,982

(54,705,054)

-

(528,429,311)

-
- K. The Company has not issued any surplus debentures or similar obligations.
- L. & M. There has been no restatement of surplus due to quasi-reorganization.

Note 14 - Contingencies

A. Contingent Commitments

(1) Loan and Capital Commitments

As of December 31, 2023, the Company had the following commitments:

	2024	2025	2026	2027	2028	Thereafter	Total
Private Placements	\$ 165,468,085	\$ 224,607,975	\$ 262,434,714	\$ 73,742,473	\$ 33,419,074	\$ 157,146,089	\$ 916,818,410
Mortgage Loans	191,970,030	123,553,926	305,875,929	36,899,780			658,299,665
Real Estate		5,954,619	1,199,825				7,154,444
Partnerships and LLC	27,845,730	10,779,236	38,874,610	13,257,867	19,763,546	160,191,100	270,712,090
Total	<u>\$ 385,283,845</u>	<u>\$ 364,895,756</u>	<u>\$ 608,385,077</u>	<u>\$ 123,900,120</u>	<u>\$ 53,182,620</u>	<u>\$ 317,337,189</u>	<u>\$ 1,852,984,609</u>

(2) The Company has no guarantees to report.

(3) The Company has no guarantee obligations to report.

- B. The Company holds a guaranty fund assessment liability for future assessments of \$966,087. The Company also holds a premium tax offset asset related to guaranty fund assessments paid or accrued.
- C. The Company has no gain contingencies to report.
- D. The Company is not aware of any claims related to extra contractual obligations and bad faith losses stemming from lawsuits.
- E. The Company has no joint and several liabilities.
- F. The Company is not aware of any other material loss contingencies as of the Balance Sheet date, or any date subsequent up to the filing of this statement.

Note 15 - Leases

A.

- (1) As of December 31, 2023, the Company has leases for office space in the Rosa Parks Building and 312 Elm Street in Cincinnati, OH.

Rental expense for Rosa Parks Building and 312 Elm Street for 2023 was \$1,606,780 and \$44,551, respectively. Rental expense for Dixie Terminal building and Great American Tower in 2022 was \$4,784,000 and \$792,000, respectively. The lease related Dixie Terminal building and Great American Tower was terminated effective 11/28/2022.

- a. There are no contingent rental payments for these leases.
- b. There are no renewal or purchase options or escalation clauses for these leases.
- c. There are no restrictions imposed by these lease agreements such as those concerning dividends, additional debt, and further leasing.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

d. There are no lease agreements that have been terminated early or for which the Company is no longer using the leased property benefits.

(2) At December 31, 2023, the minimum aggregate rental commitments are as follows:

	Years	Operating Leases
1.	2024	\$ 1,782,224
2.	2025	1,815,113
3.	2026	1,845,894
4.	2027	1,883,035
5.	2028	1,874,478
6.	Thereafter	5,336,541
7.	Total	<u>\$ 14,537,284</u>

(3) Not applicable.

B. Not applicable.

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

The Company does not have financial instruments with off-balance sheet risk or financial instruments with concentrations of credit risk, except as described in Note 8 – Derivative Instruments.

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

The Company had no reportable transactions during the period.

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.

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 or net asset value (“NAV”) 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	\$ -	\$ 60	\$ -	\$ -	\$ 60
Industrial and misc. (unaffiliated)	-	8,005,409	6,318,702	-	14,324,111
Total bonds	\$ -	\$ 8,005,469	\$ 6,318,702	\$ -	\$ 14,324,171
Non-affiliated preferred stock	\$ 45,158,611	\$ 16,356,000	\$ 67,752,802	\$ -	\$ 129,267,413
Non-affiliated common stock	112,966,926	-	158,241,133	-	271,208,059
Currency forw ards	-	49,154	-	-	49,154
Interest rate sw aps	-	26,576,403	-	-	26,576,403
Financial futures	20,973,708	-	-	-	20,973,708
Separate account assets	5,223,448	438,096,119	-	-	443,319,567
Total assets at fair value	<u>\$ 184,322,693</u>	<u>\$ 489,083,145</u>	<u>\$ 232,312,637</u>	<u>\$ -</u>	<u>\$ 905,718,475</u>
Liabilities at fair value					
Currency sw aps	\$ -	\$ 38,811,239	\$ -	\$ -	\$ 38,811,239
Currency forw ards	-	5,022,028	-	-	5,022,028
Interest rate sw aps	-	66,266,629	-	-	66,266,629
Separate account liabilities	5,223,448	438,096,119	-	-	443,319,567
Total liabilities at fair value	<u>\$ 5,223,448</u>	<u>\$ 548,196,015</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 553,419,463</u>

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

	Beginning Balance at 12/31/2022	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	Sales	Settlements	Other Adjustments	Ending Balance at 12/31/2023
Bonds: industrial and misc (unaffiliated)	\$ 12,679,423	\$ -	\$ -	\$ 2,703,073	\$ (6,810,954)	\$ 862,525	\$ -	\$ -	\$ (14,841)	\$ (3,100,524)	\$ 6,318,702
Non-affiliated preferred stock	127,327,521	-	-	-	(10,929,588)	-	884,902	-	(442,451)	(49,087,582)	67,752,802
Non-affiliated common stock	140,349,829	104	-	6,151,833	(15,908,014)	13,165	-	(346,776)	(40,691,024)	68,672,016	158,241,133
Total	<u>\$ 280,356,773</u>	<u>\$ 104</u>	<u>\$ -</u>	<u>\$ 8,854,906</u>	<u>\$ (33,648,556)</u>	<u>\$ 875,690</u>	<u>\$ 884,902</u>	<u>\$ (346,776)</u>	<u>\$ (41,148,316)</u>	<u>\$ 16,483,910</u>	<u>\$ 232,312,637</u>

(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.

NOTES TO FINANCIAL STATEMENTS

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, an affiliate, 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.
- 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	\$ 156,703,346	\$ 186,668,132	\$ -	\$ 156,703,346	\$ -	\$ -	\$ -
All other government	18,173,907	19,151,769	-	18,173,907	-	-	-
States, territories and possessions	175,454,509	180,322,277	-	175,454,509	-	-	-
Political subdivisions of states, territories	228,621,222	231,433,801	-	228,621,222	-	-	-
Special revenue	1,799,661,690	1,920,292,924	-	1,784,376,403	15,285,287	-	-
Industrial and misc. (unaffiliated)	29,800,650,246	31,679,294,144	-	21,905,041,055	7,895,609,191	-	-
Parent, subs and affiliates	722,050,719	745,023,952	-	583,210,830	138,839,889	-	-
Total bonds	\$ 32,901,315,639	\$ 34,962,186,999	\$ -	\$ 24,851,581,272	\$ 8,049,734,367	\$ -	\$ -
Non affiliated preferred stock	217,884,652	201,026,229	89,843,058	16,356,000	111,685,594	-	-
Non affiliated common stock	271,208,059	271,208,059	112,966,926	-	158,241,133	-	-
Mortgage loans	4,053,230,199	4,256,509,561	-	-	4,053,230,199	-	-
Currency forwards	49,154	49,154	-	49,154	-	-	-
Fixed-indexed annuity options	822,926,381	739,091,255	317,918,678	505,007,703	-	-	-
Interest rate sw aps	26,576,403	26,576,403	-	26,576,403	-	-	-
Financial futures	20,973,708	20,973,708	-	20,973,708	-	-	-
Separate account assets	443,319,567	443,319,567	5,223,448	438,096,119	-	-	-
Cash, cash equivalents and short-term investments	2,211,326,604	2,211,326,604	2,211,326,604	-	-	-	-
Policy loans	29,952,551	29,952,551	-	-	29,952,551	-	-
Total financial assets	40,998,762,917	43,162,220,090	2,737,278,714	\$ 25,858,640,359	\$ 12,402,843,844	\$ -	\$ -
Financial liabilities:							
Currency sw aps	\$ 38,811,239	\$ 38,811,239	\$ -	\$ 38,811,239	\$ -	\$ -	\$ -
Currency forwards	5,022,028	5,022,028	-	5,022,028	-	-	-
Interest rate sw aps	66,266,629	66,266,629	-	66,266,629	-	-	-
Fixed-indexed annuity options	-	418,121,702	-	-	-	-	-
Separate account liabilities	443,319,567	443,319,567	5,223,448	438,096,119	-	-	-
Total financial liabilities	\$ 553,419,463	\$ 971,541,165	\$ 5,223,448	\$ 548,196,015	\$ -	\$ -	\$ -

- 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. On February 17, 2022, the Company entered into a Funds Withheld Coinsurance agreement effective February 1, 2022, with Martello Re Limited ("Martello Re"), a Bermuda-domiciled Class E life and annuity reinsurer launched in 2022. The Company ceded statutory reserves of \$14.2 billion on a closed block of fixed, fixed indexed and payout annuity policies, in exchange for a \$320 million ceding commission paid by Martello Re. Under this agreement, the Company ceded approximately \$10.0 billion of annuity reserves at December 31, 2023.

The Company entered into a quota share indemnity reinsurance agreement on fixed-indexed annuity ("FIA") policies with Hannover Life Reassurance Company of America ("HLR") effective December 31, 2018. Effective January 1, 2022 the Company has recaptured the FIA policies ceded to HLR in the agreement that became effective on December 31, 2018. The financial impact of the reinsurance recapture is a decrease to statutory capital of \$140.6 million.

- B. The Company had no troubled debt restructuring.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

C. Other Disclosures:

The table below shows the impact of reinsurance agreements on net premium and annuity considerations:

	12/31/2023	12/31/2022
Direct premiums and annuity considerations	\$ 8,775,756,905	\$ 7,379,844,074
Assumed reinsurance	6,632,601	6,701,743
Ceded reinsurance excluding flow and block	(14,864,107)	(20,069,403)
Flow reinsurance ceded	(218,737,731)	(426,081,845)
Subtotal	8,548,787,668	6,940,394,569
Block reinsurance ceded	(7,877,892)	(25,216,167)
Martello Reinsurance	(34,139,008)	(14,113,436,354)
Net premium and annuity considerations (Page 4, Line 1)	\$ 8,506,770,768	\$ (7,198,257,952)

Admitted disallowed Interest Maintenance Reserve (“IMR”):

As of December 31, 2023, the Company had \$271,533,895 of net negative (disallowed) IMR in aggregate and in the general account.

As of December 31, 2023, the Company had \$271,533,895 of negative IMR admitted in the general account.

As of December 31, 2023, the calculated adjusted general capital and surplus was \$2,812,242,534.

As of December 31, 2023, the percentage of adjusted general capital and surplus for which the admitted disallowed IMR represents was 10%.

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

	December 31, 2023
Realized capital gains	4,428,148
Realized capital losses	(1,080,018)
Total allocated gains (losses) to IMR from derivatives	\$ 3,348,130

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.

D. The Company has no business interruption insurance recoveries.

E. The Company has no state transferable or non-transferable tax credits.

F. Subprime Mortgage Related Risk Exposure

(1) Included in determining the Company’s exposure to subprime mortgage loans are the debt and equity securities of companies whose principal business includes the origination, securitization, providing of mortgage insurance on, investment in or management of subprime mortgage loans. Also included in such determination are those residential MBS and collateral debt obligations in which the ultimate collateral supporting anticipated cash flows are subprime mortgage loans. In general, we limit the Company’s purchases of subprime residential MBS to those securities with AAA ratings and whose underlying collateral is fixed-rate (as opposed to adjustable rate).

(2) The Company does not have any investments with direct exposure in subprime mortgage loans.

(3) Direct exposure to subprime mortgage risk through other investments in the following securities:

	Actual Cost	Book/Adjusted Carrying Value (excluding interest)	Fair Value	Other Than Temporary Impairment Losses Recognized
a. Residential MBS	\$ 1,184,950,928	\$ 1,184,636,728	\$ 1,083,891,339	\$ 1,456,993
b. Commercial MBS	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs	-	-	-	-
f. Other assets	-	-	-	-
g. Total	\$ 1,184,950,928	\$ 1,184,636,728	\$ 1,083,891,339	\$ 1,456,993

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

G. The Company does not have retained asset accounts.

H. The Company is not an issuer, ceding issuer, or counterparty of insurance-linked securities.

I. The Amount That Could Be Realized on Life Insurance Where the Reporting Entity is Owner and Beneficiary or Has Otherwise Obtained Rights to Control the Policy

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

The following table shows the amount of the aggregate cash surrender value that is within investment vehicles and percentage by the following investment category:

(1) Amount of admitted balance that could be realized from an investment vehicle	\$ 223,142,978
(2) Percentage Bonds	65.0%
(3) Percentage Stocks	1.0%
(4) Percentage Mortgage Loans	16.1%
(5) Percentage Real Estate	0.9%
(6) Percentage Cash and Short-Term Investments	2.3%
(7) Percentage Derivatives	0.7%
(8) Percentage Other Invested Assets	14.0%

Note 22 - Events Subsequent

Management has evaluated all events occurring after December 31, 2023, through the date the financials statements were available to be issued, to determine whether any event required either recognition or disclosure in the financial statements. There have been no subsequent events that have a material financial effect on the Company.

Note 23 - Reinsurance

A. Ceded Reinsurance Report

Section 1 – General Interrogatories

- (1) Are any of the reinsurers, listed in Schedule S as non-affiliated, owned in excess of 10% or controlled, either directly or indirectly, by the Company or by any representative, officer, trustee, or director of the Company?
Yes () No (x) If yes, give full details
- (2) Have any policies issued by the Company been reinsured with a company chartered in a country other than the United States (excluding U.S. Branches of such companies) that is owned in excess of 10% or controlled directly or indirectly by an insured, a beneficiary, a creditor or any other person not primarily engaged in the insurance business?
Yes () No (x) If yes, give full details

Section 2 – Ceded Reinsurance Report – Part A

- (1) Does the Company have any reinsurance agreements in effect under which the reinsurer may unilaterally cancel any reinsurance for reasons other than for nonpayment of premium or other similar credits?
Yes () No (x)

a. If yes, what is the estimated amount of the aggregate reduction in surplus of a unilateral cancellation by the reinsurer as of the date of this statement, for those agreements in which cancellation results in a net obligation of the Company to the reinsurer, and for which such obligation is not presently accrued? Where necessary, the Company may consider the current or anticipated experience of the business reinsured in making this estimate. \$0

b. What is the total amount of reinsurance credits taken, whether as an asset or as a reduction of liability, for these agreements in this statement? \$0
- (2) Does the Company have any reinsurance agreements in effect such that the amount of losses paid or accrued through the statement date may result in a payment to the reinsurer of amounts that, in aggregate and allowing for offset of mutual credits from other reinsurance agreements with the same reinsurer, exceed the total direct premium collected under the reinsured policies?
Yes () No (x) If yes, give full details

Section 3 – Ceded Reinsurance Report – Part B

- (1) If all reinsurance agreements were terminated by either party as of December 31,2023, the resulting reduction in surplus due to loss of reinsurance reserve credits net of unearned premium would be \$756,711,705, assuming no return of the assets (excluding assets in trust) backing these reserves from the reinsurer to the Company.
- (2) Have any new agreements been executed, or existing agreements amended, since January 1 of the year of this statement, to include policies or contracts that were in force or which had existing reserves established by the Company as of the effective date of the agreement?
Yes () No (x)

If yes, what is the amount of reinsurance credits, whether an asset or a reduction of liability, taken for such new agreements or amendments?

N/A

B. Uncollectible Reinsurance

The Company wrote off reinsurance claim recoverables of \$3,026,900 due from Scottish Re (US) as a result of the Liquidation Order that terminated all reinsurance agreements with Scottish Re (US) effective September 30, 2023.

C. Commutation of Ceded Reinsurance

The Company was not involved in any commutation of ceded reinsurance.

D. Certified Reinsurer Rating Downgraded or Status Subject to Revocation

The Company had no reinsurance contracts with certified reinsurers.

E., F. & G.

The Company has no captive reinsurance agreements.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

H. Reinsurance Credit

- (1)

The Company had no reinsurance contracts subject to A-791 that includes a provision which limits the reinsurer’s assumption of significant risks identified as A-791.
- (2)

The Company had no reinsurance contracts not subject to A-791, for which reinsurance accounting was applied and includes a provision that limits the reinsurer’s assumption of risk.
- (3)

The Company had no reinsurance contracts which result in delays in payment.
- (4)

The Company had no reinsurance accounting credit for any contracts not subject to Appendix A-791 and not yearly renewable term, which meet the risk transfer requirements of SSAP No. 61R.
- (5)

All of the Company’s ceded annuity risk which is not subject to A-791 during the period covered by the financial statement is accounted for as reinsurance under statutory accounting principles and as deposits under GAAP (refer to Schedule S Part 3, Section 1 for more detail).
- (6)

The contracts in paragraph 23-H-5 are treated differently because annuities are not considered insurance contracts for GAAP.

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. See Schedule H and Five Year Historical Data. 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.

Note 26 - Intercompany Pooling Arrangements

Not applicable.

Note 27 - Structured Settlements

Not applicable.

Note 28 - Health Care Receivables

Not applicable.

Note 29 - Participating Policies

- A.

Participating policies represent less than 1% of the Company’s total life insurance in force.
- B.

Policyholder dividends are recognized on the policy anniversary.
- C.

Dividends to policyholders in 2023 were \$8,940.
- D.

There are no other amounts of additional income allocated to participating policyholders.

Note 30 - Premium Deficiency Reserves

The following table shows the amount of premium deficiency reserves on the MMALIC Balance sheet as of 12/31/23:

(1) Liability carried for premium deficiency reserves	\$ 309,281
(2) Date of the most recent evaluation of this liability	12/31/2023

- (3)

Was anticipated investment income utilized in the calculation?

☒ Yes

☐ No

Note 31 - Reserves for Life Contracts and Annuity Contracts

- (1)

The Company waives deduction of deferred fractional premiums upon death of insured and returns any portion of the final premium beyond the date of death. Surrender values are not promised in excess of the legally computed reserves.
- (2)

Reserves for substandard policies are equal to the standard reserve for the particular plan, age and duration plus 50% of the extra premium charged for the year.
- (3)

The Company had \$13,932,200 of insurance in force for which the gross premiums are less than the net premiums according to the required valuation standard. Reserves to cover the above insurance are reported in Exhibit 5, Miscellaneous Reserves.
- (4)

The tabular interest has been determined by the formula as described in the instructions. The tabular less actual reserve released has been determined by the formula as described in the instructions. The tabular cost has been determined by the formula as described in the instructions.
- (5)

Tabular interest on funds not involving life contingencies is calculated as the product of such valuation rate of interest times the mean of the amount of funds subject to such valuation rate of interest held at the beginning and end of the year of valuation.
- (6)

The Company has no reserve changes not captured elsewhere.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

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

Withdrawal Characteristics of Annuity Actuarial Reserves and Deposit – Type Contract Funds and Other Liabilities Without Life or Disability Contingencies

A. INDIVIDUAL ANNUITIES:

	General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
1. Subject to discretionary withdrawal:					
a. With market value adjustment	\$ 22,517,317,701	\$ -	\$ -	\$ 22,517,317,701	51.6%
b. At book value less current surrender charge of 5% or more	5,279,474,804	-	-	5,279,474,804	12.1%
c. At fair value	-	-	387,451,687	387,451,687	0.9%
d. Total with market value adjustment or at fair value (total of a through c)	27,796,792,505	-	387,451,687	28,184,244,192	64.6%
e. At book value without adjustment (minimal or no charge or adjustment)	13,422,514,955	-	-	13,422,514,955	30.7%
2. Not subject to discretionary withdrawal	2,063,485,360	-	-	2,063,485,360	4.7%
3. Total (gross: direct + assumed)	43,282,792,820	-	387,451,687	43,670,244,507	100.0%
4. Reinsurance ceded	14,472,506,727	-	-	14,472,506,727	
5. Total (net) (3) - (4)	\$ 28,810,286,093	\$ -	\$ 387,451,687	\$ 29,197,737,780	
6. Amount included in A(1)b above that will move to A(1)e in the year after the statement date	\$ 970,176,527	\$ -	\$ -	\$ -	

B. GROUP ANNUITIES:

	General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
1. Subject to discretionary withdrawal:					
a. With market value adjustment	\$ -	\$ -	\$ -	\$ -	0.0%
b. At book value less current surrender charge of 5% or more	116,030,450	-	-	116,030,450	6.8%
c. At fair value	-	-	-	-	0.0%
d. Total with market value adjustment or at fair value (total of a through c)	116,030,450	-	-	116,030,450	6.8%
e. At book value without adjustment (minimal or no charge or adjustment)	686,275,533	-	-	686,275,533	40.4%
2. Not subject to discretionary withdrawal	898,084,148	-	-	898,084,148	52.8%
3. Total (gross: direct + assumed)	1,700,390,131	-	-	1,700,390,131	100.0%
4. Reinsurance ceded	481,225,942	-	-	481,225,942	
5. Total (net) (3) - (4)	\$ 1,219,164,189	\$ -	\$ -	\$ 1,219,164,189	
6. Amount included in A(1)b above that will move to A(1)e in the year after the statement date	\$ 2,548,138	\$ -	\$ -	\$ -	

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

NOTES TO FINANCIAL STATEMENTS

C. DEPOSIT-TYPE CONTRACTS
(no life contingencies):

	General Account	Separate Account with Guarantees	Separate Account Nonguaranteed	Total	% of Total
1. Subject to discretionary withdrawal:					
a. With market value adjustment	\$ -	\$ -	\$ -	\$ -	0.0%
b. At book value less current surrender charge of 5% or more	-	-	-	-	0.0%
c. At fair value	-	-	-	-	0.0%
d. Total with market value adjustment or at fair value (total of a through c)	-	-	-	-	0.0%
e. At book value without adjustment (minimal or no charge or adjustment)	-	-	-	-	0.0%
2. Not subject to discretionary withdrawal	903,580,419	-	-	903,580,419	100.0%
3. Total (gross: direct + assumed)	903,580,419	-	-	903,580,419	100.0%
4. Reinsurance ceded	115,610,145	-	-	115,610,145	
5. Total (net) (3) - (4)	\$ 787,970,273	\$ -	\$ -	\$ 787,970,273	
6. Amount included in A(1)b above that will move to A(1)e in the year after the statement date	\$ -	\$ -	\$ -	\$ -	

D.	Amount
Life & Accident & Health Annual Statement:	
1. Exhibit 5, Annuities Section, Total (net)	\$ 30,028,584,086
2. Exhibit 5, Supplementary Contracts with Life Contingencies Section, Total (net)	866,195
3. Exhibit 7, Deposit-Type Contracts, Line 14, Column 1	787,970,274
4. Subtotal	30,817,420,555
Separate Accounts Annual Statement:	
5. Exhibit 3, Line 02999999, Column 2	387,451,687
6. Exhibit 3, Line 03999999, Column 2	-
7. Policyholder dividend and coupon accumulations	-
8. Policyholder premiums	-
9. Guaranteed interest contracts	-
10. Other contract deposit funds	-
11. Subtotal	387,451,687
12. Combined Total	\$ 31,204,872,242

Note 33 - Analysis of Life Actuarial Reserves by Withdrawal Characteristics

Account value, cash value and reserves for the breakouts of life insurance by withdrawal characteristics, separately for General Account products and Separate Account Nonguaranteed products are as follows:

	Account Value	Cash Value	Reserve
A. General Account			
(1) Subject to discretionary withdrawal, surrender values, or policy loans:			
a. Term Policies with Cash Value	-	-	-
b. Universal Life	105,350,215	104,621,564	104,621,564
c. Universal Life with Secondary Guarantees	-	-	-
d. Indexed Universal Life	-	-	-
e. Indexed Universal Life with Secondary Guarantees	-	-	-
f. Indexed Life	-	-	-
g. Other Permanent Cash Value Life Insurance	-	49,765,635	48,704,059
h. Variable Life	-	-	-
i. Variable Universal Life	-	-	-
j. Miscellaneous Reserves	-	-	-
(2) Not subject to discretionary withdrawal or no cash values			
a. Term Policies without Cash Value	XXX	XXX	184,165,996
b. Accidental Death Benefits	XXX	XXX	73,863
c. Disability - Active Lives	XXX	XXX	61,934
d. Disability - Disabled Lives	XXX	XXX	3,390,706
e. Miscellaneous Reserves	XXX	XXX	5,509,485
(3) Total (gross: direct + assumed)	105,350,215	154,387,199	346,527,607
(4) Reinsurance ceded	64,176,351	93,863,169	216,255,352
(5) Total (net) (3) - (4)	41,173,864	60,524,030	130,272,255

B. & C. The Company does not have a Separate Account related to Life Reserves.

D.	Amount
Life & Accident & Health Annual Statement:	
(1) Exhibit 5, Life Insurance Section, Total (net)	\$ 125,118,329
(2) Exhibit 5, Accidental Death Benefits Section, Total (net)	37,841
(3) Exhibit 5, Disability - Active Lives Section, Total (net)	20,276
(4) Exhibit 5, Disability - Disabled Lives Section, Total (net)	1,302,845
(5) Exhibit 5, Miscellaneous Reserves Section, Total (net)	3,792,964
(6) Total	\$ 130,272,255

NOTES TO FINANCIAL STATEMENTS

Note 34 - Premium and Annuity Considerations Deferred and Uncollected

A. Deferred and uncollected life insurance premiums and annuity considerations as of December 31, 2023, were as follows:

Type	Gross	Net of Loading
(1) Industrial	\$ -	\$ -
(2) Ordinary New Business	21,000	2,650
(3) Ordinary Renewal	7,320,331	5,605,255
(4) Credit Life	-	-
(5) Group Life	-	-
(6) Group Annuity	-	-
(7) Total	\$ 7,341,331	\$ 5,607,905

Note 35 - Separate Accounts

A. Separate Account Activity

- (1) The Company utilizes a separate account to record and account for assets and liabilities for individual registered index linked annuities. MMALIC maintains the separate account pursuant to the laws of Ohio for the purpose of supporting the obligation to adjust the indexed strategy values based on the daily value calculation or rise and fall of the index. The assets of the separate account are held in MMALIC's name on behalf of the separate account and legally belong to MMALIC. The assets in the separate account are not chargeable with liabilities arising out of any other business the Company conducts. MMALIC may invest these assets in hedging instruments, including derivative contracts as well as other assets permitted under state law (ORC 3907.15). To support the Company's obligations to adjust the index strategy values, the Company may move funds between the separate account and the general account. MMALIC is not obligated to invest the assets of the separate account according to any particular plan except as the Company may be required to by state insurance laws (MMALIC does have a derivative use plan).
- (2) In accordance with the products and transactions recorded within the separate accounts, all assets are considered legally insulated from the general account and are not chargeable with liabilities incurred in any other business operation of the Company. As of December 31, 2023 and 2022, the Company's separate account statement included legally insulated registered index linked annuity assets of \$443,319,567 and \$103,698,994, respectively.
- (3) With regard to the products/transactions recorded within the separate account, registered index linked annuity products have guarantees backed by the general account. The separate account does not remit any risk charges to the general account for guaranteed benefits for the registered index linked annuity products. The general account has not paid any guarantees for registered index linked annuity products through December 31, 2023.
- (4) The Company does not engage in securities lending transactions with the separate account.

B. General Nature and Characteristics of Separate Accounts Business

The separate account held by the Company relates to individual registered index linked annuities of a nonguaranteed return nature. Indexed strategies are linked to the performance of an external index. The performance of those strategies is credited to the policyholder and can be positive up to a maximum gain or negative up to a maximum loss. A minimum guaranteed death benefit is also provided, which is the greater of the account value or the return of premium amount (purchase payments reduced proportionally for all withdrawals, not including early withdrawal charges). The assets and liabilities of these accounts are carried at fair value.

Information regarding the separate account of the Company is as follows:

	Index	Nonindexed Guarantee Less than/equal to 4%	Nonindexed Guarantee More than 4%	Nonguaranteed Separate Accounts	Total
(1) Premiums, considerations or deposits for year ended 12/31/2022	\$ -	\$ -	\$ -	\$ -	\$ -
Reserves at 12/31/2023					
(2) For accounts with assets at:					
a. Fair value	\$ -	\$ -	\$ -	\$ 387,451,687	\$387,451,687
b. Amortized cost	-	-	-	-	-
c. Total reserves	\$ -	\$ -	\$ -	\$ 387,451,687	\$387,451,687
(3) By withdrawal characteristics:					
a. Subject to discretionary withdrawal	\$ -	\$ -	\$ -	\$ -	\$ -
b. With fair value adjustment	-	-	-	-	-
c. At book value without fair value adjustment and with current surrender charge of 5% or more	-	-	-	-	-
d. At fair value	-	-	-	387,451,687	387,451,687
e. At book value without fair value adjustment and with current surrender charge less than 5%	-	-	-	-	-
f. Subtotal	-	-	-	387,451,687	387,451,687
g. Not subject to discretionary withdrawal	-	-	-	-	-
h. Total	\$ -	\$ -	\$ -	\$ 387,451,687	\$387,451,687
(4) Reserves for asset default risk in lieu of AVR	\$ -	\$ -	\$ -	\$ -	\$ -

C. The following is a reconciliation of the net transfer to (from) the Separate Account:

- (1) Transfers as reported in the Summary of Operations of the Separate Accounts Statement:
- | | |
|---|---------------|
| a. Transfers to Separate Accounts (Page 4, Line 1.4) | \$ - |
| b. Transfers from Separate Accounts (Page 4, Line 10) | (356,807,133) |
| c. Net transfers to or (from) Separate Accounts (a) - (b) | \$356,807,133 |
- (2) Reconciling Adjustments
- | | |
|--|------|
| | \$ - |
|--|------|
- (3) Transfers as reported in the Summary of Operations of the Life, Accident & Health Annual Statement (1c) + (2) = (Page 4, Line 26)
- | | |
|--|---------------|
| | \$356,807,133 |
|--|---------------|

NOTES TO FINANCIAL STATEMENTS

Note 36 - Loss/Claim Adjustment Expenses

Reserves for loss/claim adjustment expenses are contained within the claim liability reserve for incurred but not reported claims. For December 31, 2023 and 2022 the loss/claim adjustment expense reserves were \$348,279 and \$473,846, respectively.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

1.1

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, 1A, 2 and 3.

Yes [X] No []

1.2

If yes, did the reporting entity register and file with its domiciliary State Insurance Commissioner, Director or Superintendent or with such regulatory official of the state of domicile of the principal insurer in the Holding Company System, a registration statement providing disclosure substantially similar to the standards adopted by the National Association of Insurance Commissioners (NAIC) in its Model Insurance Holding Company System Regulatory Act and model regulations pertaining thereto, or is the reporting entity subject to standards and disclosure requirements substantially similar to those required by such Act and regulations?

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

1.3

State Regulating?

Ohio

1.4

Is the reporting entity publicly traded or a member of a publicly traded group?

Yes [] No [X]

1.5

If the response to 1.4 is yes, provide the CIK (Central Index Key) code issued by the SEC for the entity/group.

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

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

12/31/2021

3.2

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

3.3

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

3.4

By what department or departments?
State of Ohio, Department of Insurance

3.5

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]

3.6

Have all of the recommendations within the latest financial examination report been complied with?

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

4.1

During the period covered by this statement, did any agent, broker, sales representative, non-affiliated sales/service organization or any combination thereof under common control (other than salaried employees of the reporting entity), receive credit or commissions for or control a substantial part (more than 20 percent of any major line of business measured on direct premiums) of:
4.11 sales of new business?
4.12 renewals?

Yes [] No [X]
Yes [] No [X]

4.2

During the period covered by this statement, did any sales/service organization owned in whole or in part by the reporting entity or an affiliate, receive credit or commissions for or control a substantial part (more than 20 percent of any major line of business measured on direct premiums) of:
4.21 sales of new business?
4.22 renewals?

Yes [] No [X]
Yes [] No [X]

5.1

Has the reporting entity been a party to a merger or consolidation during the period covered by this statement?
If yes, complete and file the merger history data file with the NAIC.

Yes [] No [X]

5.2

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 Name of Entity	2 NAIC Company Code	3 State of Domicile

6.1

Has the 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]

6.2

If yes, give full information:

7.1

Does any foreign (non-United States) person or entity directly or indirectly control 10% or more of the reporting entity?

Yes [] No [X]

7.2

If yes,
7.21 State the percentage of foreign control; %
7.22 State the nationality(s) of the foreign person(s) or entity(s); or if the entity is a mutual or reciprocal, the nationality of its manager or attorney-in-fact and identify the type of entity(s) (e.g., individual, corporation, government, manager or attorney-in-fact).

1 Nationality	2 Type of Entity

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

- 8.1

Is the company a subsidiary of a depository institution holding company (DIHC) or a DIHC itself, regulated by the Federal Reserve Board?

Yes [] No [X]
- 8.2

If the response to 8.1 is yes, please identify the name of the DIHC.
.....
- 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 Affiliate Name	2 Location (City, State)	3 FRB	4 OCC	5 FDIC	6 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..
MM Ascend Life Investor Services, LLC	Cincinnati, OH .....	..NO..	..NO..	..NO..	..YES..
MML Distributors, LLC	Springfield, MA .....	..NO..	..NO..	..NO..	..YES..
MML Investment Advisers, LLC	Springfield, MA .....	..NO..	..NO..	..NO..	..YES..
MML Investors Services	Springfield, MA .....	..NO..	..NO..	..NO..	..YES..
MML Strategic Distributors, LLC	Springfield, MA .....	..NO..	..NO..	..NO..	..YES..
The MassMutual Trust Company, OCC	Enfield, CT .....	..NO..	..YES..	..NO..	..NO..

- 8.5

Is the reporting entity a depository institution holding company with significant insurance operations as defined by the Board of Governors of Federal Reserve System or a subsidiary of the depository institution holding company?

Yes [] No [X]
- 8.6

If response to 8.5 is no, is the reporting entity a company or subsidiary of a company that has otherwise been made subject to the Federal Reserve Board's capital rule?

Yes [] No [X] N/A []
9.

What is the name and address of the independent certified public accountant or accounting firm retained to conduct the annual audit?
KPMG LLP, 191 W Nationwide Blvd. Suite 500, Columbus, OH, 43215
- 10.1

Has the insurer been granted any exemptions to the prohibited non-audit services provided by the certified independent public accountant requirements as allowed in Section 7H of the Annual Financial Reporting Model Regulation (Model Audit Rule), or substantially similar state law or regulation?

Yes [] No [X]
- 10.2

If the response to 10.1 is yes, provide information related to this exemption:
.....
- 10.3

Has the insurer been granted any exemptions related to the other requirements of the Annual Financial Reporting Model Regulation as allowed for in Section 18A of the Model Regulation, or substantially similar state law or regulation?

Yes [] No [X]
- 10.4

If the response to 10.3 is yes, provide information related to this exemption:
.....
- 10.5

Has the reporting entity established an Audit Committee in compliance with the domiciliary state insurance laws?

Yes [] No [X] N/A []
- 10.6

If the response to 10.5 is no or n/a, please explain.
Pursuant to Ohio Administrative Code section 3901-1-50 (Model Audit Rule), the Audit Committee of the Board of Directors of Massachusetts Mutual Life Insurance Company, the reporting entity's ultimate parent, serves as its Audit Committee.
11.

What is the name, address and affiliation (officer/employee of the reporting entity or actuary/consultant associated with an actuarial consulting firm) of the individual providing the statement of actuarial opinion/certification?
Isaac Cezar Hall, 191 Rosa Parks Street, Cincinnati, OH, 45201, Officer
- 12.1

Does the reporting entity own any securities of a real estate holding company or otherwise hold real estate indirectly?

Yes [X] No []
- 12.11 Name of real estate holding company ... See 12.2
- 12.12 Number of parcels involved

77
- 12.13 Total book/adjusted carrying value

\$ 1,417,772,537
- 12.2

If yes, provide explanation
The Company held investments in debt securities in 62 parcels, which own or hold real estate indirectly. The statement value at December 31, 2023 of debt was \$1,324,475,649. The Company also held 15 investments in LP and LLC entities that own real estate. These investments had a statement value of \$93,296,889 as of December 31, 2023.
13.

FOR UNITED STATES BRANCHES OF ALIEN REPORTING ENTITIES ONLY:
- 13.1

What changes have been made during the year in the United States manager or the United States trustees of the reporting entity?
Not Applicable.
- 13.2

Does this statement contain all business transacted for the reporting entity through its United States Branch on risks wherever located?

Yes [] No [X]
- 13.3

Have there been any changes made to any of the trust indentures during the year?

Yes [] No [X]
- 13.4

If answer to (13.3) is yes, has the domiciliary or entry state approved the changes?

Yes [] No [] N/A [X]
- 14.1

Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?

Yes [X] No []
- a. Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- b. Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity;
- c. Compliance with applicable governmental laws, rules and regulations;
- d. The prompt internal reporting of violations to an appropriate person or persons identified in the code; and
- e. Accountability for adherence to the code.
- 14.11

If the response to 14.1 is No, please explain:
.....
- 14.2

Has the code of ethics for senior managers been amended?

Yes [] No [X]
- 14.21

If the response to 14.2 is yes, provide information related to amendment(s).
.....
- 14.3

Have any provisions of the code of ethics been waived for any of the specified officers?

Yes [] No [X]
- 14.31

If the response to 14.3 is yes, provide the nature of any waiver(s).
.....

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

- 15.1

Is the reporting entity the beneficiary of a Letter of Credit that is unrelated to reinsurance where the issuing or confirming bank is not on the SVO Bank List?

Yes [] No [X]
- 15.2

If the response to 15.1 is yes, indicate the American Bankers Association (ABA) Routing Number and the name of the issuing or confirming bank of the Letter of Credit and describe the circumstances in which the Letter of Credit is triggered.

1 American Bankers Association (ABA) Routing Number	2 Issuing or Confirming Bank Name	3 Circumstances That Can Trigger the Letter of Credit	4 Amount

BOARD OF DIRECTORS

16.

Is the purchase or sale of all investments of the reporting entity passed upon either by the board of directors or a subordinate committee thereof?

Yes [X] No []
17.

Does the reporting entity keep a complete permanent record of the proceedings of its board of directors and all subordinate committees thereof?

Yes [X] No []
18.

Has the reporting entity an established procedure for disclosure to its board of directors or trustees of any material interest or affiliation on the part of any of its officers, directors, trustees or responsible employees that is in conflict or is likely to conflict with the official duties of such person?

Yes [X] No []

FINANCIAL

19.

Has this statement been prepared using a basis of accounting other than Statutory Accounting Principles (e.g., Generally Accepted Accounting Principles)?

Yes [] No [X]
- 20.1

Total amount loaned during the year (inclusive of Separate Accounts, exclusive of policy loans):

20.11 To directors or other officers.....\$

20.12 To stockholders not officers.....\$

20.13 Trustees, supreme or grand (Fraternal Only)\$
- 20.2

Total amount of loans outstanding at the end of year (inclusive of Separate Accounts, exclusive of policy loans):

20.21 To directors or other officers.....\$

20.22 To stockholders not officers.....\$

20.23 Trustees, supreme or grand (Fraternal Only)\$
- 21.1

Were any assets reported in this statement subject to a contractual obligation to transfer to another party without the liability for such obligation being reported in the statement?

Yes [] No [X]
- 21.2

If yes, state the amount thereof at December 31 of the current year:

21.21 Rented from others.....\$

21.22 Borrowed from others.....\$

21.23 Leased from others\$

21.24 Other\$
- 22.1

Does this statement include payments for assessments as described in the Annual Statement Instructions other than guaranty fund or guaranty association assessments?

Yes [] No [X]
- 22.2

If answer is yes:

22.21 Amount paid as losses or risk adjustment \$

22.22 Amount paid as expenses\$

22.23 Other amounts paid\$
- 23.1

Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement?

Yes [X] No []
- 23.2

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

\$ 719,602
- 24.1

Does the insurer utilize third parties to pay agent commissions in which the amounts advanced by the third parties are not settled in full within 90 days?

Yes [] No [X]
- 24.2

If the response to 24.1 is yes, identify the third-party that pays the agents and whether they are a related party.

Name of Third-Party	Is the Third-Party Agent a Related Party (Yes/No)

INVESTMENT

- 25.01

Were all the stocks, bonds and other securities owned December 31 of current year, over which the reporting entity has exclusive control, in the actual possession of the reporting entity on said date? (other than securities lending programs addressed in 25.03)

Yes [X] No []

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

25.02 If no, give full and complete information, relating thereto

25.03 For securities lending programs, provide a description of the program including value for collateral and amount of loaned securities, and whether collateral is carried on or off-balance sheet. (an alternative is to reference Note 17 where this information is also provided)
N/A

25.04 For the reporting entity's securities lending program, report amount of collateral for conforming programs as outlined in the Risk-Based Capital Instructions. \$

25.05 For the reporting entity's securities lending program, report amount of collateral for other programs. \$

25.06 Does your securities lending program require 102% (domestic securities) and 105% (foreign securities) from the counterparty at the outset of the contract? Yes [] No [] N/A [X]

25.07 Does the reporting entity non-admit when the collateral received from the counterparty falls below 100%? Yes [] No [] N/A [X]

25.08 Does the reporting entity or the reporting entity's securities lending agent utilize the Master Securities lending Agreement (MSLA) to conduct securities lending? Yes [] No [] N/A [X]

25.09 For the reporting entity's securities lending program state the amount of the following as of December 31 of the current year:

25.091 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2. \$

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

25.093 Total payable for securities lending reported on the liability page. \$

26.1 Were any of the stocks, bonds or other assets of the reporting entity owned at December 31 of the current year not exclusively under the control of the reporting entity or has the reporting entity sold or transferred any assets subject to a put option contract that is currently in force? (Exclude securities subject to Interrogatory 21.1 and 25.03). Yes [X] No []

26.2 If yes, state the amount thereof at December 31 of the current year:

26.21 Subject to repurchase agreements \$

26.22 Subject to reverse repurchase agreements \$

26.23 Subject to dollar repurchase agreements \$

26.24 Subject to reverse dollar repurchase agreements \$

26.25 Placed under option agreements \$

26.26 Letter stock or securities restricted as to sale -
excluding FHLB Capital Stock \$ 157,437,071

26.27 FHLB Capital Stock \$ 41,525,200

26.28 On deposit with states \$ 6,557,350

26.29 On deposit with other regulatory bodies \$

26.30 Pledged as collateral - excluding collateral pledged to
an FHLB \$ 196,446,757

26.31 Pledged as collateral to FHLB - including assets
backing funding agreements \$ 1,279,160,145

26.32 Other \$

26.3 For category (26.26) provide the following:

1 Nature of Restriction	2 Description	3 Amount
Restricted by contractual agreements	Various	157,437,071

27.1 Does the reporting entity have any hedging transactions reported on Schedule DB? Yes [X] No []

27.2 If yes, has a comprehensive description of the hedging program been made available to the domiciliary state? Yes [X] No [] N/A []
If no, attach a description with this statement.

LINES 27.3 through 27.5: FOR LIFE/FRATERNAL REPORTING ENTITIES ONLY:

27.3 Does the reporting entity utilize derivatives to hedge variable annuity guarantees subject to fluctuations as a result of interest rate sensitivity? Yes [] No [X]

27.4 If the response to 27.3 is YES, does the reporting entity utilize:

27.41 Special accounting provision of SSAP No. 108 Yes [] No []

27.42 Permitted accounting practice Yes [] No []

27.43 Other accounting guidance Yes [] No []

27.5 By responding YES to 27.41 regarding utilizing the special accounting provisions of SSAP No. 108, the reporting entity attests to the following:

The reporting entity has obtained explicit approval from the domiciliary state.

Hedging strategy subject to the special accounting provisions is consistent with the requirements of VM-21.

Actuarial certification has been obtained which indicates that the hedging strategy is incorporated within the establishment of VM-21 reserves and provides the impact of the hedging strategy within the Actuarial Guideline Conditional Tail Expectation Amount.

Financial Officer Certification has been obtained which indicates that the hedging strategy meets the definition of a Clearly Defined Hedging Strategy within VM-21 and that the Clearly Defined Hedging Strategy is the hedging strategy being used by the company in its actual day-to-day risk mitigation efforts.

Yes [] No []

28.1 Were any preferred stocks or bonds owned as of December 31 of the current year mandatorily convertible into equity, or, at the option of the issuer, convertible into equity? Yes [X] No []

28.2 If yes, state the amount thereof at December 31 of the current year. \$ 39,087,453

29. 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 []

29.01 For agreements that comply with the requirements of the NAIC Financial Condition Examiners Handbook, complete the following:

1 Name of Custodian(s)	2 Custodian's Address
Bank of New York Mellon	1 Wall Street, New York, NY 10286
State Street Global Services	801 Pennsylvania Avenue, Kansas City, MO 64105

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

29.02 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)

29.03 Have there been any changes, including name changes, in the custodian(s) identified in 29.01 during the current year?..... Yes [] No [X]

29.04 If yes, give full and complete information relating thereto:

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

29.05 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.....

29.0597 For those firms/individuals listed in the table for Question 29.05, 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]

29.0598 For firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") listed in the table for Question 29.05, does the total assets under management aggregate to more than 50% of the reporting entity's invested assets?..... Yes [] No [X]

29.06 For those firms or individuals listed in the table for 29.05 with an affiliation code of "A" (affiliated) or "U" (unaffiliated), provide the information for the table below.

1	2	3	4	5
Central Registration Depository Number	Name of Firm or Individual	Legal Entity Identifier (LEI)	Registered With	Investment Management Agreement (IMA) Filed
130074	ARES Capital Management LLC	549300R4YHRZ8JUZU385	SEC	NO.....
130074	Ares Management LLC	549300JA9GMPFTSVQQ05	SEC	NO.....
106006	Barings LLC	549300G36F1EZS4MQM37	SEC	DS.....
131940	Angelo, Gordon & Co., L.P.	XXJ808RONB9FETFPGB63	SEC	NO.....
157359	Centerbridge Martello Advisors, LLC	549300F5X7LPP05D3544	SEC	NO.....
311767	Fractal Investments LLC – Pending Mandate	984500D14JFD006CBC96	SEC	NO.....
801-8162	Western Asset Management Company	549300C5A561UXU1CN46	SEC	NO.....

30.1 Does the reporting entity have any diversified mutual funds reported in Schedule D, Part 2 (diversified according to the Securities and Exchange Commission (SEC) in the Investment Company Act of 1940 [Section 5(b)(1)])? Yes [] No [X]

30.2 If yes, complete the following schedule:

1 CUSIP #	2 Name of Mutual Fund	3 Book/Adjusted Carrying Value
30.2999 - Total		0

30.3 For each mutual fund listed in the table above, complete the following schedule:

1	2	3	4
Name of Mutual Fund (from above table)	Name of Significant Holding of the Mutual Fund	Amount of Mutual Fund's Book/Adjusted Carrying Value Attributable to the Holding	Date of Valuation

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

31. Provide the following information for all short-term and long-term bonds and all preferred stocks. Do not substitute amortized value or statement value for fair value.

	1	2	3
	Statement (Admitted) Value	Fair Value	Excess of Statement over Fair Value (-), or Fair Value over Statement (+)
31.1 Bonds	36,903,332,420	35,285,953,302	(1,617,379,118)
31.2 Preferred stocks	201,026,229	217,880,729	16,854,500
31.3 Totals	37,104,358,649	35,503,834,031	(1,600,524,618)

31.4 Describe the sources or methods utilized in determining the fair values:
The Fair Value of securities is obtained using quoted market prices when available. If not available, estimated fair value is based on values provided by other third-party organizations. If values provided by other third-party organizations are unavailable, fair value is estimated using internal models by discounting future cash flows using observable current market rates applicable to yield, credit quality and maturity of the investment or using quoted market values for comparable investments. Internal inputs used in the determination of fair value include estimated prepayment speeds, default rates, discount rates and collateral values, among others. Structure Characteristics and results of cash flow priority are also considered.

32.1 Was the rate used to calculate fair value determined by a broker or custodian for any of the securities in Schedule D? Yes [X] No []

32.2 If the answer to 32.1 is yes, does the reporting entity have a copy of the broker's or custodian's pricing policy (hard copy or electronic copy) for all brokers or custodians used as a pricing source? Yes [X] No []

32.3 If the answer to 32.2 is no, describe the reporting entity's process for determining a reliable pricing source for purposes of disclosure of fair value for Schedule D:

33.1 Have all the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office been followed? Yes [] No [X]

33.2 If no, list exceptions:
At 12/31/2023, 30 issues for 24 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 \$187,747,619.03 or 0.52% of all assets.

34. By self-designating 5GI securities, the reporting entity is certifying the following elements of 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 []

35. 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]

36. 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]

37. By rolling/renewing short-term or cash equivalent investments with continued reporting on Schedule DA, Part 1 or Schedule E Part 2 (identified through a code (%) in those investment schedules), the reporting entity is certifying to the following:
a. The investment is a liquid asset that can be terminated by the reporting entity on the current maturity date.
b. If the investment is with a nonrelated party or nonaffiliate, then it reflects an arms-length transaction with renewal completed at the discretion of all involved parties.
c. If the investment is with a related party or affiliate, then the reporting entity has completed robust re-underwriting of the transaction for which documentation is available for regulator review.
d. Short-term and cash equivalent investments that have been renewed/rolled from the prior period that do not meet the criteria in 37.a - 37.c are reported as long-term investments.
Has the reporting entity rolled/renewed short-term or cash equivalent investments in accordance with these criteria? Yes [] No [X] N/A []

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

- 38.1 Does the reporting entity directly hold cryptocurrencies? Yes [] No [X]
- 38.2 If the response to 38.1 is yes, on what schedule are they reported?
.....
- 39.1 Does the reporting entity directly or indirectly accept cryptocurrencies as payments for premiums on policies? Yes [] No [X]
- 39.2 If the response to 39.1 is yes, are the cryptocurrencies held directly or are they immediately converted to U.S. dollars?
39.21 Held directly Yes [] No []
39.22 Immediately converted to U.S. dollars Yes [] No []
- 39.3 If the response to 38.1 or 39.1 is yes, list all cryptocurrencies accepted for payments of premiums or that are held directly.

1	2	3
Name of Cryptocurrency	Immediately Converted to USD, Directly Held, or Both	Accepted for Payment of Premiums

OTHER

- 40.1 Amount of payments to trade associations, service organizations and statistical or rating bureaus, if any?\$6,025,377
- 40.2 List the name of the organization and the amount paid if any such payment represented 25% or more of the total payments to trade associations, service organizations and statistical or rating bureaus during the period covered by this statement.

1	2
Name	Amount Paid
S&P, DOW JONES INDICES .....	.....5,759,802
- 41.1 Amount of payments for legal expenses, if any?\$1,460,964
- 41.2 List the name of the firm and the amount paid if any such payment represented 25% or more of the total payments for legal expenses during the period covered by this statement.

1	2
Name	Amount Paid
DEBEVOISE & PLIMPTON LLP .....	.....654,417
- 42.1 Amount of payments for expenditures in connection with matters before legislative bodies, officers or departments of government, if any?\$24,266
- 42.2 List the name of the firm and the amount paid if any such payment represented 25% or more of the total payment expenditures in connection with matters before legislative bodies, officers, or departments of government during the period covered by this statement.

1	2
Name	Amount Paid
BRICKER & ECKLER .....	.....20,766

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

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

Life, Accident and Health Companies/Fraternal Benefit Societies:

1.1

Does the reporting entity have any direct Medicare Supplement Insurance in force?

Yes [X] No []

1.2

If yes, indicate premium earned on U.S. business only

\$ 1,855,282

1.3

What portion of Item (1.2) is not reported on the Medicare Supplement Insurance Experience Exhibit?

\$

1.31

Reason for excluding:

1.4

Indicate amount of earned premium attributable to Canadian and/or Other Alien not included in Item (1.2) above.

\$

1.5

Indicate total incurred claims on all Medicare Supplement insurance.

\$ 1,267,000

1.6

Individual policies:

Most current three years:

1.61

Total premium earned

\$ 0

1.62

Total incurred claims

\$ 0

1.63

Number of covered lives

0

All years prior to most current three years

1.64

Total premium earned

\$ 1,855,282

1.65

Total incurred claims

\$ 1,267,000

1.66

Number of covered lives

359

1.7

Group policies:

Most current three years:

1.71

Total premium earned

\$ 0

1.72

Total incurred claims

\$ 0

1.73

Number of covered lives

0

All years prior to most current three years

1.74

Total premium earned

\$ 0

1.75

Total incurred claims

\$ 0

1.76

Number of covered lives

0

2.

Health Test:

1

Current Year

2

Prior Year

2.1

Premium Numerator

2.2

Premium Denominator

8,506,770,768

(7,198,257,952)

2.3

Premium Ratio (2.1/2.2)

0.000

0.000

2.4

Reserve Numerator

2,232,640

2,073,887

2.5

Reserve Denominator

30,373,294,077

24,446,801,157

2.6

Reserve Ratio (2.4/2.5)

0.000

0.000

3.1

Does this reporting entity have Separate Accounts?

Yes [X] No []

3.2

If yes, has a Separate Accounts Statement been filed with this Department?

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

3.3

What portion of capital and surplus funds of the reporting entity covered by assets in the Separate Accounts statement, is not currently distributable from the Separate Accounts to the general account for use by the general account?

\$

3.4

State the authority under which Separate Accounts are maintained:

State of Ohio, Department of Insurance

3.5

Was any of the reporting entity's Separate Accounts business reinsured as of December 31?

Yes [] No [X]

3.6

Has the reporting entity assumed by reinsurance any Separate Accounts business as of December 31?

Yes [] No [X]

3.7

If the reporting entity has assumed Separate Accounts business, how much, if any, reinsurance assumed receivable for reinsurance of Separate Accounts reserve expense allowances is included as a negative amount in the liability for "Transfers to Separate Accounts due or accrued (net)"?

\$

4.

For reporting entities having sold annuities to another insurer where the insurer purchasing the annuities has obtained a release of liability from the claimant (payee) as the result of the purchase of an annuity from the reporting entity only:

4.1

Amount of loss reserves established by these annuities during the current year:

\$

4.2

List the name and location of the insurance company purchasing the annuities and the statement value on the purchase date of the annuities.

1	2
P&C Insurance Company And Location	Statement Value on Purchase Date of Annuities (i.e., Present Value)

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

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

- 5.1 Do you act as a custodian for health savings accounts? Yes [] No [X]
- 5.2 If yes, please provide the amount of custodial funds held as of the reporting date.\$
- 5.3 Do you act as an administrator for health savings accounts? Yes [] No [X]
- 5.4 If yes, please provide the balance of funds administered as of the reporting date.\$
- 6.1 Are any of the captive affiliates reported on Schedule S, Part 3, authorized reinsurers? Yes [] No [] N/A [X]
- 6.2 If the answer to 6.1 is yes, please provide the following:

1 Company Name	2 NAIC Company Code	3 Domiciliary Jurisdiction	4 Reserve Credit	Assets Supporting Reserve Credit		
				5 Letters of Credit	6 Trust Agreements	7 Other
.....

7. Provide the following for individual ordinary life insurance* policies (U.S. business only) for the current year (prior to reinsurance assumed or ceded):
- 7.1 Direct Premium Written \$ 18,599,421
- 7.2 Total Incurred Claims \$ 37,737,685
- 7.3 Number of Covered Lives 24,462

*Ordinary Life Insurance Includes
Term (whether full underwriting,limited underwriting,jet issue,"short form app")
Whole Life (whether full underwriting,limited underwriting,jet issue,"short form app")
Variable Life (with or without secondary gurantee)
Universal Life (with or without secondary gurantee)
Variable Universal Life (with or without secondary gurantee)

8. Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states? Yes [X] No []
- 8.1 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 []

Life, Accident and Health Companies Only:

- 9.1 Are personnel or facilities of this reporting entity used by another entity or entities or are personnel or facilities of another entity or entities used by this reporting entity (except for activities such as administration of jointly underwritten group contracts and joint mortality or morbidity studies)? Yes [X] No []
- 9.2 Net reimbursement of such expenses between reporting entities:
- 9.21 Paid\$
- 9.22 Received.....\$ 8,376,405
- 10.1 Does the reporting entity write any guaranteed interest contracts? Yes [] No [X]
- 10.2 If yes, what amount pertaining to these lines is included in:
- 10.21 Page 3, Line 1\$
- 10.22 Page 4, Line 1\$
11. For stock reporting entities only:
- 11.1 Total amount paid in by stockholders as surplus funds since organization of the reporting entity: \$.....815,178,800
12. Total dividends paid stockholders since organization of the reporting entity:
- 12.11 Cash\$ 2,656,667,601
- 12.12 Stock\$
- 13.1 Does the reporting entity reinsure any Workers' Compensation Carve-Out business defined as: Yes [] No [X]
Reinsurance (including retrocessional reinsurance) assumed by life and health insurers of medical, wage loss and death benefits of the occupational illness and accident exposures, but not the employers liability exposures, of business originally written as workers' compensation insurance.
- 13.2 If yes, has the reporting entity completed the Workers' Compensation Carve-Out Supplement to the Annual Statement? Yes [] No []
- 13.3 If 13.1 is yes, the amounts of earned premiums and claims incurred in this statement are:

	1 Reinsurance Assumed	2 Reinsurance Ceded	3 Net Retained
13.31 Earned premium0
13.32 Paid claims0
13.33 Claim liability and reserve (beginning of year)0
13.34 Claim liability and reserve (end of year)0
13.35 Incurred claims .....	.....0	.....0	.....0

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

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

13.4 If reinsurance assumed included amounts with attachment points below \$1,000,000, the distribution of the amounts reported in Lines 13.31 and 13.34 for Column (1) are:

	Attachment Point	1 Earned Premium	2 Claim Liability and Reserve
13.41	<\$25,000		
13.42	\$25,000 - 99,999		
13.43	\$100,000 - 249,999		
13.44	\$250,000 - 999,999		
13.45	\$1,000,000 or more		

13.5 What portion of earned premium reported in 13.31, Column 1 was assumed from pools? \$

Fraternal Benefit Societies Only:

14. Is the reporting entity organized and conducted on the lodge system, with ritualistic form of work and representative form of government? Yes No

15. How often are meetings of the subordinate branches required to be held?

16. How are the subordinate branches represented in the supreme or governing body?

17. What is the basis of representation in the governing body?

18.1 How often are regular meetings of the governing body held?

18.2 When was the last regular meeting of the governing body held?

18.3 When and where will the next regular or special meeting of the governing body be held?

18.4 How many members of the governing body attended the last regular meeting?

18.5 How many of the same were delegates of the subordinate branches?

19. How are the expenses of the governing body defrayed?

20. When and by whom are the officers and directors elected?

21. What are the qualifications for membership?

22. What are the limiting ages for admission?

23. What is the minimum and maximum insurance that may be issued on any one life?

24. Is a medical examination required before issuing benefit certificates to applicants? Yes No

25. Are applicants admitted to membership without filing an application with and becoming a member of a local branch by ballot and initiation? Yes No

26.1 Are notices of the payments required sent to the members? Yes No N/A

26.2 If yes, do the notices state the purpose for which the money is to be used? Yes No

27. What proportion of first and subsequent year's payments may be used for management expenses?

27.11 First Year %

27.12 Subsequent Years %

28.1 Is any part of the mortuary, disability, emergency or reserve fund, or the accretions from or payments for the same, used for expenses? Yes No

28.2 If so, what amount and for what purpose? \$

29.1 Does the reporting entity pay an old age disability benefit? Yes No

29.2 If yes, at what age does the benefit commence?

30.1 Has the constitution or have the laws of the reporting entity been amended during the year? Yes No

30.2 If yes, when?

31. Have you filed with this Department all forms of benefit certificates issued, a copy of the constitution and all of the laws, rules and regulations in force at the present time? Yes No

32.1 State whether all or a portion of the regular insurance contributions were waived during the current year under premium-paying certificates on account of meeting attained age or membership requirements? Yes No

32.2 If so, was an additional reserve included in Exhibit 5? Yes No N/A

32.3 If yes, explain

33.1 Has the reporting entity reinsured, amalgamated with, or absorbed any company, order, society, or association during the year? Yes No

33.2 If yes, was there any contract agreement, or understanding, written or oral, expressed or implied, by means of which any officer, director, trustee, or any other person, or firm, corporation, society or association, received or is to receive any fee, commission, emolument, or compensation of any nature whatsoever in connection with, on an account of such reinsurance, amalgamation, absorption, or transfer of membership or funds? Yes No N/A

34. Has any present or former officer, director, trustee, incorporator, or any other persons, or any firm, corporation, society or association, any claims of any nature whatsoever against this reporting entity, which is not included in the liabilities on Page 3 of this statement? Yes No

35.1 Does the reporting entity have outstanding assessments in the form of liens against policy benefits that have increased surplus? Yes No

35.2 If yes, what is the date of the original lien and the outstanding balance of the liens that remain in surplus?

Date of Original Lien	Outstanding Lien Amount

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

FIVE-YEAR HISTORICAL DATA

Show amounts in whole dollars only, no cents; show percentages to one decimal place, i.e. 17.6.
\$000 omitted for amounts of life insurance

	1 2023	2 2022	3 2021	4 2020	5 2019
Life Insurance in Force (Exhibit of Life Insurance)					
1. Ordinary - whole life and endowment (Line 34, Col. 4)	1,018,803	1,135,104	1,187,116	1,249,351	1,333,952
2. Ordinary - term (Line 21, Col. 4, less Line 34, Col. 4)	3,055,426	3,956,634	5,303,192	6,051,774	7,076,389
3. Credit life (Line 21, Col. 6)	0	0	0	0	0
4. Group, excluding FEGLI/SGLI (Line 21, Col. 9 less Lines 43 & 44, Col. 4)	12,695	13,781	14,989	18,878	20,350
5. Industrial (Line 21, Col. 2)	0	0	0	0	0
6. FEGLI/SGLI (Lines 43 & 44, Col. 4)	0	0	0	0	0
7. Total (Line 21, Col. 10)	4,086,924	5,105,519	6,505,297	7,320,003	8,430,691
7.1 Total in force for which VM-20 deterministic/stochastic reserves are calculated					
New Business Issued (Exhibit of Life Insurance)					
8. Ordinary - whole life and endowment (Line 34, Col. 2)	1,826	1,410	1,845	2,866	1,955
9. Ordinary - term (Line 2, Col. 4, less Line 34, Col. 2)	150	210	60	15	3
10. Credit life (Line 2, Col. 6)	0	0	0	0	0
11. Group (Line 2, Col. 9)	0	0	0	0	0
12. Industrial (Line 2, Col. 2)	0	0	0	0	0
13. Total (Line 2, Col. 10)	1,976	1,620	1,905	2,881	1,958
Premium Income - Lines of Business (Exhibit 1 - Part 1)					
14. Individual life (Line 20.4, Col. 2)	11,235,099	13,012,249	13,965,790	14,129,112	16,318,898
15. Group life (Line 20.4, Col. 3)	0			(312)	56
16. Individual annuities (Line 20.4, Col. 4)	8,489,608,439	(6,710,610,755)	4,874,033,517	(3,246,437,764)	4,417,893,719
17. Group annuities (Line 20.4, Col. 5)	2,931,904	(503,851,224)	138,756,519	508,009,549	266,761,478
18. Accident & Health (Line 20.4, Col. 6)	2,995,326	3,191,778	235,738	8,259,943	3,467,418
19. Other lines of business (Line 20.4, Col. 8)	0		0	0	0
20. Total	8,506,770,768	(7,198,257,952)	5,026,991,564	(2,716,039,472)	4,704,441,569
Balance Sheet (Pages 2 & 3)					
21. Total admitted assets excluding Separate Accounts business (Page 2, Line 26, Col. 3)	46,568,130,190	42,779,342,665	38,381,318,191	35,776,746,245	40,012,179,543
22. Total liabilities excluding Separate Accounts business (Page 3, Line 26)	43,483,674,590	39,946,759,827	35,503,197,569	32,879,554,457	37,144,066,292
23. Aggregate life reserves (Page 3, Line 1)	30,159,722,538	24,259,873,748	33,231,720,248	30,127,660,056	34,217,810,260
23.1 Excess VM-20 deterministic/stochastic reserve over NPR related to Line 7.1					
24. Aggregate A & H reserves (Page 3, Line 2)	52,438,219	50,510,234	58,728,683	55,007,419	45,883,507
25. Deposit-type contract funds (Page 3, Line 3)	787,970,274	779,823,617	592,074,541	1,532,959,003	1,509,062,365
26. Asset valuation reserve (Page 3, Line 24.01)	528,429,311	577,063,642	504,145,594	410,701,293	439,152,813
27. Capital (Page 3, Lines 29 and 30)	1,507,500	1,507,500	1,507,500	1,507,500	2,512,500
28. Surplus (Page 3, Line 37)	3,082,948,100	2,831,075,338	2,876,613,122	2,895,684,288	2,865,600,751
Cash Flow (Page 5)					
29. Net Cash from Operations (Line 11)	6,817,527,144	5,762,623,553	3,851,829,839	(3,459,277,339)	3,696,718,809
Risk-Based Capital Analysis					
30. Total adjusted capital	3,631,537,122	3,428,458,288	3,399,038,172	3,323,734,643	3,324,381,212
31. Authorized control level risk - based capital	401,455,994	385,342,819	422,121,598	405,644,746	435,772,738
Percentage Distribution of Cash, Cash Equivalents and Invested Assets (Page 2, Col. 3) (Line No. /Page 2, Line 12, Col. 3) x 100.0					
32. Bonds (Line 1)	78.1	80.0	83.5	79.3	83.2
33. Stocks (Lines 2.1 and 2.2)	2.1	2.1	2.8	3.3	3.2
34. Mortgage loans on real estate(Lines 3.1 and 3.2)	9.5	7.4	5.8	4.5	3.5
35. Real estate (Lines 4.1, 4.2 and 4.3)	0.0	0.0	0.0	0.2	0.3
36. Cash, cash equivalents and short-term investments (Line 5)	4.9	4.8	2.7	5.9	3.8
37. Contract loans (Line 6)	0.1	0.1	0.2	0.2	0.2
38. Derivatives (Page 2, Line 7)	1.8	2.1	1.9	2.6	2.4
39. Other invested assets (Line 8)	3.2	3.3	2.9	4.0	3.3
40. Receivables for securities (Line 9)	0.4	0.3	0.2	0.0	0.0
41. Securities lending reinvested collateral assets (Line 10)	0.0	0.0	0.0	0.0	0.0
42. Aggregate write-ins for invested assets (Line 11)	0.0	0.0	0.0	0.0	0.0
43. Cash, cash equivalents and invested assets (Line 12)	100.0	100.0	100.0	100.0	100.0
Investments in Parent, Subsidiaries and Affiliates					
44. Affiliated bonds (Schedule D Summary, Line 12, Col. 1)	744,638,614	520,760,496		0	0
45. Affiliated preferred stocks (Schedule D Summary, Line 18, Col. 1)		0	0	0	0
46. Affiliated common stocks (Schedule D Summary Line 24, Col. 1),	445,210,536	401,901,977	384,058,681	352,465,015	359,172,246
47. Affiliated short-term investments (subtotal included in Schedule DA Verification, Col. 5, Line 10)	0	0	0	0	0
48. Affiliated mortgage loans on real estate					
49. All other affiliated	237,992,753	152,544,036		0	0
50. Total of above Lines 44 to 49	1,427,841,903	1,075,206,509	384,058,681	352,465,015	359,172,246
51. Total Investment in Parent included in Lines 44 to 49 above					

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

FIVE-YEAR HISTORICAL DATA

(Continued)

	1 2023	2 2022	3 2021	4 2020	5 2019
Total Nonadmitted and Admitted Assets					
52. Total nonadmitted assets (Page 2, Line 28, Col. 2).....	54,705,054	31,902,708	27,247,217	6,532,837	19,385,066
53. Total admitted assets (Page 2, Line 28, Col. 3)	47,011,449,757	42,883,041,659	38,448,901,775	35,797,152,601	40,018,795,515
Investment Data					
54. Net investment income (Exhibit of Net Investment Income)	1,942,011,351	1,018,987,195	1,950,977,865	1,908,775,201	1,760,782,500
55. Realized capital gains (losses) (Page 4, Line 34, Column 1)	(152,868,129)	(32,534,189)	118,746,759	(218,592,712)	(15,714,408)
56. Unrealized capital gains (losses) (Page 4, Line 38, Column 1)	165,094,149	(200,664,475)	25,495,993	66,352,275	876,991,241
57. Total of above Lines 54, 55 and 56	1,954,237,371	785,788,531	2,095,220,617	1,756,534,764	2,622,059,333
Benefits and Reserve Increases (Page 6)					
58. Total contract/certificate benefits - life (Lines 10, 11, 12, 13, 14 and 15, Col. 1 minus Lines 10, 11,12, 13, 14 and 15, Cols. 6, 7 and 8)	3,178,553,182	1,962,500,163	3,104,931,642	2,948,216,184	2,916,941,968
59. Total contract/certificate benefits - A & H (Lines 13 & 14, Col. 6)	4,296,617	3,804,204	4,181,392	3,826,900	3,627,493
60. Increase in life reserves - other than group and annuities (Line 19, Col. 2)	(15,400,608)	(26,774,113)	(6,802,237)	2,312,245	5,053,173
61. Increase in A & H reserves (Line 19, Col. 6)	1,927,985	(8,218,456)	3,721,264	9,123,912	1,522,102
62. Dividends to policyholders and refunds to members (Line 30, Col. 1)	8,940	10,069	12,787	10,653	11,141
Operating Percentages					
63. Insurance expense percent (Page 6, Col. 1, Lines 21, 22 & 23, less Line 6)/(Page 6, Col. 1, Line 1 plus Exhibit 7, Col. 2, Line 2) x 100.0	5.8	(0.4)	9.6	(12.0)	(3.6)
64. Lapse percent (ordinary only) [(Exhibit of Life Insurance, Col. 4, Lines 14 & 15) / 1/2 (Exhibit of Life Insurance, Col. 4, Lines 1 & 21)] x 100.0	20.8	23.5	10.6	13.5	11.6
65. A & H loss percent (Schedule H, Part 1, Lines 5 and 6, Col. 2)	195.6	173.2	147.5	118.4	149.6
66. A & H cost containment percent (Schedule H, Pt. 1, Line 4, Col. 2)	0.0	0.0	0.0	0.0	0.0
67. A & H expense percent excluding cost containment expenses (Schedule H, Pt. 1, Line 10, Col. 2)	17.8	17.6	21.7	38.1	29.5
A & H Claim Reserve Adequacy					
68. Incurred losses on prior years' claims - comprehensive group health (Sch. H, Part 3, Line 3.1 Col. 3)	0		XXX	XXX	XXX
69. Prior years' claim liability and reserve - comprehensive group health (Sch. H, Part 3, Line 3.2 Col. 3)	0		XXX	XXX	XXX
70. Incurred losses on prior years' claims-health other than comprehensive group health (Sch. H, Part 3, Line 3.1 Col. 1 less Col. 3)	12,791,329	12,381,135	XXX	XXX	XXX
71. Prior years' claim liability and reserve-health other than comprehensive group health (Sch. H, Part 3, Line 3.2 Col. 1 less Col. 3)	12,696,171	11,888,136	XXX	XXX	XXX
Net Gains From Operations After Dividends to Policyholders, Refunds to Members, Federal Income Taxes and Before Realized Capital Gains or (Losses) by Lines of Business (Page 6.x, Line 33)					
72. Individual industrial life (Page 6.1, Col. 2)	0	0			
73. Individual whole life (Page 6.1, Col. 3)	(1,483,126)	(1,726,556)	(149,466)	3,964,617	(1,734,786)
74. Individual term life (Page 6.1, Col. 4)	(9,699,791)	479,737	1,060,208	(2,907,204)	(4,913,277)
75. Individual indexed life (Page 6.1, Col. 5)	0	0			
76. Individual universal life (Page 6.1, Col. 6)	340,341	(1,463,909)	187,115	(2,780,375)	1,104,385
77. Individual universal life with secondary guarantees (Page 6.1, Col. 7)	0	0			
78. Individual variable life (Page 6.1, Col. 8)	0	0			
79. Individual variable universal life (Page 6.1, Col. 9)	0	0			
80. Individual credit life (Page 6.1, Col. 10)	0	0			
81. Individual other life (Page 6.1, Col. 11)	0	0			
82. Individual YRT mortality risk only (Page 6.1, Col. 12)	0	0			
83. Group whole life (Page 6.2, Col. 2)	(192,740)	(263,683)	(276,770)	(237,284)	(7,040)
84. Group term life (Page 6.2, Col. 3)	0	0			
85. Group universal life (Page 6.2, Col. 4)	0	0			
86. Group variable life (Page 6.2, Col. 5)	0	0			
87. Group variable universal life (Page 6.2, Col. 6)	0	0			
88. Group credit life (Page 6.2, Col. 7)	0	0			
89. Group other life (Page 6.2, Col. 8)	0	0			
90. Group YRT mortality risk only (Page 6.2, Col. 9)	0	0			
91. Individual deferred fixed annuities (Page 6.3, Col. 2)	95,325,096	(391,125,675)	96,499,787	100,487,830	164,033,129
92. Individual deferred indexed annuities (Page 6.3, Col. 3)	89,585,350	577,799,744	98,620,302	282,908,376	(143,063,103)
93. Individual deferred variable annuities with guarantees (Page 6.3, Col. 4)	0	0			
94. Individual deferred variable annuities without guarantees (Page 6.3, Col. 5)	0	0			
95. Individual life contingent payout (immediate and annuitization) (Page 6.3, Col. 6)	(26,595,779)	(16,784,496)	1,010,863	1,255,019	2,828,009
96. Individual other annuities (Page 6.3, Col. 7)	0	0			
97. Group deferred fixed annuities (Page 6.4, Col. 2)	(15,454,806)	(5,581,913)	12,868,649	11,723,076	9,904,191
98. Group deferred indexed annuities (Page 6.4, Col. 3)	0	0			
99. Group deferred variable annuities with guarantees (Page 6.4, Col. 4)	0	0			
100. Group deferred variable annuities without guarantees (Page 6.4, Col. 5)	0	0			
101. Group life contingent payout (immediate and annuitization) (Page 6.4, Col. 6)	41,273,396	22,333,512	4,787,588	11,810,113	1,302,675
102. Group other annuities (Page 6.4, Col. 7)	0	0			
103. A & H-comprehensive individual (Page 6.5, Col. 2)	0	0			
104. A & H-comprehensive group (Page 6.5, Col. 3)	0	0	159,596	(159,596)	0
105. A & H-Medicare supplement (Page 6.5, Col. 4)	0	0			
106. A & H-vision only (Page 6.5, Col. 5)	0	0			
107. A & H-dental only (Page 6.5, Col. 6)	0	0			
108. A & H-Federal employees health benefits plan (Page 6.5, Col. 7)	0	0			
109. A & H-Title XVIII Medicare (Page 6.5, Col. 8)	0	0			
110. A & H-Title XIX Medicaid (Page 6.5, Col. 9)	0	0			
111. A & H-credit (Page 6.5, Col. 10)	0	0			
112. A & H-disability income (Page 6.5, Col. 11)	0	0			
113. A & H-long-term care (Page 6.5, Col. 12)	(974,307)	6,894,334	(4,500,794)	(3,378,180)	(152,947)
114. A & H-other (Page 6.5, Col. 13)	0	0			
115. Aggregate of all other lines of business (Page 6, Col. 8)	0	0			
116. Fraternal (Page 6, Col. 7)	0	0			
117. Total (Page 6, Col. 1)	172,123,634	190,561,095	210,267,078	402,686,392	29,301,236

NOTE: If a party to a merger, have the two most recent years of this exhibit been restated due to a merger in compliance with the disclosure requirements of SSAP No. 3, Accounting Changes and Correction of Errors? Yes [] No [X]

If no, please explain: The Company was not a party to a merger.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT OF LIFE INSURANCE

(\$000 Omitted for Amounts of Life Insurance)

	Industrial		Ordinary		Credit Life (Group and Individual)		Group			10 Total Amount of Insurance
	1	2	3	4	5	6	Number of		9	
	Number of Policies	Amount of Insurance	Number of Policies	Amount of Insurance	Number of Individual Policies and Group Certificates	Amount of Insurance	7 Policies	8 Certificates	Amount of Insurance	
1. In force end of prior year	0	0	48,177	5,091,738	0	0	15	2,395	13,781	5,105,519
2. Issued during year		0	24	1,976		0			0	1,976
3. Reinsurance assumed										0
4. Revived during year			5	529						529
5. Increased during year (net)				1,095					132	1,227
6. Subtotals, Lines 2 to 5	0	0	29	3,600	0	0	0	0	132	3,732
7. Additions by dividends during year	XXX		XXX		XXX		XXX	XXX		0
8. Aggregate write-ins for increases	0	0	0	0	0	0	0	0	0	0
9. Totals (Lines 1 and 6 to 8)	0	0	48,206	5,095,338	0	0	15	2,395	13,913	5,109,251
Deductions during year:										
10. Death			1,487	37,796			XXX	161	1,033	38,829
11. Maturity			33	179			XXX	4	29	208
12. Disability							XXX			0
13. Expiry			169	3,766						3,766
14. Surrender			531	43,291				33	95	43,386
15. Lapse			2,267	910,886			1	7	61	910,947
16. Conversion			14	8,391			XXX	XXX	XXX	8,391
17. Decreased (net)				16,800						16,800
18. Reinsurance										0
19. Aggregate write-ins for decreases	0	0	0	0	0	0	0	0	0	0
20. Totals (Lines 10 to 19)	0	0	4,501	1,021,109	0	0	1	205	1,218	1,022,327
21. In force end of year (b) (Line 9 minus Line 20)	0	0	43,705	4,074,229	0	0	14	2,190	12,695	4,086,924
22. Reinsurance ceded end of year	XXX		XXX	2,230,749	XXX		XXX	XXX	9,795	2,240,544
23. Line 21 minus Line 22	XXX	0	XXX	1,843,480	XXX	(a) 0	XXX	XXX	2,900	1,846,380
DETAILS OF WRITE-INS										
0801.										
0802.										
0803.										
0898. Summary of remaining write-ins for Line 8 from overflow page	0	0	0	0	0	0	0	0	0	0
0899. TOTALS (Lines 0801 thru 0803 plus 0898) (Line 8 above)	0	0	0	0	0	0	0	0	0	0
1901.										
1902.										
1903.										
1998. Summary of remaining write-ins for Line 19 from overflow page	0	0	0	0	0	0	0	0	0	0
1999. TOTALS (Lines 1901 thru 1903 plus 1998) (Line 19 above)	0	0	0	0	0	0	0	0	0	0

Life, Accident and Health Companies Only:

(a) Group \$; Individual \$

Fraternal Benefit Societies Only:

(b) Paid-up insurance included in the final totals of Line 21 (including additions to certificates) number of certificates , Amount \$

Additional accidental death benefits included in life certificates were in amount \$, Does the society collect any contributions from members for general expenses of the society under fully paid-up certificates? Yes [] No []

If not, how are such expenses met?

.....

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT OF LIFE INSURANCE

(\$000 Omitted for Amounts of Life Insurance) (Continued)
ADDITIONAL INFORMATION ON INSURANCE IN FORCE END OF YEAR

	Industrial		Ordinary	
	1 Number of Policies	2 Amount of Insurance	3 Number of Policies	4 Amount of Insurance
24. Additions by dividends	XXX.....	.....	XXX.....	.....
25. Other paid-up insurance .....	.....	.....	7,467.....	28,726.....
26. Debit ordinary insurance	XXX.....	XXX.....	.....	.....

ADDITIONAL INFORMATION ON ORDINARY INSURANCE

Term Insurance Excluding Extended Term Insurance	Issued During Year (Included in Line 2)		In Force End of Year (Included in Line 21)	
	1 Number of Policies	2 Amount of Insurance	3 Number of Policies	4 Amount of Insurance
27. Term policies - decreasing .....	.....	.....	130.....	1,533.....
28. Term policies - other .....	.....	.....	12,129.....	2,725,451.....
29. Other term insurance - decreasing	XXX.....	.....	XXX.....	34.....
30. Other term insurance	XXX.....	150.....	XXX.....	319,247.....
31. Totals (Lines 27 to 30)	0.....	150.....	12,259.....	3,046,265.....
Reconciliation to Lines 2 and 21:				
32. Term additions	XXX.....	.....	XXX.....	.....
33. Totals, extended term insurance	XXX.....	XXX.....	1,428.....	9,162.....
34. Totals, whole life and endowment	24.....	1,826.....	30,018.....	1,018,803.....
35. Totals (Lines 31 to 34)	24.....	1,976.....	43,705.....	4,074,230.....

CLASSIFICATION OF AMOUNT OF INSURANCE BY PARTICIPATING STATUS

	Issued During Year (Included in Line 2)		In Force End of Year (Included in Line 21)	
	1 Non-Participating	2 Participating	3 Non-Participating	4 Participating
36. Industrial .....	.....	.....	.....	.....
37. Ordinary	1,976.....	.....	4,058,349.....	15,879.....
38. Credit Life (Group and Individual) .....	.....	.....	.....	.....
39. Group .....	.....	.....	12,695.....	.....
40. Totals (Lines 36 to 39)	1,976.....	0.....	4,071,044.....	15,879.....

ADDITIONAL INFORMATION ON CREDIT LIFE AND GROUP INSURANCE

	Credit Life		Group	
	1 Number of Individual Policies and Group Certificates	2 Amount of Insurance	3 Number of Certificates	4 Amount of Insurance
41. Amount of insurance included in Line 2 ceded to other companies	XXX.....	.....	XXX.....	.....
42. Number in force end of year if the number under shared groups is counted on a pro-rata basis	XXX.....	45.....	XXX.....
43. Federal Employees' Group Life Insurance included in Line 21
44. Servicemen's Group Life Insurance included in Line 21
45. Group Permanent Insurance included in Line 21	2,146.....	10,939.....

ADDITIONAL ACCIDENTAL DEATH BENEFITS

46. Amount of additional accidental death benefits in force end of year under ordinary policies	67,614.....
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BASIS OF CALCULATION OF ORDINARY TERM INSURANCE

47. State basis of calculation of (47.1) decreasing term insurance contained in Family Income, Mortgage Protection, etc., policies and riders and of (47.2) term insurance on wife and children under Family, Parent and Children, etc., policies and riders included above.
47.1 None
47.2 Actual for spouse, \$1,000 per unit for children

POLICIES WITH DISABILITY PROVISIONS

Disability Provisions	Industrial		Ordinary		Credit		Group	
	1 Number of Policies	2 Amount of Insurance	3 Number of Policies	4 Amount of Insurance	5 Number of Policies	6 Amount of Insurance	7 Number of Certificates	8 Amount of Insurance
48. Waiver of Premium	1,354.....	69,419.....	.....	.....	.....	.....
49. Disability Income	49.....	6,360.....	.....	.....	.....	.....
50. Extended Benefits	XXX.....	XXX.....	.....	.....	.....	.....
51. Other
52. Total	0.....	(a) 0.....	1,403.....	(a) 75,779.....	0.....	(a) 0.....	0.....	(a) 0.....

(a) See the Annual Audited Financial Reports section of the annual statement instructions

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

EXHIBIT OF NUMBER OF POLICIES, CONTRACTS, CERTIFICATES, INCOME PAYABLE AND ACCOUNT VALUES IN FORCE FOR SUPPLEMENTARY CONTRACTS, ANNUITIES, ACCIDENT & HEALTH AND OTHER POLICIES

SUPPLEMENTARY CONTRACTS				
	Ordinary		Group	
	1 Involving Life Contingencies	2 Not Involving Life Contingencies	3 Involving Life Contingencies	4 Not Involving Life Contingencies
1. In force end of prior year	39	18	0	0
2. Issued during year				
3. Reinsurance assumed	1	1		
4. Increased during year (net)				
5. Total (Lines 1 to 4)	40	19	0	0
Deductions during year:				
6. Decreased (net)	1	2		
7. Reinsurance ceded				
8. Totals (Lines 6 and 7)	1	2	0	0
9. In force end of year (line 5 minus line 8)	39	17	0	0
10. Amount on deposit	79,245	(a) 69,892		(a)
11. Income now payable	20	11		
12. Amount of income payable	(a) 100,497	(a) 65,659	(a)	(a)

ANNUITIES				
	Ordinary		Group	
	1 Immediate	2 Deferred	3 Contracts	4 Certificates
1. In force end of prior year	14,023	346,256	274	50,016
2. Issued during year	1,952	56,286	0	0
3. Reinsurance assumed	0	0	0	0
4. Increased during year (net)	0	0	0	0
5. Totals (Lines 1 to 4)	15,975	402,542	274	50,016
Deductions during year:				
6. Decreased (net)	2,339	51,363	0	2,154
7. Reinsurance ceded	0	0	0	0
8. Totals (Lines 6 and 7)	2,339	51,363	0	2,154
9. In force end of year (line 5 minus line 8)	13,636	351,179	274	47,862
Income now payable:				
10. Amount of income payable	(a) 178,857,851	XXX	XXX	(a) 74,319,837
Deferred fully paid:				
11. Account balance	XXX	(a) 26,918,902,377	XXX	(a) 93,699,539
Deferred not fully paid:				
12. Account balance	XXX	(a) 13,332,398,861	XXX	(a) 710,995,218

ACCIDENT AND HEALTH INSURANCE						
	Group		Credit		Other	
	1 Certificates	2 Premiums in Force	3 Policies	4 Premiums in Force	5 Policies	6 Premiums in Force
1. In force end of prior year	10	11,405	0		1,321	3,184,432
2. Issued during year						
3. Reinsurance assumed						
4. Increased during year (net)		XXX		XXX		XXX
5. Totals (Lines 1 to 4)	10	XXX	0	XXX	1,321	XXX
Deductions during year:						
6. Conversions		XXX	XXX	XXX	XXX	XXX
7. Decreased (net)	1	XXX		XXX	68	XXX
8. Reinsurance ceded		XXX		XXX		XXX
9. Totals (Lines 6 to 8)	1	XXX	0	XXX	68	XXX
10. In force end of year (line 5 minus line 9)	9	(a)	0	(a)	1,253	(a) 2,991,955

DEPOSIT FUNDS AND DIVIDEND ACCUMULATIONS			
	1		2
	Deposit Funds		Dividend
	Contracts		Accumulations
1. In force end of prior year	1,937		3,160
2. Issued during year			
3. Reinsurance assumed	4		
4. Increased during year (net)			
5. Totals (Lines 1 to 4)	1,941		3,160
Deductions During Year:			
6. Decreased (net)	81		3
7. Reinsurance ceded			
8. Totals (Lines 6 and 7)	81		3
9. In force end of year (line 5 minus line 8)	1,860		3,157
10. Amount of account balance	(a) 1,840,236	(a)	5,217,656

(a) See the Annual Audited Financial Reports section of the annual statement instructions.

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS ^(b)

Allocated by States and Territories									
States, Etc.			1	Direct Business Only					
				Life Contracts		4	5	6	7
				2	3				
			Active Status (a)	Life Insurance Premiums	Annuity Considerations	Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees	Other Considerations	Total Columns 2 through 5 (b)	Deposit-Type Contracts
1.	Alabama	AL	L	151,538	185,086,672	29,111	0	185,267,321	0
2.	Alaska	AK	L	6,986	2,888,059		0	2,895,045	0
3.	Arizona	AZ	L	464,849	165,777,472	12,513	0	166,254,834	768,131
4.	Arkansas	AR	L	146,391	56,364,471	1,201	0	56,512,063	867,687
5.	California	CA	L	4,300,706	932,757,639	15,440	0	937,073,785	508,105
6.	Colorado	CO	L	204,117	103,896,133	84,412	0	104,184,662	6,844
7.	Connecticut	CT	L	318,530	162,246,594	2,781	0	162,567,905	259,813
8.	Delaware	DE	L	48,410	45,539,844		0	45,588,254	0
9.	District of Columbia	DC	L	23,657	7,639,889		0	7,663,546	0
10.	Florida	FL	L	1,585,345	822,309,433	273,335	0	824,168,113	1,166,616
11.	Georgia	GA	L	701,056	240,246,602	85,098	0	241,032,756	207,657
12.	Hawaii	HI	L	244,584	65,447,360		0	65,691,944	0
13.	Idaho	ID	L	75,867	48,063,446	2,604	0	48,141,917	0
14.	Illinois	IL	L	619,134	279,524,874	137,005	0	280,281,013	265,197
15.	Indiana	IN	L	154,254	196,379,254	141,377	0	196,674,885	249,374
16.	Iowa	IA	L	140,213	65,789,005	103,689	0	66,032,907	0
17.	Kansas	KS	L	98,170	28,911,774	137,780	0	29,147,724	0
18.	Kentucky	KY	L	162,403	104,260,329	164,742	0	104,587,474	0
19.	Louisiana	LA	L	206,283	172,874,908	4,510	0	173,085,701	571,350
20.	Maine	ME	L	67,946	32,513,673	7,321	0	32,588,940	0
21.	Maryland	MD	L	470,760	174,603,421	10,133	0	175,084,314	139,759
22.	Massachusetts	MA	L	404,375	214,837,798		0	215,242,173	1,590,655
23.	Michigan	MI	L	270,521	323,736,516	3,179	0	324,010,216	30,613
24.	Minnesota	MN	L	399,081	130,349,632	5,130	0	130,753,843	122,996
25.	Mississippi	MS	L	124,568	51,983,172	2,932	0	52,110,672	794,531
26.	Missouri	MO	L	286,212	477,400,626	166,178	0	477,853,016	333,889
27.	Montana	MT	L	9,305	7,063,667	6,987	0	7,079,959	260,648
28.	Nebraska	NE	L	168,334	38,867,878	75,294	0	39,111,506	0
29.	Nevada	NV	L	257,096	55,928,413	13,861	0	56,199,370	0
30.	New Hampshire	NH	L	50,474	39,633,817	65,719	0	39,750,010	1,993,666
31.	New Jersey	NJ	L	503,019	383,546,191	6,392	0	384,055,602	958,385
32.	New Mexico	NM	L	205,764	15,815,613		0	16,021,377	37,756
33.	New York	NY	N	122,104	22,885,095	5,460	0	23,012,659	0
34.	North Carolina	NC	L	970,000	351,974,975	1,381,187	0	354,326,162	142,860
35.	North Dakota	ND	L	46,202	22,433,878		0	22,480,080	144,879
36.	Ohio	OH	L	433,316	369,429,347	56,536	0	369,919,199	912,614
37.	Oklahoma	OK	L	502,973	51,256,821	77,266	0	51,837,060	156,126
38.	Oregon	OR	L	99,311	64,311,213	75,293	0	64,485,817	291,112
39.	Pennsylvania	PA	L	984,045	538,660,310	16,215	0	539,660,570	987,456
40.	Rhode Island	RI	L	49,319	55,501,464	10,193	0	55,560,976	0
41.	South Carolina	SC	L	367,459	198,562,591	244,404	0	199,174,454	798,520
42.	South Dakota	SD	L	34,157	20,797,246	25	0	20,831,428	0
43.	Tennessee	TN	L	327,256	276,834,323	189,418	0	277,350,997	0
44.	Texas	TX	L	2,098,951	453,706,783	120,791	0	455,926,525	3,066,305
45.	Utah	UT	L	126,280	70,071,717	40,112	0	70,238,109	122,452
46.	Vermont	VT	L	34,031	16,914,846	20,367	0	16,969,244	0
47.	Virginia	VA	L	758,300	192,162,888	225,331	0	193,146,519	77,923
48.	Washington	WA	L	293,019	176,823,844	148,893	0	177,265,756	861,022
49.	West Virginia	WV	L	108,039	49,260,533	6,023	0	49,374,595	0
50.	Wisconsin	WI	L	217,811	180,809,888	261,370	0	181,289,069	0
51.	Wyoming	WY	L	21,652	7,574,948		0	7,596,600	0
52.	American Samoa	AS	N	0	0		0	0	0
53.	Guam	GU	N	80,325	0		0	80,325	0
54.	Puerto Rico	PR	N	433	20,000		0	20,433	0
55.	U.S. Virgin Islands	VI	N	1,621	0		0	1,621	0
56.	Northern Mariana Islands	MP	N	0	0			0	0
57.	Canada	CAN	N	0	0			0	0
58.	Aggregate Other Alien	OT	XXX	76,516	157,509	625	0	234,650	0
59.	Subtotal	XXX		20,623,068	8,752,434,394	4,438,233	0	8,777,495,695	18,694,941
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		223,397		295,198		518,595	
94.	Aggregate or other amounts not allocable by State	XXX		0	0	0	0	0	0
95.	Totals (Direct Business)	XXX		20,846,465	8,752,434,394	4,733,431	0	8,778,014,290	18,694,941
96.	Plus reinsurance assumed	XXX		2,953,393	884,446	3,003,510		6,841,349	
97.	Totals (All Business)	XXX		23,799,858	8,753,318,840	7,736,941	0	8,784,855,639	18,694,941
98.	Less reinsurance ceded	XXX		10,117,150	260,778,500	4,733,431		275,629,081	48,966
99.	Totals (All Business) less Reinsurance Ceded	XXX		13,682,708	8,492,540,340	(c) 3,003,510	0	8,509,226,558	18,645,975
DETAILS OF WRITE-INS									
58001.	Other Alien	XXX		76,516	157,509	625		234,650	
58002.		XXX							
58003.		XXX							
58998.	Summary of remaining write-ins for Line 58 from overflow page	XXX		0	0	0	0	0	0
58999.	Totals (Lines 58001 through 58003 plus 58998)(Line 58 above)	XXX		76,516	157,509	625	0	234,650	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	0
9499.	Totals (Lines 9401 through 9403 plus 9498)(Line 94 above)	XXX		0	0	0	0	0	0

(a) Active Status Counts:
1. L - Licensed or Chartered - Licensed insurance carrier or domiciled RRG..... 50
2. R - Registered - Non-domiciled RRGs..... 0
3. E - Eligible - Reporting entities eligible or approved to write surplus lines in the state..... 0

(b) Explanation of basis of allocation by states, etc., of premiums and annuity considerations
Annuity considerations from group policies covering fewer than 500 members are allocated based on the situs of the contract. All other premiums and annuity considerations are allocated based on the residence of the policyholders.

(c) Column 4 should balance with Exhibit 1, Lines 6.4, 10.4 and 16.4, Col. 6, or with Schedule H, Part 1, Line 1, indicate which: Exhibit 1, Lines 6.4, 10.4, and 16.4, Col. 6..... 0

4. Q - Qualified - Qualified or accredited reinsurer..... 0
5. N - None of the above - Not allowed to write business in the state..... 7

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

*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
JFIN Fund III LLC	None		Delaware
Jefferies Credit Partners LLC	None		Delaware
Apex Credit Partners LLC	None		Delaware
Jefferies Credit Management LLC	None		Delaware
JCM GP I 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
Senior Credit Investments, 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
JCP Direct Lending CLO 2023-1 LLC	None		Delaware
JCP Direct Lending CLO 2023 Ltd.	None		Jersey Channel Islands
JCP GP I LLC	None		Delaware
Jefferies Private Credit BDC Inc.	None		Maryland
Jefferies Senior Lending LLC	None		Delaware
Jefferies Credit Partners BDC Inc	None		Maryland
JFIN Revolver Holdings LLC	None		Delaware
JFIN Revolver Holdings II 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

52.2

	Federal Tax ID	NAIC Co Code	State of Domicile
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 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
SFL Parkway Funding 2022 LLC	None		Delaware
JCP Private Loan Management GP LLC	None		Delaware
JCP Private Loan Management LP	None		Delaware
Beauty Brands Acquisition Holdings LLC	None		Delaware
Beauty Brands Acquisition LLC	None		Delaware
Beauty Brands Acquisition Intermediate LLC	None		Delaware
Forma Brands, LLC	None		Delaware
Apex Credit Holdings LLC	None		Delaware
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

*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 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 Investment 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
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
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

*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 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 Investment 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
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
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

*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
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
Teaktree Acquisition, 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
Barings North American Private Loan Fund LP	38-4010344		Delaware
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 Southeast Asia I LLC	None		Delaware
MassMutual Ventures Southeast Asia II LLC	None		Delaware
MassMutual Ventures Southeast Asia III LLC	None		Delaware
MMV Digital I LLC	None		Cayman Islands
MassMutual Ventures UK LLC	None		Delaware
MassMutual Ventures US I LLC	47-1296410		Delaware
MassMutual Ventures US II LLC	None		Delaware
MassMutual Ventures US III LLC	None		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
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 Finance 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
Gryphon Capital Management Pty Ltd	None		Australia
Gryphon Capital Investments 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

	Federal Tax ID	NAIC Co Code	State of Domicile
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
Barings Hotel Opportunity Venture I GP, 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>
Baring Investment Series LLC	None		Delaware
Barings Emerging Generation Fund GP, LLC	None		Delaware
Barings Emerging Generation Fund GP II, LLC	None		Delaware
Barings ERS PE Emerging Manager III GP, 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 Direct Lending GP Ltd.	None		Cayman Islands
Barings Global Energy Infrastructure Advisors, 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
BMT RE Debt Fund GP LLC	None		Delaware
Barings Small Business Fund LLC	84-5063008		Delaware
Barings Active Passive Equity Direct EAFE 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
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
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

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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
Haven Technologies Asia Limited	None		Hong Kong
Yunfeng Financial Group Limited	None		Hong Kong
MassMutual Asia Limited (SPV)	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 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 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
Cornerstone Permanent Mortgage Fund LLC	45-2632610		Massachusetts
CREA Ridge Apartments, 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
VGS Acquisition Holding, LLC	None		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

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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 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
Barings Euro CLO 2022-I DAC	None		Ireland
Barings Euro CLO 2023-II DAC	None		Ireland
Barings Global Em. Markets Equity Fund	82-5330194		North Carolina
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 Global Technology Equity Fund	None		Ireland
Barings Global Dividends Champion Fund	None		Ireland
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 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

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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
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 Limited	None		Bermuda
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
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

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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 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	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
MM National Self-Storage Program Member LLC	04-1590850		Delaware
MM 1400 E 4th Street Member 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 Fundamental Growth Fund	04-3512593		Massachusetts
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

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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>
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
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

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ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Assets Line 25

	Current Year			Prior Year
	1	2	3	4
	Assets	Nonadmitted Assets	Net Admitted Assets (Cols. 1 - 2)	Net Admitted Assets
2504. Accounts receivable	15,451,114	8,955,194	6,495,920	
2597. Summary of remaining write-ins for Line 25 from overflow page	15,451,114	8,955,194	6,495,920	0

Additional Write-ins for Summary of Operations Line 8.3

	1	2
	Current Year	Prior Year
08.304. Miscellaneous income	54,818	87,840
08.397. Summary of remaining write-ins for Line 8.3 from overflow page	54,818	87,840

ANNUAL STATEMENT FOR THE YEAR 2023 OF THE MASSMUTUAL ASCEND LIFE INSURANCE COMPANY

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Analysis of Operations - Summary Line 8.3

	1	2	3	4	5	6	7	8	9
	Total	Individual Life	Group Life	Individual Annuities	Group Annuities	Accident and Health	Fraternal	Other Lines of Business	YRT Mortality Risk Only
08.304. Miscellaneous income	54,818			52,279	2,539				
08.397. Summary of remaining write-ins for Line 8.3 from overflow page	54,818	0	0	52,279	2,539	0	0	0	0