



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

QUARTERLY STATEMENT

AS OF JUNE 30, 2023

OF THE CONDITION AND AFFAIRS OF THE

MANHATTAN NATIONAL LIFE INSURANCE COMPANY

NAIC Group Code 0435 (Current) 0435 (Prior) NAIC Company Code 67083 Employer's ID Number 45-0252531

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 12/20/1956 Commenced Business 01/04/1957

Statutory Home Office 191 Rosa Parks Street Cincinnati, OH, US 45202 (Street and Number) (City or Town, State, Country and Zip Code)

Main Administrative Office 191 Rosa Parks Street Cincinnati, OH, US 45202 (Street and Number) (City or Town, State, Country and Zip Code) 513-361-9000 (Area Code) (Telephone Number)

Mail Address Post Office Box 5420 Cincinnati, OH, US 45201 (Street and Number or P.O. Box) (City or Town, State, Country and Zip Code)

Primary Location of Books and Records 191 Rosa Parks Street Cincinnati, OH, US 45202 (Street and Number) (City or Town, State, Country and Zip Code) 513-361-9000 (Area Code) (Telephone Number)

Internet Website Address www.massmutualascend.com

Statutory Statement Contact Robert Mayhew Earle II 513-361-9077 (Name) (Area Code) (Telephone Number) rearle@mmascend.com 513-345-9484 (E-mail Address) (FAX Number)

OFFICERS

President Mark Francis Muething Treasurer Brian Patrick Sponaugle Secretary John Paul Gruber Appointed Actuary Dominic Joseph Moster

OTHER

Dominic Lusean Blue # Donna Marie Carrelli Michael Harrison Haney #

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 SS: County of Hamilton

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

Mark Francis Muething President John Paul Gruber Secretary Brian Patrick Sponaugle Treasurer

Subscribed and sworn to before me this 11th day of August 2023

SHERRI L BARNES Notary Public State of Ohio My Comm. Expires August 9, 2025

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

Yes [X] No []

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

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

ASSETS

| | Current Statement Date | | | 4 December 31 Prior Year Net Admitted Assets |
|---|------------------------|-------------------------|---|---|
| | 1 Assets | 2 Nonadmitted Assets | 3 Net Admitted Assets (Cols. 1 - 2) | |
| 1. Bonds | 115,236,945 | | 115,236,945 | 111,899,872 |
| 2. Stocks: | | | | |
| 2.1 Preferred stocks | | | 0 | 0 |
| 2.2 Common stocks | | | 0 | 0 |
| 3. Mortgage loans on real estate: | | | | |
| 3.1 First liens | | | 0 | 0 |
| 3.2 Other than first liens..... | | | 0 | 0 |
| 4. Real estate: | | | | |
| 4.1 Properties occupied by the company (less \$ encumbrances) | | | 0 | 0 |
| 4.2 Properties held for the production of income (less \$ encumbrances) | | | 0 | 0 |
| 4.3 Properties held for sale (less \$ encumbrances) | | | 0 | 0 |
| 5. Cash (\$2,304,655), cash equivalents (\$ 6,128,330) and short-term investments (\$) | 8,432,985 | | 8,432,985 | 14,534,897 |
| 6. Contract loans (including \$ premium notes) | 4,244,211 | | 4,244,211 | 4,408,517 |
| 7. Derivatives | | | 0 | 0 |
| 8. Other invested assets | | | 0 | 0 |
| 9. Receivables for securities | 195,087 | 195,087 | 0 | 0 |
| 10. Securities lending reinvested collateral assets | | | 0 | 0 |
| 11. Aggregate write-ins for invested assets | 0 | 0 | 0 | 0 |
| 12. Subtotals, cash and invested assets (Lines 1 to 11) | 128,109,228 | 195,087 | 127,914,141 | 130,843,286 |
| 13. Title plants less \$ charged off (for Title insurers only) | | | 0 | |
| 14. Investment income due and accrued | 1,415,675 | | 1,415,675 | 1,420,376 |
| 15. Premiums and considerations: | | | | |
| 15.1 Uncollected premiums and agents' balances in the course of collection | 155,662 | 12,132 | 143,530 | 164,846 |
| 15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ earned but unbilled premiums) | 3,117,102 | 16,152 | 3,100,950 | 3,174,410 |
| 15.3 Accrued retrospective premiums (\$) and contracts subject to redetermination (\$) | | | 0 | 0 |
| 16. Reinsurance: | | | | |
| 16.1 Amounts recoverable from reinsurers | 197,763 | | 197,763 | 335,104 |
| 16.2 Funds held by or deposited with reinsured companies | | | 0 | 0 |
| 16.3 Other amounts receivable under reinsurance contracts | | | 0 | 0 |
| 17. Amounts receivable relating to uninsured plans | | | 0 | 0 |
| 18.1 Current federal and foreign income tax recoverable and interest thereon | 90,187 | | 90,187 | 0 |
| 18.2 Net deferred tax asset | | | 0 | 0 |
| 19. Guaranty funds receivable or on deposit | 94,743 | | 94,743 | 106,455 |
| 20. Electronic data processing equipment and software | | | 0 | 0 |
| 21. Furniture and equipment, including health care delivery assets (\$) | | | 0 | 0 |
| 22. Net adjustment in assets and liabilities due to foreign exchange rates | | | 0 | 0 |
| 23. Receivables from parent, subsidiaries and affiliates | | | 0 | 90,170 |
| 24. Health care (\$) and other amounts receivable | | | 0 | 0 |
| 25. Aggregate write-ins for other than invested assets | 192 | 0 | 192 | 784 |
| 26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) | 133,180,552 | 223,371 | 132,957,181 | 136,135,431 |
| 27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts | | | 0 | 0 |
| 28. Total (Lines 26 and 27) | 133,180,552 | 223,371 | 132,957,181 | 136,135,431 |
| DETAILS OF WRITE-INS | | | | |
| 1101. | | | | |
| 1102. | | | | |
| 1103. | | | | |
| 1198. Summary of remaining write-ins for Line 11 from overflow page | 0 | 0 | 0 | 0 |
| 1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above) | 0 | 0 | 0 | 0 |
| 2501. Miscellaneous receivable | 192 | 0 | 192 | 784 |
| 2502. | | | | |
| 2503. | | | | |
| 2598. Summary of remaining write-ins for Line 25 from overflow page | 0 | 0 | 0 | 0 |
| 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) | 192 | 0 | 192 | 784 |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

LIABILITIES, SURPLUS AND OTHER FUNDS

| | 1 Current Statement Date | 2 December 31 Prior Year |
|---|--------------------------------|--------------------------------|
| 1. Aggregate reserve for life contracts \$ 57,796,615 less \$ included in Line 6.3 (including \$ Modco Reserve) | 57,796,615 | 58,721,823 |
| 2. Aggregate reserve for accident and health contracts (including \$ Modco Reserve) | 65,764 | 64,464 |
| 3. Liability for deposit-type contracts (including \$ Modco Reserve)..... | 2,598,390 | 2,748,937 |
| 4. Contract claims: | | |
| 4.1 Life | 3,723,863 | 4,490,322 |
| 4.2 Accident and health | | |
| 5. Policyholders' dividends/refunds to members \$ and coupons \$ due and unpaid | | |
| 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) | 9,000 | 9,000 |
| 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 \$ accident and health premiums | 44,950 | 72,465 |
| 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 \$ 0 assumed and \$ 54,382 ceded | 54,382 | 60,098 |
| 9.4 Interest Maintenance Reserve | 2,724,610 | 2,940,884 |
| 10. Commissions to agents due or accrued-life and annuity contracts \$0 , accident and health \$ and deposit-type contract funds \$ | | 0 |
| 11. Commissions and expense allowances payable on reinsurance assumed | | |
| 12. General expenses due or accrued | 81,823 | 81,824 |
| 13. Transfers to Separate Accounts due or accrued (net) (including \$ 0 accrued for expense allowances recognized in reserves, net of reinsured allowances) | | 0 |
| 14. Taxes, licenses and fees due or accrued, excluding federal income taxes | 311,566 | 401,431 |
| 15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses) | | 92,976 |
| 15.2 Net deferred tax liability | | 0 |
| 16. Unearned investment income | 36,901 | 38,775 |
| 17. Amounts withheld or retained by reporting entity as agent or trustee | 13,508 | 7,666 |
| 18. Amounts held for agents' account, including \$ 455,909 agents' credit balances | 455,909 | 429,926 |
| 19. Remittances and items not allocated | 1,634,795 | 1,246,479 |
| 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 | 676,902 | 891,636 |
| 24.02 Reinsurance in unauthorized and certified (\$) companies | | |
| 24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers | | 0 |
| 24.04 Payable to parent, subsidiaries and affiliates | 80,466 | 0 |
| 24.05 Drafts outstanding | | |
| 24.06 Liability for amounts held under uninsured plans | | |
| 24.07 Funds held under coinsurance | 46,384,185 | 47,323,547 |
| 24.08 Derivatives | 0 | |
| 24.09 Payable for securities | | 0 |
| 24.10 Payable for securities lending | | |
| 24.11 Capital notes \$ and interest thereon \$ | | |
| 25. Aggregate write-ins for liabilities | 484,504 | 401,184 |
| 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) | 117,178,133 | 120,023,437 |
| 27. From Separate Accounts Statement | | 0 |
| 28. Total liabilities (Lines 26 and 27) | 117,178,133 | 120,023,437 |
| 29. Common capital stock | 2,500,000 | 2,500,000 |
| 30. Preferred capital stock | | 0 |
| 31. Aggregate write-ins for other than special surplus funds | 0 | 0 |
| 32. Surplus notes | | 0 |
| 33. Gross paid in and contributed surplus | 132,467,887 | 132,467,887 |
| 34. Aggregate write-ins for special surplus funds | 0 | 0 |
| 35. Unassigned funds (surplus) | (119,188,839) | (118,855,893) |
| 36. Less treasury stock, at cost: | | |
| 36.1 shares common (value included in Line 29 \$) | | 0 |
| 36.2 shares preferred (value included in Line 30 \$) | | 0 |
| 37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) | 13,279,048 | 13,611,994 |
| 38. Totals of Lines 29, 30 and 37 | 15,779,048 | 16,111,994 |
| 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) | 132,957,181 | 136,135,431 |
| DETAILS OF WRITE-INS | | |
| 2501. Unclaimed funds | 484,504 | 401,184 |
| 2502. | | |
| 2503. | | |
| 2598. Summary of remaining write-ins for Line 25 from overflow page | 0 | 0 |
| 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) | 484,504 | 401,184 |
| 3101. | | |
| 3102. | | |
| 3103. | | |
| 3198. Summary of remaining write-ins for Line 31 from overflow page | 0 | 0 |
| 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) | 0 | 0 |
| 3401. | | |
| 3402. | | |
| 3403. | | |
| 3498. Summary of remaining write-ins for Line 34 from overflow page | 0 | 0 |
| 3499. Totals (Lines 3401 through 3403 plus 3498)(Line 34 above) | 0 | 0 |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SUMMARY OF OPERATIONS

| | 1 | 2 | 3 |
|--|-------------------------|-----------------------|---------------------------------|
| | Current Year To Date | Prior Year To Date | Prior Year Ended December 31 |
| 1. Premiums and annuity considerations for life and accident and health contracts | 2,470,245 | 2,474,222 | 4,835,795 |
| 2. Considerations for supplementary contracts with life contingencies | | | |
| 3. Net investment income | 1,728,813 | 1,561,125 | 3,441,232 |
| 4. Amortization of Interest Maintenance Reserve (IMR) | 162,964 | 172,388 | 344,757 |
| 5. Separate Accounts net gain from operations excluding unrealized gains or losses | | | |
| 6. Commissions and expense allowances on reinsurance ceded | 231,648 | 269,808 | 534,882 |
| 7. Reserve adjustments on reinsurance ceded | | | |
| 8. Miscellaneous Income: | | | |
| 8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts..... | | | |
| 8.2 Charges and fees for deposit-type contracts | | | |
| 8.3 Aggregate write-ins for miscellaneous income | 0 | 0 | 0 |
| 9. Totals (Lines 1 to 8.3) | 4,593,670 | 4,477,543 | 9,156,666 |
| 10. Death benefits | 3,106,066 | 4,585,904 | 8,095,271 |
| 11. Matured endowments (excluding guaranteed annual pure endowments) | 3,410 | | 146 |
| 12. Annuity benefits | 481,658 | 613,384 | 668,120 |
| 13. Disability benefits and benefits under accident and health contracts | | | 0 |
| 14. Coupons, guaranteed annual pure endowments and similar benefits | | | |
| 15. Surrender benefits and withdrawals for life contracts | 734,287 | 726,432 | 2,514,608 |
| 16. Group conversions | | | 0 |
| 17. Interest and adjustments on contract or deposit-type contract funds | 17,180 | 19,308 | 23,268 |
| 18. Payments on supplementary contracts with life contingencies | | | 0 |
| 19. Increase in aggregate reserves for life and accident and health contracts | (923,907) | (1,832,314) | (3,978,589) |
| 20. Totals (Lines 10 to 19) | 3,418,694 | 4,112,714 | 7,322,824 |
| 21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only) | 101,336 | 109,215 | 214,151 |
| 22. Commissions and expense allowances on reinsurance assumed | | | 0 |
| 23. General insurance expenses and fraternal expenses | 596,728 | 697,234 | 1,315,007 |
| 24. Insurance taxes, licenses and fees, excluding federal income taxes | 134,831 | 199,562 | 474,728 |
| 25. Increase in loading on deferred and uncollected premiums | (1,068) | (352) | (183) |
| 26. Net transfers to or (from) Separate Accounts net of reinsurance | | | |
| 27. Aggregate write-ins for deductions | 362,956 | 248,437 | 506,212 |
| 28. Totals (Lines 20 to 27) | 4,613,477 | 5,366,810 | 9,832,739 |
| 29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28) | (19,807) | (889,267) | (676,073) |
| 30. Dividends to policyholders and refunds to members | 11,019 | 11,520 | 22,697 |
| 31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30) | (30,826) | (900,787) | (698,770) |
| 32. Federal and foreign income taxes incurred (excluding tax on capital gains) | (119,086) | (268,042) | (333,358) |
| 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) | 88,260 | (632,745) | (365,412) |
| 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ (124,477) (excluding taxes of \$ (14,171) transferred to the IMR) | (481,891) | 83 | (9,083) |
| 35. Net income (Line 33 plus Line 34) | (393,631) | (632,662) | (374,495) |
| CAPITAL AND SURPLUS ACCOUNT | | | |
| 36. Capital and surplus, December 31, prior year | 16,111,994 | 13,092,658 | 13,092,658 |
| 37. Net income (Line 35) | (393,631) | (632,662) | (374,495) |
| 38. Change in net unrealized capital gains (losses) less capital gains tax of \$ 0 | | (48,125) | 36,988 |
| 39. Change in net unrealized foreign exchange capital gain (loss) | | | |
| 40. Change in net deferred income tax | (1) | (24,527) | (2,542,614) |
| 41. Change in nonadmitted assets | (154,047) | 7,131 | 1,243,604 |
| 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 | | | |
| 44. Change in asset valuation reserve | 214,733 | (35,920) | (344,147) |
| 45. Change in treasury stock | | | |
| 46. Surplus (contributed to) withdrawn from Separate Accounts during period | | | |
| 47. Other changes in surplus in Separate Accounts Statement | | | |
| 48. Change in surplus notes | | | 0 |
| 49. Cumulative effect of changes in accounting principles | | | |
| 50. Capital changes: | | | |
| 50.1 Paid in | | | 0 |
| 50.2 Transferred from surplus (Stock Dividend) | | | |
| 50.3 Transferred to surplus | | | |
| 51. Surplus adjustment: | | | |
| 51.1 Paid in | 0 | 0 | 5,000,000 |
| 51.2 Transferred to capital (Stock Dividend) | | | |
| 51.3 Transferred from capital | | | |
| 51.4 Change in surplus as a result of reinsurance | | | 0 |
| 52. Dividends to stockholders | | | 0 |
| 53. Aggregate write-ins for gains and losses in surplus | 0 | 0 | 0 |
| 54. Net change in capital and surplus for the year (Lines 37 through 53) | (332,946) | (734,103) | 3,019,336 |
| 55. Capital and surplus, as of statement date (Lines 36 + 54) | 15,779,048 | 12,358,555 | 16,111,994 |
| DETAILS OF WRITE-INS | | | |
| 08.301. - | | | 0 |
| 08.302. | | | |
| 08.303. | | | |
| 08.398. Summary of remaining write-ins for Line 8.3 from overflow page | 0 | 0 | 0 |
| 08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) | 0 | 0 | 0 |
| 2701. Reinsurance administration agreement expense | 362,956 | 248,437 | 506,212 |
| 2702. | | | |
| 2703. | | | |
| 2798. Summary of remaining write-ins for Line 27 from overflow page | 0 | 0 | 0 |
| 2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above) | 362,956 | 248,437 | 506,212 |
| 5301. - | | | 0 |
| 5302. | | | |
| 5303. | | | |
| 5398. Summary of remaining write-ins for Line 53 from overflow page | 0 | 0 | 0 |
| 5399. Totals (Lines 5301 through 5303 plus 5398)(Line 53 above) | 0 | 0 | 0 |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

CASH FLOW

| | 1 Current Year To Date | 2 Prior Year To Date | 3 Prior Year Ended December 31 |
|---|------------------------------|----------------------------|--------------------------------------|
| Cash from Operations | | | |
| 1. Premiums collected net of reinsurance | 2,543,441 | 2,588,133 | 5,031,047 |
| 2. Net investment income | 1,584,132 | 1,368,108 | 3,084,160 |
| 3. Miscellaneous income | 231,648 | 269,808 | 534,882 |
| 4. Total (Lines 1 to 3) | 4,359,221 | 4,226,049 | 8,650,089 |
| 5. Benefit and loss related payments | 4,960,255 | 7,119,083 | 11,773,342 |
| 6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts | 0 | 0 | 0 |
| 7. Commissions, expenses paid and aggregate write-ins for deductions | 1,274,005 | 1,296,618 | 2,413,036 |
| 8. Dividends paid to policyholders | 3,064 | 3,213 | 6,101 |
| 9. Federal and foreign income taxes paid (recovered) net of \$ (138,648) tax on capital gains (losses) | (74,570) | (217,861) | (562,866) |
| 10. Total (Lines 5 through 9) | 6,162,754 | 8,201,053 | 13,629,613 |
| 11. Net cash from operations (Line 4 minus Line 10) | (1,803,533) | (3,975,004) | (4,979,524) |
| Cash from Investments | | | |
| 12. Proceeds from investments sold, matured or repaid: | | | |
| 12.1 Bonds | 10,056,641 | 3,948,979 | 8,831,270 |
| 12.2 Stocks | 0 | 0 | 0 |
| 12.3 Mortgage loans | 0 | 0 | 0 |
| 12.4 Real estate | 0 | 0 | 0 |
| 12.5 Other invested assets | 0 | 0 | 0 |
| 12.6 Net gains or (losses) on cash, cash equivalents and short-term investments | 0 | 0 | (36) |
| 12.7 Miscellaneous proceeds | 0 | 0 | 0 |
| 12.8 Total investment proceeds (Lines 12.1 to 12.7) | 10,056,641 | 3,948,979 | 8,831,234 |
| 13. Cost of investments acquired (long-term only): | | | |
| 13.1 Bonds | 13,920,506 | 13,778,842 | 14,016,958 |
| 13.2 Stocks | 0 | 0 | 0 |
| 13.3 Mortgage loans | 0 | 0 | 0 |
| 13.4 Real estate | 0 | 0 | 0 |
| 13.5 Other invested assets | 0 | 0 | 0 |
| 13.6 Miscellaneous applications | 160,799 | 851,419 | 1,002,961 |
| 13.7 Total investments acquired (Lines 13.1 to 13.6) | 14,081,305 | 14,630,261 | 15,019,919 |
| 14. Net increase (or decrease) in contract loans and premium notes | (164,306) | (228,658) | (320,109) |
| 15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14) | (3,860,358) | (10,452,624) | (5,868,576) |
| Cash from Financing and Miscellaneous Sources | | | |
| 16. Cash provided (applied): | | | |
| 16.1 Surplus notes, capital notes | 0 | 0 | 0 |
| 16.2 Capital and paid in surplus, less treasury stock | 0 | 0 | 5,000,000 |
| 16.3 Borrowed funds | 0 | 0 | 0 |
| 16.4 Net deposits on deposit-type contracts and other insurance liabilities | (175,683) | 671,211 | 1,275,548 |
| 16.5 Dividends to stockholders | 0 | 0 | 0 |
| 16.6 Other cash provided (applied) | (262,338) | (2,030,811) | (3,868,471) |
| 17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6) | (438,021) | (1,359,600) | 2,407,077 |
| RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS | | | |
| 18. Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17) . | (6,101,912) | (15,787,228) | (8,441,023) |
| 19. Cash, cash equivalents and short-term investments: | | | |
| 19.1 Beginning of year | 14,534,897 | 22,975,920 | 22,975,920 |
| 19.2 End of period (Line 18 plus Line 19.1) | 8,432,985 | 7,188,692 | 14,534,897 |

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

| | | | |
|---|--|--|---------|
| 20.0001. Bond conversions and refinancing | | | 238,116 |
|---|--|--|---------|

EXHIBIT 1

| DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS | | | |
|---|------------------------------|----------------------------|--------------------------------------|
| | 1 Current Year To Date | 2 Prior Year To Date | 3 Prior Year Ended December 31 |
| 1. Industrial life | | | 0 |
| 2. Ordinary life insurance | 5,499,644 | 5,733,702 | 11,470,490 |
| 3. Ordinary individual annuities | 67,369 | 103,618 | 125,989 |
| 4. Credit life (group and individual) | | | 0 |
| 5. Group life insurance | | 0 | 0 |
| 6. Group annuities | | 0 | 0 |
| 7. A & H - group | | 0 | 0 |
| 8. A & H - credit (group and individual) | | | 0 |
| 9. A & H - other | 33,909 | 35,256 | 69,530 |
| 10. Aggregate of all other lines of business | 0 | 0 | 0 |
| 11. Subtotal (Lines 1 through 10) | 5,600,922 | 5,872,576 | 11,666,009 |
| 12. Fraternal (Fraternal Benefit Societies Only) | | 0 | 0 |
| 13. Subtotal (Lines 11 through 12) | 5,600,922 | 5,872,576 | 11,666,009 |
| 14. Deposit-type contracts | 0 | 0 | 0 |
| 15. Total (Lines 13 and 14) | 5,600,922 | 5,872,576 | 11,666,009 |
| DETAILS OF WRITE-INS | | | |
| 1001. | | | |
| 1002. | | | |
| 1003. | | | |
| 1098. Summary of remaining write-ins for Line 10 from overflow page | 0 | 0 | 0 |
| 1099. Totals (Lines 1001 through 1003 plus 1098)(Line 10 above) | 0 | 0 | 0 |

NOTES TO FINANCIAL STATEMENTS

Note 1 - Summary of Significant Accounting Policies

A. Accounting Practices

The financial statements of Manhattan National Life Insurance Company (the “Company”) are presented on the basis of accounting practices prescribed or permitted by the Ohio Department of Insurance.

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. The Company has no prescribed or permitted practices that would result in differences between NAIC Statutory Accounting Principles (“NAIC SAP”) and the State of Ohio basis, as shown below:

| Net Income | June 30, 2023 | December 31, 2022 |
|--|---------------|-------------------|
| (1) State basis | \$ (393,631) | \$ (374,495) |
| (2) State prescribed practices that increase/(decrease) NAIC SAP | - | - |
| (3) State permitted practices that increase/(decrease) NAIC SAP | - | - |
| (4) NAIC SAP | \$ (393,631) | \$ (374,495) |
| Surplus | | |
| (5) State basis | \$ 15,779,048 | \$ 16,111,994 |
| (6) State prescribed practices that increase/(decrease) NAIC SAP | - | - |
| (7) State permitted practices that increase/(decrease) NAIC SAP | - | - |
| (8) NAIC SAP | \$ 15,779,048 | \$ 16,111,994 |

B, C & D – No significant changes.

Note 2 - Accounting Changes and Corrections of Errors

Not applicable.

Note 3 - Business Combinations and Goodwill

Not applicable.

Note 4 - Discontinued Operations

Not applicable.

Note 5 - Investments

A, B & C – No significant changes.

D. Loan-Backed Securities

- (1) The Company uses dealer-modeled prepayment assumptions for mortgage-backed and asset-backed securities at the date of purchase to determine the effective yields; significant changes in estimated cash flows from the original purchase assumptions are accounted for on a prospective basis.
- (2) The Company does not currently hold any aggregate loan-backed securities with a recognized other-than-temporary impairment (“OTTI”) in which the Company has the intent to sell or the inability or lack of intent to retain the investment in the security for a period of time to recover the amortized cost basis.
- (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 |
|-----------|-------------------------------|--|--|------------------------------|-------------------------------|------------------|
| 126694LC0 | 100,912 | 100,912 | - | 100,912 | 68,541 | 3/31/2023 |

- (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 | \$945,234 |
| 2. 12 months or longer | 5,413,951 |
- b. The aggregate related fair value of securities with unrealized losses:
- | | |
|------------------------|--------------|
| 1. Less than 12 months | \$33,003,226 |
| 2. 12 months or longer | 60,302,425 |
- (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 at June 30, 2023. 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.

NOTES TO FINANCIAL STATEMENTS

- I. Reverse Repurchase Agreements Transactions Accounted for as a Sale – Not applicable.
- J. Real Estate – Not applicable.
- K. Low Income Housing Tax Credits – Not applicable.
- L. Restricted Assets – No significant change.
- M. Working Capital Finance Investments – Not applicable.
- N. Offsetting and Netting of Assets and Liabilities – Not applicable.
- O. 5GI Securities – Not applicable.
- P. Short Sales – Not Applicable.
- Q. Prepayment Penalty and Acceleration Fees – Not applicable.
- R. Share of Cash Pool by Asset Type – Not applicable.

Note 6 - Joint Ventures, Partnerships and Limited Liability Companies

Not applicable.

Note 7 - Investment Income

No significant change.

Note 8 - Derivative Instruments

Not applicable.

Note 9 - Income Taxes

No significant change.

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

A.,B. & C.

The Company is a wholly-owned subsidiary of Manhattan National Holding, LLC (“MNH”). 100% of the Company’s outstanding common stock is directly owned by MNH. The Company’s common stock was contributed to MNH on September 25, 2008, from MMALIC. MNH is a wholly-owned subsidiary of MMALIC. MMALIC is wholly-owned subsidiary of Glidepath Holdings, Inc., a financial services holding company wholly-owned by Massachusetts Mutual Life Insurance Company. See Schedule Y, Part 1, Organizational Chart.

During the period, the Company received a \$74,571 federal income tax payment in cash from MMALIC.

- D. The Company reported \$80,466 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 including the Company:
 - (1) The Company has an agreement with Barings (an affiliate) which provides investment advisory services to the Company.
 - (2) Certain administrative, management, 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 MNH.
- 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.
- 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 does not hold an investment in a downstream non-insurance holding company.
- M. Valuation of Subsidiary, Controlled and Affiliated Entities (excluding U.S. Insurance Entities) – Not applicable.
- N. The Company has no investments in insurance subsidiary, controlled, or affiliated entities.
- O. Subsidiary, Controlled, and Affiliated Entities Loss Tracking – Not applicable.

Note 11 - Debt

Not applicable.

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

A., B., C. & D.

The Company did not participate in a defined benefit plan.

NOTES TO FINANCIAL STATEMENTS

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 \$50,096,026 as of June 30, 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 \$18,747 for the six months ended June 30, 2023 and \$32,941 for the year ended December 31, 2022.

F. The Company did not participate in multiemployer plans.

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

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

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

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

No significant change.

Note 14 - Contingencies

No significant change.

Note 15 - Leases

Not applicable.

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

Not applicable.

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

The Company has no reportable transactions.

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

Not applicable.

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

Not applicable.

Note 20 - Fair Value

A.

- (1) The Company does not have any assets or liabilities measured at fair value or net asset value ("NAV").
- (2) The Company does not have any Level 3 securities carried at fair value.
- (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. There were no Level 3 transfers during the reporting period.

- (4) Inputs and Techniques Used in Estimating Fair Value

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

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

Level 3 - Valuations derived from market valuation techniques generally consistent with those used to estimate the fair value of Level 2 financial instruments in which one or more significant inputs are unobservable or when the market for a security exhibits significantly less liquidity relative to markets supporting Level 2 fair value measurements. The unobservable inputs may include management's own assumptions about the assumptions market participants would use based on the best information available in the circumstances. The Company does not have any Level 3 assets or liabilities carried at fair value at June 30, 2023.

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

- (5) Derivative Assets and Liabilities – Not applicable.

B. The Company has no additional fair value disclosures.

NOTES TO FINANCIAL STATEMENTS

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

| Type of Financial Instrument | Aggregate Fair Value | Admitted Assets | Level 1 | Level 2 | Level 3 | Net Asset Value (NAV) | Not Practicable (Carrying Value) |
|-------------------------------------|-------------------------|--------------------|--------------|----------------|--------------|--------------------------|---|
| Financial Assets: | | | | | | | |
| Bonds: | | | | | | | |
| U.S. government and agencies | \$ 1,612,718 | \$ 1,706,488 | \$ - | \$ 1,612,718 | \$ - | \$ - | \$ - |
| States, territories and possessions | 3,609,500 | 2,758,551 | - | 3,609,500 | - | - | - |
| Special revenue | 10,381,690 | 10,244,014 | - | 10,381,690 | - | - | - |
| Industrial and miscellaneous | 95,229,602 | 100,527,892 | - | 95,229,602 | - | - | - |
| Total bonds | \$ 110,833,510 | \$ 115,236,945 | \$ - | \$ 110,833,510 | \$ - | \$ - | \$ - |
| Cash and cash equivalents | 8,432,985 | 8,432,985 | 8,432,985 | - | - | - | - |
| Policy loans | 4,244,211 | 4,244,211 | - | - | 4,244,211 | - | - |
| Total financial assets | \$ 123,510,706 | \$ 127,914,141 | \$ 8,432,985 | \$ 110,833,510 | \$ 4,244,211 | \$ - | \$ - |

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

No significant change.

Note 22 - Events Subsequent/Other Items of Note

No significant change.

Note 23 - Reinsurance

No significant change.

Note 24 - Retrospectively Rated Contracts & Contracts Subject to Redetermination

Not applicable.

Note 25 - Change in Incurred Losses and Loss Adjustment Expenses

The Company had no changes in the provision for incurred loss or loss adjustment expenses attributable to insured events of prior years.

Note 26 - Intercompany Pooling Arrangements

Not applicable.

Note 27 - Structured Settlements

Not applicable.

Note 28 - Health Care Receivables

Not applicable.

Note 29 - Participating Policies

No significant change.

Note 30 - Premium Deficiency Reserves

Not applicable.

Note 31 - Reserves for Life Contracts and Annuity Contracts

No significant change.

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

No significant change.

Note 33 – Analysis of Life Actuarial Reserves by Withdrawal Characteristics

No significant change.

Note 34 - Premiums and Annuity Considerations Deferred and Uncollected

No significant change.

Note 35 - Separate Accounts

Not applicable.

Note 36 - Loss/Claim Adjustment Expenses

Not applicable.

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

- 1.1

Did the reporting entity experience any material transactions requiring the filing of Disclosure of Material Transactions with the State of Domicile, as required by the Model Act?

Yes [] No [X]
- 1.2

If yes, has the report been filed with the domiciliary state?

Yes [] No []
- 2.1

Has any change been made during the year of this statement in the charter, by-laws, articles of incorporation, or deed of settlement of the reporting entity?

Yes [] No [X]
- 2.2

If yes, date of change:
- 3.1

Is the reporting entity a member of an Insurance Holding Company System consisting of two or more affiliated persons, one or more of which is an insurer?
If yes, complete Schedule Y, Parts 1 and 1A.

Yes [X] No []
- 3.2

Have there been any substantial changes in the organizational chart since the prior quarter end?

Yes [] No [X]
- 3.3

If the response to 3.2 is yes, provide a brief description of those changes.
- 3.4

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

Yes [] No [X]
- 3.5

If the response to 3.4 is yes, provide the CIK (Central Index Key) code issued by the SEC for the entity/group.
- 4.1

Has the reporting entity been a party to a merger or consolidation during the period covered by this statement?

Yes [] No [X]
- 4.2

If yes, provide the name of the entity, NAIC Company Code, and state of domicile (use two letter state abbreviation) for any entity that has ceased to exist as a result of the merger or consolidation.

| | | |
|----------------|-------------------|-------------------|
| 1 | 2 | 3 |
| Name of Entity | NAIC Company Code | State of Domicile |
| | | |
5.

If the reporting entity is subject to a management agreement, including third-party administrator(s), managing general agent(s), attorney-in-fact, or similar agreement, have there been any significant changes regarding the terms of the agreement or principals involved?
If yes, attach an explanation.

Yes [] No [X] N/A []
- 6.1

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

12/31/2021
- 6.2

State the as of date that the latest financial examination report became available from either the state of domicile or the reporting entity. This date should be the date of the examined balance sheet and not the date the report was completed or released.

12/31/2016
- 6.3

State as of what date the latest financial examination report became available to other states or the public from either the state of domicile or the reporting entity. This is the release date or completion date of the examination report and not the date of the examination (balance sheet date).

01/11/2018
- 6.4

By what department or departments?
Ohio Department of Insurance
- 6.5

Have all financial statement adjustments within the latest financial examination report been accounted for in a subsequent financial statement filed with Departments?

Yes [] No [] N/A [X]
- 6.6

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

Yes [] No [] N/A [X]
- 7.1

Has this reporting entity had any Certificates of Authority, licenses or registrations (including corporate registration, if applicable) suspended or revoked by any governmental entity during the reporting period?

Yes [] No [X]
- 7.2

If yes, give full information:
- 8.1

Is the company a subsidiary of a bank holding company regulated by the Federal Reserve Board?

Yes [] No [X]
- 8.2

If response to 8.1 is yes, please identify the name of the bank holding company.
- 8.3

Is the company affiliated with one or more banks, thrifts or securities firms?

Yes [X] No []
- 8.4

If response to 8.3 is yes, please provide below the names and location (city and state of the main office) of any affiliates regulated by a federal regulatory services agency [i.e. the Federal Reserve Board (FRB), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC) and the Securities Exchange Commission (SEC)] and identify the affiliate's primary federal regulator.

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|------------------------|-----|-----|------|-----|
| Affiliate Name | Location (City, State) | FRB | OCC | FDIC | SEC |
| Barings LLC | Charlotte, NC | NO | NO | NO | YES |
| Baring International Investment Limited | London, UK | NO | NO | NO | YES |
| Barings Securities LLC | Charlotte, NC | 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 Advisors LLC | Springfield, MA | NO | NO | NO | YES |
| MML Investors Services LLC | 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 |
| Flourish Financial LLC | New York, NY | NO | NO | NO | YES |

GENERAL INTERROGATORIES

9.1

Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?
(a) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
(b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity;
(c) Compliance with applicable governmental laws, rules and regulations;
(d) The prompt internal reporting of violations to an appropriate person or persons identified in the code; and
(e) Accountability for adherence to the code.

Yes [X] No []

9.11

If the response to 9.1 is No, please explain:
.....

9.2

Has the code of ethics for senior managers been amended?

Yes [] No [X]

9.21

If the response to 9.2 is Yes, provide information related to amendment(s).
.....

9.3

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

Yes [] No [X]

9.31

If the response to 9.3 is Yes, provide the nature of any waiver(s).
.....

FINANCIAL

10.1

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

Yes [] No [X]

10.2

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

INVESTMENT

11.1

Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or otherwise made available for use by another person? (Exclude securities under securities lending agreements.)

Yes [] No [X]

11.2

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

12.

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

\$

13.

Amount of real estate and mortgages held in short-term investments:

\$

14.1

Does the reporting entity have any investments in parent, subsidiaries and affiliates?

Yes [] No [X]

14.2

If yes, please complete the following:

| | 1 | 2 |
|---|---|--|
| | Prior Year-End Book/Adjusted Carrying Value | Current Quarter Book/Adjusted Carrying Value |
| 14.21 Bonds | \$0 | \$ |
| 14.22 Preferred Stock | \$0 | \$ |
| 14.23 Common Stock | \$0 | \$ |
| 14.24 Short-Term Investments | \$0 | \$ |
| 14.25 Mortgage Loans on Real Estate | \$0 | \$ |
| 14.26 All Other | \$0 | \$ |
| 14.27 Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26) | \$0 | \$0 |
| 14.28 Total Investment in Parent included in Lines 14.21 to 14.26 above | \$ | \$ |

15.1

Has the reporting entity entered into any hedging transactions reported on Schedule DB?

Yes [] No [X]

15.2

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

16.

For the reporting entity's security lending program, state the amount of the following as of the current statement date:

16.1

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

\$0

16.2

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

\$0

16.3

Total payable for securities lending reported on the liability page.

\$0

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

GENERAL INTERROGATORIES

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

| 1 Name of Custodian(s) | 2 Custodian Address |
|-------------------------------|---|
| Bank of New York Mellon | 1 Wall Street, New York, NY 10286 |

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

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

- 17.3 Have there been any changes, including name changes, in the custodian(s) identified in 17.1 during the current quarter? Yes [] No [X]
- 17.4 If yes, give full information relating thereto:

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

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

| 1 Name of Firm or Individual | 2 Affiliation |
|---------------------------------|------------------|
| Bar ings LLC | A..... |

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

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

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

| 1 Central Registration Depository Number | 2 Name of Firm or Individual | 3 Legal Entity Identifier (LEI) | 4 Registered With | 5 Investment Management Agreement (IMA) Filed |
|--|---------------------------------|------------------------------------|----------------------|---|
| 106006 | Bar ings LLC | 549300G36F1EZS4MQM37 | SEC | DS..... |

- 18.1 Have all the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office been followed? Yes [X] No []
- 18.2 If no, list exceptions:

.....

19. By self-designating 5GI securities, the reporting entity is certifying the following elements for each self-designated 5GI security:
- a. Documentation necessary to permit a full credit analysis of the security does not exist or an NAIC CRP credit rating for an FE or PL security is not available.
 - b. Issuer or obligor is current on all contracted interest and principal payments.
 - c. The insurer has an actual expectation of ultimate payment of all contracted interest and principal.
- Has the reporting entity self-designated 5GI securities? Yes [] No [X]

20. By self-designating PLGI securities, the reporting entity is certifying the following elements of each self-designated PLGI security:
- a. The security was purchased prior to January 1, 2018.
 - b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
 - c. The NAIC Designation was derived from the credit rating assigned by an NAIC CRP in its legal capacity as a NRSRO which is shown on a current private letter rating held by the insurer and available for examination by state insurance regulators.
 - d. The reporting entity is not permitted to share this credit rating of the PL security with the SVO.
- Has the reporting entity self-designated PLGI securities? Yes [] No [X]

21. By assigning FE to a Schedule BA non-registered private fund, the reporting entity is certifying the following elements of each self-designated FE fund:
- a. The shares were purchased prior to January 1, 2019.
 - b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
 - c. The security had a public credit rating(s) with annual surveillance assigned by an NAIC CRP in its legal capacity as an NRSRO prior to January 1, 2019.
 - d. The fund only or predominantly holds bonds in its portfolio.
 - e. The current reported NAIC Designation was derived from the public credit rating(s) with annual surveillance assigned by an NAIC CRP in its legal capacity as an NRSRO.
 - f. The public credit rating(s) with annual surveillance assigned by an NAIC CRP has not lapsed.
- Has the reporting entity assigned FE to Schedule BA non-registered private funds that complied with the above criteria? Yes [] No [X]

GENERAL INTERROGATORIES

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

Life and Accident Health Companies/Fraternal Benefit Societies:

1.

Report the statement value of mortgage loans at the end of this reporting period for the following categories:

1

Amount

1.1

Long-Term Mortgages In Good Standing

1.11

Farm Mortgages

\$

1.12

Residential Mortgages

\$

1.13

Commercial Mortgages

\$

1.14

Total Mortgages in Good Standing

\$

0

1.2

Long-Term Mortgages In Good Standing with Restructured Terms

1.21

Total Mortgages in Good Standing with Restructured Terms

\$

1.3

Long-Term Mortgage Loans Upon which Interest is Overdue more than Three Months

1.31

Farm Mortgages

\$

1.32

Residential Mortgages

\$

1.33

Commercial Mortgages

\$

1.34

Total Mortgages with Interest Overdue more than Three Months

\$

0

1.4

Long-Term Mortgage Loans in Process of Foreclosure

1.41

Farm Mortgages

\$

1.42

Residential Mortgages

\$

1.43

Commercial Mortgages

\$

1.44

Total Mortgages in Process of Foreclosure

\$

0

1.5

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

\$

0

1.6

Long-Term Mortgages Foreclosed, Properties Transferred to Real Estate in Current Quarter

1.61

Farm Mortgages

\$

1.62

Residential Mortgages

\$

1.63

Commercial Mortgages

\$

1.64

Total Mortgages Foreclosed and Transferred to Real Estate

\$

0

2.

Operating Percentages:

2.1

A&H loss percent

40.863

%

2.2

A&H cost containment percent

%

2.3

A&H expense percent excluding cost containment expenses

0.000

%

3.1

Do you act as a custodian for health savings accounts?

Yes

[

]

No

[

X

]

3.2

If yes, please provide the amount of custodial funds held as of the reporting date

\$

3.3

Do you act as an administrator for health savings accounts?

Yes

[

]

No

[

X

]

3.4

If yes, please provide the balance of the funds administered as of the reporting date

\$

4.

Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states?

Yes

[

X

]

No

[

]

4.1

If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of domicile of the reporting entity?

Yes

[

]

No

[

]

Fraternal Benefit Societies Only:

5.1

In all cases where the reporting entity has assumed accident and health risks from another company, provisions should be made in this statement on account of such reinsurances for reserve equal to that which the original company would have been required to establish had it retained the risks. Has this been done?

Yes

[

]

No

[

]

N/A

[

]

5.2

If no, explain:

6.1

Does the reporting entity have outstanding assessments in the form of liens against policy benefits that have increased surplus?

Yes

[

]

No

[

]

6.2

If yes, what is the date(s) of the original lien and the total outstanding balance of liens that remain in surplus?

| Date | Outstanding Lien Amount |
|------|-------------------------|
| | |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE S - CEDED REINSURANCE

Showing All New Reinsurance Treaties - Current Year to Date

[illegible]

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Current Year To Date - Allocated by States and Territories

| | | | Direct Business Only | | | | | |
|----------------------|---|-----|------------------------------|-----------------------------|--|---------------------------|--------------------------------|-----------------------------|
| | | | Life Contracts | | 4 Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees | 5 Other Considerations | 6 Total Columns 2 Through 5 | 7 Deposit-Type Contracts |
| | | | 2 Life Insurance Premiums | 3 Annuity Considerations | | | | |
| States, Etc. | | | 1 Active Status (a) | | | | | |
| 1. | Alabama | AL | L | 20,903 | 0 | 0 | 20,903 | |
| 2. | Alaska | AK | L | 5,062 | 0 | 0 | 5,062 | |
| 3. | Arizona | AZ | L | 29,296 | 0 | 0 | 29,296 | |
| 4. | Arkansas | AR | L | 48,530 | 0 | 0 | 48,530 | |
| 5. | California | CA | L | 686,669 | 711 | 0 | 687,380 | |
| 6. | Colorado | CO | L | 69,995 | 0 | 0 | 69,995 | |
| 7. | Connecticut | CT | L | 43,482 | 0 | 0 | 43,482 | |
| 8. | Delaware | DE | L | 25,064 | 0 | 0 | 25,064 | |
| 9. | District of Columbia | DC | L | 3,570 | 0 | 0 | 3,570 | |
| 10. | Florida | FL | L | 345,490 | 361 | 30,278 | 376,129 | |
| 11. | Georgia | GA | L | 159,599 | 1,100 | 407 | 161,106 | |
| 12. | Hawaii | HI | L | 20,236 | 0 | 0 | 20,236 | |
| 13. | Idaho | ID | L | 12,633 | 0 | 0 | 12,633 | |
| 14. | Illinois | IL | L | 169,406 | 8,315 | 0 | 177,721 | |
| 15. | Indiana | IN | L | 180,104 | 1,445 | 203 | 181,752 | |
| 16. | Iowa | IA | L | 64,624 | 0 | 168 | 64,791 | |
| 17. | Kansas | KS | L | 73,372 | 4,086 | 0 | 77,458 | |
| 18. | Kentucky | KY | L | 55,462 | 0 | 0 | 55,462 | |
| 19. | Louisiana | LA | L | 105,726 | 0 | 0 | 105,726 | |
| 20. | Maine | ME | L | 43,088 | 0 | 0 | 43,088 | |
| 21. | Maryland | MD | L | 188,570 | 0 | 0 | 188,570 | |
| 22. | Massachusetts | MA | L | 129,406 | 0 | 0 | 129,406 | |
| 23. | Michigan | MI | L | 222,730 | 3,803 | 285 | 226,818 | |
| 24. | Minnesota | MN | L | 313,386 | 17,450 | 0 | 330,836 | |
| 25. | Mississippi | MS | L | 65,224 | 420 | 0 | 65,644 | |
| 26. | Missouri | MO | L | 162,959 | 7,414 | 303 | 170,675 | |
| 27. | Montana | MT | L | 5,921 | 0 | 0 | 5,921 | |
| 28. | Nebraska | NE | L | 33,510 | 0 | 0 | 33,510 | |
| 29. | Nevada | NV | L | 43,456 | 0 | 0 | 43,456 | |
| 30. | New Hampshire | NH | L | 28,579 | 0 | 0 | 28,579 | |
| 31. | New Jersey | NJ | L | 160,941 | 0 | 0 | 160,941 | |
| 32. | New Mexico | NM | L | 16,963 | 0 | 486 | 17,449 | |
| 33. | New York | NY | N | 34,427 | 0 | 0 | 34,427 | |
| 34. | North Carolina | NC | L | 127,285 | 300 | 0 | 127,585 | |
| 35. | North Dakota | ND | L | 42,136 | 0 | 0 | 42,136 | |
| 36. | Ohio | OH | L | 141,991 | 90 | 108 | 142,188 | |
| 37. | Oklahoma | OK | L | 41,197 | 0 | 0 | 41,197 | |
| 38. | Oregon | OR | L | 39,800 | 0 | 0 | 39,800 | |
| 39. | Pennsylvania | PA | L | 173,029 | 0 | 219 | 173,249 | |
| 40. | Rhode Island | RI | L | 5,698 | 0 | 0 | 5,698 | |
| 41. | South Carolina | SC | L | 94,483 | 180 | 0 | 94,663 | |
| 42. | South Dakota | SD | L | 7,740 | 0 | 0 | 7,740 | |
| 43. | Tennessee | TN | L | 132,573 | 0 | 330 | 132,903 | |
| 44. | Texas | TX | L | 338,590 | 300 | 135 | 339,025 | |
| 45. | Utah | UT | L | 21,689 | 71 | 0 | 21,760 | |
| 46. | Vermont | VT | L | 10,370 | 0 | 0 | 10,370 | |
| 47. | Virginia | VA | L | 118,476 | 0 | 0 | 118,476 | |
| 48. | Washington | WA | L | 47,548 | 0 | 0 | 47,548 | |
| 49. | West Virginia | WV | L | 10,739 | 0 | 0 | 10,739 | |
| 50. | Wisconsin | WI | L | 542,379 | 21,323 | 989 | 564,691 | |
| 51. | Wyoming | WY | L | 12,292 | 0 | 0 | 12,292 | |
| 52. | American Samoa | AS | N | 0 | 0 | 0 | 0 | |
| 53. | Guam | GU | N | 0 | 0 | 0 | 0 | |
| 54. | Puerto Rico | PR | N | 0 | 0 | 0 | 0 | |
| 55. | U.S. Virgin Islands | VI | N | 0 | 0 | 0 | 0 | |
| 56. | Northern Mariana Islands | MP | N | 0 | 0 | 0 | 0 | |
| 57. | Canada | CAN | N | 0 | 0 | 0 | 0 | |
| 58. | Aggregate Other Aliens | OT | XXX | 1,394 | 0 | 0 | 1,394 | 0 |
| 59. | Subtotal | XXX | | 5,477,792 | 67,369 | 33,909 | 5,579,071 | 0 |
| 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 | | 95,047 | | | 95,047 | |
| 94. | Aggregate or other amounts not allocable by State..... | XXX | | 0 | 0 | 0 | 0 | 0 |
| 95. | Totals (Direct Business)..... | XXX | | 5,572,840 | 67,369 | 33,909 | 5,674,118 | 0 |
| 96. | Plus Reinsurance Assumed..... | XXX | | | | | 0 | |
| 97. | Totals (All Business)..... | XXX | | 5,572,840 | 67,369 | 33,909 | 5,674,118 | 0 |
| 98. | Less Reinsurance Ceded..... | XXX | | 3,073,585 | 30,316 | 31,580 | 3,135,481 | |
| 99. | Totals (All Business) less Reinsurance Ceded | XXX | | 2,499,255 | 37,053 | 2,330 | 2,538,637 | 0 |
| DETAILS OF WRITE-INS | | | | | | | | |
| 58001. | Other Alien | XXX | | 1,394 | | | 1,394 | |
| 58002. | ..... | XXX | | | | | | |
| 58003. | ..... | XXX | | | | | | |
| 58998. | Summary of remaining write-ins for Line 58 from overflow page | XXX | | 0 | 0 | 0 | 0 | 0 |
| 58999. | Totals (Lines 58001 through 58003 plus 58998)(Line 58 above) | XXX | | 1,394 | 0 | 0 | 1,394 | 0 |
| 9401. | ..... | XXX | | | | | | |
| 9402. | ..... | XXX | | | | | | |
| 9403. | ..... | XXX | | | | | | |
| 9498. | Summary of remaining write-ins for Line 94 from overflow page | XXX | | 0 | 0 | 0 | 0 | 0 |
| 9499. | Totals (Lines 9401 through 9403 plus 9498)(Line 94 above) | XXX | | 0 | 0 | 0 | 0 | 0 |

(a) Active Status Counts:

| | | | |
|--|----|--|---|
| 1. L - Licensed or Chartered - Licensed insurance carrier or domiciled RRG..... | 50 | 4. Q - Qualified - Qualified or accredited reinsurer..... | 0 |
| 2. R - Registered - Non-domiciled RRGs..... | 0 | 5. N - None of the above - Not allowed to write business in the state..... | 7 |
| 3. E - Eligible - Reporting entities eligible or approved to write surplus lines in the state..... | 0 | | |

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

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

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

12.1

| | Federal Tax ID | NAIC Co Code | State of Domicile |
|---|----------------|--------------|------------------------|
| 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 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 |
| 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 |
| 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 |
| JFIN Revolver Holdings IV LLC | None | | Delaware |
| JFIN Co-Issuer Corporation | None | | Delaware |
| JFIN Europe GP, S.a.r.l. | None | | Luxembourg |
| Jefferies Finance Europe, S.L.P. | None | | Luxembourg |
| Jefferies Finance Europe, SCSp | None | | Luxembourg |
| Jefferies Finance Business Credit LLC | None | | Delaware |
| JFIN Business Credit Fund I LLC | None | | Delaware |
| JFIN Funding 2021 LLC | None | | Delaware |

*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 High Yield Investments 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 |
| 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 |
| 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 |

*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 |
|--|----------------|--------------|-------------------|
| 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 | 31-1395344 | | 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 |
| MM Investment Holding | None | | Cayman Islands |
| MMIH Bond Holdings LLC | None | | Delaware |
| MassMutual Asset Finance LLC* | 26-0073611 | | Delawar |
| MMAF Equipment Finance LLC 2017-B | 32-0546197 | | Delaware |
| MMAF Equipment Finance LLC 2018-A | 82-5335801 | | 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 |
| Rozier LLC | 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 Digital Assets LLC | None | | Delaware |
| Flourish Financial LLC | None | | Delaware |
| Flourish Holding Company LLC | None | | Delaware |
| Flourish Insurance Agency LLC | None | | Delaware |
| Flourish Technologies LLC | None | | Delaware |
| MassMutual Ventures US IV GP | 04-1590850 | | Delaware |
| MassMutual Venture US IV LP | 04-1590850 | | Delaware |
| MML Distributors LLC* | 04-3356880 | | Massachusetts |
| MML Investment Advisers, LLC | None | | Delaware |
| MML Strategic Distributors, LLC | 46-3238013 | | 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

12.4

| | Federal Tax ID | NAIC Co Code | State of Domicile |
|--|----------------|--------------|-------------------|
| 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 |
| VGS Acquisition Holding, LLC | None | | Delaware |
| Haven Life Insurance Agency, LLC | 46-2252944 | | Delaware |
| Aland Royalty Holdings LP | None | | Delaware |
| GASL Holdings LLC | None | | Delaware |
| Barings Asset-Based Income Fund (US) LP | None | | 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 | | Ireland |
| 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 |
| MassMutual Ventures Holding LLC | None | | Delaware |
| Athens Fund Management 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 |
| MassMutual Ventures US IV LLC | None | | Delaware |
| MM Catalyst Fund LLC | None | | Delaware |
| MM Catalyst Fund II LLC | None | | Delaware |
| MM Rothesay Holdco US LLC | 04-1590850 | | Delaware |
| Rothesay Limited | None | | United Kingdom |

*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 |
|--|----------------|--------------|---|
| 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 |
| Altis Property Partners Holdings Pty Ltd | 98-0457456 | | Australia |
| Altis Asset Management Pty Ltd | None | | Australia |
| Altis 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 |
| 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 |

*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

12.6

| | Federal Tax ID | NAIC Co Code | State of Domicile |
|--|----------------|--------------|-------------------|
| 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 International Investment Management Holdings | 98-0457587 | | United Kingdom |
| Baring Asset Management UK Holdings Limited | 98-0457576 | | 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 |
| CRA Aircraft Holding LLC* | 81-4258759 | | Delaware |
| Chassis Acquisition Holding LLC | 81-2244465 | | Delaware |
| EIP Holdings I, LLC | None | | Delaware |
| Red Lake Ventures, LLC | 46-5460309 | | Delaware |
| Remington L & W Holdings LLC | 81-4065378 | | Delaware |
| Validus Holding Company LLC | 46-0687392 | | 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 |

*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

12.7

| | <u>Federal Tax ID</u> | <u>NAIC Co Code</u> | <u>State of Domicile</u> |
|---|-----------------------|---------------------|--------------------------|
| Barings Infiniti Fund Management LLC | None | | Delaware |
| Barings Hotel Opportunity Venture I GP, LLC | None | | Delaware |
| Barings 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 Emerging Generation Fund LP | 84-3784245 | | Delaware |
| 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 |
| 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 |
| SBNP SIA II LLC | None | | Delaware |
| SBNP SIA III LLC | None | | Delaware |
| Barings CLO 2022-I | 98-1624360 | | Cayman Island |
| Barings CLO 2022-II | None | | Cayman Island |

*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 |
|--|----------------|--------------|-------------------|
| Amherst Long Term Holdings, LLC | None | | Delaware |
| MassMutual International LLC | 04-3313782 | | Delaware |
| MassMutual Solutions LLC | None | | Delaware |
| Haven Technologies Asia Limited | None | | Hong Kong |
| Yunfeng Financial Group Limited | None | | Hong Kong |
| MassMutual Asia Limited (SPV) | None | | Hong Kong |
| MassMutual External Benefits Group LLC | 27-3576835 | | Delaware |
| MMV CTF I GP LLC | None | | Delaware |
| MassMutual Ventures Climate Technology Fund I LP | 27-3576835 | | Delaware |
| Other Affiliates & Funds: | | | |
| 100 w. 3 rd Street LLC | 04-1590850 | | Delaware |
| 300 South Tryon Hotel LLC | 82-2432216 | | Delaware |
| 2160 Grand Manager LLC | 04-1590850 | | 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 Markets Corporate Bond Fund* | None | | Ireland |
| 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. 2012-II | None | | Cayman Islands |
| Babson CLO Ltd. 2015-I | None | | Cayman Islands |
| Babson CLO Ltd. 2015-II | None | | Cayman Islands |
| Babson CLO Ltd. 2016-I | None | | Cayman Islands |
| Babson CLO Ltd. 2016-II | None | | Cayman Islands |
| Barings CLO Ltd. 2017-I | None | | Cayman Islands |
| Barings CLO 2018-III | None | | Cayman Islands |
| Barings CLO 2018-IV | None | | Cayman Islands |
| Barings CLO 2019-II | 98-1473665 | | Cayman Islands |
| Barings CLO 2019-III | None | | Cayman Islands |
| Barings CLO 2019-IV | None | | Cayman Islands |
| Barings CLO 2020-I | None | | Cayman Islands |
| Barings CLO 2020-II | None | | Cayman Islands |
| Barings CLO 2020-III | None | | Cayman Islands |
| Barings CLO 2020-IV | None | | Cayman Islands |
| Barings CLO 2021-I | None | | Cayman Islands |
| Barings CLO 2021-II | None | | Cayman Islands |
| Barings CLO 2021-III | None | | Cayman Islands |
| Babson Euro CLO 2014-I BV | None | | Netherlands |
| Babson Euro CLO 2014-II BV | None | | Netherlands |
| Babson Euro CLO 2015-I BV | None | | Netherlands |

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

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

| | <u>Federal Tax ID</u> | <u>NAIC Co Code</u> | <u>State of Domicile</u> |
|--|------------------------|---------------------|--------------------------|
| 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 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 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 Real Estate European Value Add I SCSp* | None | | United Kingdom |
| Barings Real Estate Debt Income Fund LP* | 85-3449260 | | Delaware |
| Barings Transportation Fund LP* | 87-1262754 | | Delaware |
| Braemar Energy Ventures I, L.P.* | None | | Delaware |
| Barings European Core Property Fund SCSp | None | | Luxembourg |
| Barings European Private Loan Fund III A | 46-5001122 | | Luxembourg |
| Benchmark 2018-B2 Mortgage Trust | 38-4059932 | | New York |
| Benchmark 2018-B4 | None | | New York |
| Benchmark 2018-B8 | 38-4096530 | | New York |
| Barings Core Property Fund LP | 20-5578089 | | Delaware |
| DPI Acres Capital SPV LLC | 04-1590850 | | Delaware |
| Gateway Mezzanine Partners II LP* | 90-0991195 | | 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 |

*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 |
|---|----------------|--------------|---------------------------|
| 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 Subline Borrower LLC | 04-1590850 | | Delaware |
| Washington Pine LLC | 04-1590850 | | Delaware |
| Somerset Special Opportunities Fund L.P.* | 20-8856877 | | 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 Two LLC* | 83-1325764 | | Delaware |
| Washington Gateway Three LLC* | 32-0574045 | | 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 European Growth Trust Fund | None | | United Kingdom |
| Barings Global High Yield Fund | 47-3790192 | | Massachusetts |
| CCIC Fund | None | | Peoples Republic of China |
| Great Lakes II LLC* | 71-1018134 | | Delaware |
| Wood Creek Venture Fund LLC | 04-1590850 | | Delaware |
| Barings Real Estate Affiliates & Funds: | | | |
| Barings California Mortgage Fund IV | None | | California |
| Barings Umbrella Fund LUX SCSp SICAV RAIF* | None | | Luxembourg |
| Calgary Railway Holding LLC* | 82-2285211 | | Delaware |
| Cornbrook PRS Holdings LLC | 82-3307907 | | Delaware |
| Cornerstone California Mortgage Fund I LLC | 95-4207717 | | California |
| Cornerstone California Mortgage Fund II LLC | 95-4207717 | | California |
| Cornerstone California Mortgage Fund III LLC | 95-4207717 | | California |
| Cornerstone Fort Pierce Development LLC* | 56-2630592 | | Delaware |
| Cornerstone Permanent Mortgage Fund | 45-2632610 | | Massachusetts |
| Cornerstone Permanent Mortgage Fund II | 61-1750537 | | Massachusetts |
| Cornerstone Permanent Mortgage Fund III | 35-2531693 | | Massachusetts |
| Cornerstone Permanent Mortgage Fund IV | 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 |

*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 |
|--|----------------|--------------|-------------------|
| 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 |
| 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 |

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

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

| | <u>Federal Tax ID</u> | <u>NAIC Co Code</u> | <u>State of Domicile</u> |
|---|-----------------------|---------------------|--------------------------|
| MassMutual 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 |

12.12

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

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|-------------------------------|-------------------|------------|--------------|-----|--|---|-----------------------|-----------------------------------|--|--|---|--|--------------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Ownership Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| . 0435 | Massachusetts Mut Life Ins Co | 65935 | 04-1590850 | 3848388 | | | Massachusetts Mutual Life Insurance Company (MMLIC) | .. MA | .. UIP | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| | | | | | | | MassMutual Ventures Europe/APAC I GP, LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| | | | | | | | MassMutual Ventures Europe/APAC I GP, L.P. | .. CYM | .. NIA | MassMutual Ventures Europe/APAC I GP, LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | MassMutual Ventures Europe/APAC I GP, L.P. | .. CYM | .. NIA | MassMutual Ventures Europe/APAC I GP, L.P. | Ownership | 100.000 | MMLIC | | |
| | | | | | | | Counterpointe Sustainable Advisors LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| | | | | | | | CSA Intermediate Holdco LLC | .. DE | .. NIA | Counterpointe Sustainable Advisors LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | Counterpointe Trust Services LLC | .. DE | .. NIA | CSA Intermediate Holdco LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | CP PACE LLC | .. DE | .. NIA | CSA Intermediate Holdco LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | CSA Employee Services Company LLC | .. DE | .. NIA | CSA Intermediate Holdco LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | Counterpointe Sustainable Real Estate II LLC | .. DE | .. NIA | CSA Intermediate Holdco LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | Counterpointe Energy Solutions II LLC | .. DE | .. NIA | CSA Intermediate Holdco LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | Counterpointe Energy Solutions (CA) II LLC | .. DE | .. NIA | Counterpointe Energy Solutions (CA) II LLC | Ownership | 100.000 | MMLIC | | |
| | | | | | | | Counterpointe Energy Services LLC | .. DE | .. NIA | CSA Intermediate Holdco LLC | Ownership | 100.000 | MMLIC | | |
| . 0435 | Massachusetts Mut Life Ins Co | 93432 | 06-1041383 | | | | C.M. Life Insurance Company | .. CT | .. IA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0435 | Massachusetts Mut Life Ins Co | 70416 | 43-0581430 | | | | MML Bay State Life Insurance Company | .. CT | .. IA | C.M. Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| | | | | | | | CM Life Mortgage Lending LLC | .. DE | .. NIA | C.M. Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| | | | | | | | CML Mezzanine Investor III, LLC | .. DE | .. NIA | C.M. Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | CML Special Situations Investor LLC | .. DE | .. NIA | C.M. Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | CML Global Capabilities LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MM Global Capabilities I LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MassMutual Global Business Services India LLP | .. IND | .. NIA | MM Global Capabilities I LLC | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MM Global Capabilities (Netherlands) B.V. | .. NLD | .. NIA | MM Global Capabilities I LLC | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MassMutual Global Business Services Romania S.R.L. | .. ROU | .. NIA | MM Global Capabilities (Netherlands) B.V. | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MM Global Capabilities II LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MM Global Capabilities III LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MM/Barings Multifamily TEBS 2020 LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | MML Special Situations Investor LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | 47-5322979 | | | | Timberland Forest Holding LLC | .. DE | .. NIA | Massachusetts Mutual Life Insurance Company | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | 47-5322979 | | | | Timberland Forest Holding LLC | .. DE | .. NIA | C.M. Life Insurance Company | Influence | 0.000 | MMLIC | | |
| . 0000 | | | 47-5322979 | | | | Timberland Forest Holding LLC | .. DE | .. NIA | Wood Creek Capital Management LLC | Management | | MMLIC | | |
| . 0000 | | | | | | | Lyme Adirondack Forest Company, LLC | .. DE | .. NIA | Timberland Forest Holding LLC | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | Lyme Adirondack Timberlands I, LLC | .. DE | .. NIA | Lyme Adirondack Forest Company, LLC | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | Lyme Adirondack Timberlands II, LLC | .. DE | .. NIA | Lyme Adirondack Forest Company, LLC | Ownership | 100.000 | MMLIC | | |
| . 0000 | | | | | | | Lyme Adirondack Timber Sales, LLC | .. DE | .. NIA | Lyme Adirondack Forest Company, LLC | Ownership | 100.000 | MMLIC | | |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | 13 If Control is Owner- ship Provide Percen- tage | 14 Ultimate Controlling Entity(ies)/Person(s) | 15 Is an SCA Filing Re- quired? (Yes/No) | 16 * |
|---------------|-------------------------------------|-------------------------|---------------|-----------------|-------|--|---|-----------------------------------|---|--|---|---|---|--|---------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi- ciliary Loca- tion | Rela- tion- ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | | | | | |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Berkshire Way LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MSP-SC, LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | EM Opportunities LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | MassMutual MCAM Insurance Company, Inc. | .. VT..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | MassMutual Ventures US IV, GP, LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | MassMutual Ventures US IV, LP | .. DE..... | NIA..... | MassMutual Ventures US IV, GP, LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Insurance Road LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MassMutual Trad Private Equity LLC | .. DE..... | NIA..... | Insurance Road LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MassMutual Intellectual Property LLC | .. DE..... | NIA..... | Insurance Road LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Trad Investments I LLC | .. DE..... | NIA..... | Insurance Road LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | ITPSHolding LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | HITPS LLC | .. DE..... | NIA..... | ITPS Holding LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JFIN Parent LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Forma Brands, LLC* | .. DE..... | NIA..... | JFIN Parent LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 27-0105644 .. | ..... | ..... | ..... | Jefferies Finance LLC | .. DE..... | NIA..... | JFIN Parent LLC | Ownership..... | 50.000 ... | MMLIC ..... | ..... | 1 |
| . 0000 ... | | | 86-2294635 .. | ..... | ..... | ..... | Glidepath Holdings Inc. | .. DE..... | UIP..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0435 ... | Massachusetts Mut Life Ins Co | 63312 .. | 13-1935920 .. | ..... | ..... | ..... | MassMutual Ascend Life Insurance Company ... | .. OH..... | UIP..... | Glidepath Holdings Inc. | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 31-1422717 .. | ..... | ..... | ..... | AAG Insurance Agency, LLC | .. KY..... | NIA..... | MassMutual Ascend Life Insurance Company . | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0435 ... | Massachusetts Mut Life Ins Co | 93661 .. | 31-1021738 .. | ..... | ..... | ..... | Annuity Investors Life Insurance Company | .. OH..... | IA..... | MassMutual Ascend Life Insurance Company . | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 31-1395344 .. | ..... | ..... | ..... | MM Ascend Life Investor Services, LLC | .. OH..... | NIA..... | MassMutual Ascend Life Insurance Company . | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | MM Ascend Mortgage Lending LLC | .. OH..... | NIA..... | MassMutual Ascend Life Insurance Company . | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 26-3260520 .. | ..... | ..... | ..... | Manhattan National Holding, LLC | .. OH..... | UDP..... | MassMutual Ascend Life Insurance Company . | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0435 ... | Massachusetts Mut Life Ins Co | 67083 .. | 45-0252531 .. | ..... | ..... | ..... | Manhattan National Life Insurance Company ... | .. OH..... | RE..... | Manhattan National Holding LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | MassMutual Mortgage Lending LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Private Credit BDC Inc. | .. MD..... | NIA..... | Jefferies Finance LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JFIN GP Adviser LLC | .. DE..... | NIA..... | Jefferies Finance LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JFIN Fund III LLC | .. DE..... | NIA..... | Jefferies Finance LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Credit Partners LLC | .. DE..... | NIA..... | Jefferies Finance LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Apex Credit Partners LLC | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Credit Management LLC | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JCP Direct Lending CLO 2022 LLC | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 9.900 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Direct Lending Europe SCSp SICAV- RAIF | .. LUX..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 9.900 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Credit Management Holdings LLC | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 9.900 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Senior Credit Investments, LLC | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 9.900 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JDLF GP (Europe) S.a.r.l | .. LUX..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JFAM GP LLC | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | JFAM GP LP | .. DE..... | NIA..... | Jefferies Credit Partners LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Direct Lending Fund C LP | .. DE..... | NIA..... | JFAM GP LP | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies DLF C Holdings LLC | .. DE..... | NIA..... | Jefferies Direct Lending Fund C LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Jefferies Direct Lending Fund C SPE LLC | .. DE..... | NIA..... | Jefferies DLF C Holdings LLC | Ownership..... | 100.000 ... | MMLIC ..... | ..... | ..... |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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

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

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | 13 If Control is Owner- ship Provide Percent- age | 14 Ultimate Controlling Entity(ies)/Person(s) | 15 Is an SCA Filing Re- quired? (Yes/No) | 16 * |
|---------------|------------|-------------------------|--------------|-----------------|-----|--|---|-----------------------------------|--|--|---|---|---|--|---------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi- ciliary Loca- tion | Relation- ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | | | | | |
| .0000 | | | | | | | JCP Private Loan Management LP | ..DE..... | NIA..... | JCP Private Loan Management GP LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Apex Credit Holdings LLC | ..DE..... | NIA..... | JFIN Parent LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2012 Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2013 Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2014 Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2014-II Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2015 Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2015-II Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 85.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2016 Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2017 Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | JFIN CLO 2017-II Ltd. | ..CYM..... | NIA..... | Apex Credit Partners LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Tomorrow Parent, LLC | ..DE..... | NIA..... | JFIN Parent LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Custom Ecology Holdco, LLC | ..DE..... | NIA..... | JFIN Parent LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MM Copper Hill Road LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MM Direct Private Investments Holding LLC ... | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MM Direct Private Investments UK Limited | ..GBR..... | NIA..... | MM Direct Private Investments Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | DPI-ACRES Capital LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MM Investment Holding | ..CYM..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMIH Bond Holdings LLC | ..DE..... | NIA..... | MM Investment Holding | Ownership..... | 99.600 | MMLIC | | |
| .0000 | | | 26-0073611 | | | | MassMutual Asset Finance LLC | ..DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | 0.400 | MMLIC | | |
| .0000 | | | 26-0073611 | | | | MassMutual Asset Finance LLC | ..DE..... | NIA..... | MM Investment Holding | Ownership..... | 99.600 | MMLIC | | |
| .0000 | | | 32-0546197 | | | | MMAF Equipment Finance LLC 2017-B | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 82-5335801 | | | | MMAF Equipment Finance LLC 2018-A | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 83-3722640 | | | | MMAF Equipment Finance LLC 2019-A | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2019-B | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2020-A | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2020-B | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2021-A | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2022-A | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2022-B | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMAF Equipment Finance LLC 2023-A | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rozier LLC | ..DE..... | NIA..... | MassMutual Asset Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-2443240 | | | | MMI Management Corporation | ..MA..... | NIA..... | MM Investment Holding | Ownership..... | 100.000 | MMLIC | ...YES... | |
| .0000 | | | 04-3548444 | | | | MassMutual International Holding MSC, Inc. . | ..MA..... | NIA..... | MMI Management Corporation | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-3341767 | | | | MassMutual Holding MSC, Inc. | ..MA..... | NIA..... | MMI Management Corporation | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMI CM LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Blueprint Income LLC | ..NY..... | NIA..... | MMI CM LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Flourish Digital Assets LLC | ..DE..... | NIA..... | MMI CM LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Flourish Financial LLC | ..DE..... | NIA..... | MMI CM LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Flourish Holding Company LLC | ..DE..... | NIA..... | MMI CM LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Flourish Insurance Agency LLC | ..DE..... | NIA..... | MMI CM LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Flourish Technologies LLC | ..DE..... | NIA..... | MMI CM LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-3356880 | | | | MMI Distributors LLC | ..MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 99.000 | MMLIC | | |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|--|--|-----------------------|-----------------------------------|---|--|---|--|--------------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Ownership Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| .0000 | | | 04-3356880 | | | | MML Distributors LLC | ..MA..... | ..NIA..... | MassMutual Holding LLC Massachusetts Mutual Life Insurance Company | Ownership..... | 1.000 | MMLIC | | |
| .0000 | | | | | | | MML Investment Advisers, LLC | ..DE..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 46-3238013 | | | | MML Strategic Distributors, LLC | ..DE..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 06-1563535 | 2881445 | | | The MassMutual Trust Company, FSB | ..CT..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | ...YES... | |
| .0000 | | | 04-1590850 | | | | MML Private Placement Investment Company I, LLC | ..DE..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MML Private Equity Fund Investor LLC | ..DE..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MML Private Equity Fund Investor LLC | ..DE..... | ..NIA..... | Baring Asset Management Limited | Management..... | | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MM Private Equity Intercontinental LLC | ..DE..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 45-2738137 | | | | Pioneers Gate LLC | ..DE..... | ..NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-2854319 | 2392316 | | | MassMutual Holding LLC | ..DE..... | ..NIA..... | Company | Ownership..... | 100.000 | MMLIC | ...YES... | |
| .0000 | | | 06-1597528 | | | | MassMutual Assignment Company | ..NC..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 37-1732913 | | | | Fern Street LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Low Carbon Energy Holding | ..GBR..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 49.000 | MMLIC | | |
| .0000 | | | | | | | Sleeper Street LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Intermodal Holding II LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 46-2252944 | | | | Haven Life Insurance Agency, LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MassMutual Capital Partners LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 46-4255307 | | | | Marco Hotel LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 45-3623262 | | | | HB Naples Golf Owner LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 82-4411267 | | | | RB Apartments LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures Holding LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Athens Fund Management LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Crane Venture Partners LLP | ..GBR..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 33.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures Management LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures SEA Management Private Limited | ..DE..... | ..NIA..... | MassMutual Ventures Management LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMV UK/SEA Limited | ..GBR..... | ..NIA..... | MassMutual Ventures SEA Management Private Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures Southeast Asia I LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures Southeast Asia II LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures Southeast Asia III LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MMV Digital I LLC | ..CYM..... | ..NIA..... | MassMutual Ventures Southeast Asia III LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures UK LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 47-1296410 | | | | MassMutual Ventures US I LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures US II LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures US III LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | MassMutual Ventures US IV LLC | ..DE..... | ..NIA..... | MassMutual Ventures Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MM Rothesay Holdco US LLC | ..DE..... | ..NIA..... | MassMutual Holding LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Limited | ..GBR..... | ..NIA..... | MM Rothesay Holdco US LLC | Ownership..... | 48.800 | MMLIC | | |
| .0000 | | | | | | | Rothesay Life Plc | ..GBR..... | ..NIA..... | Rothesay Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay MA No.1 Limited | ..GBR..... | ..NIA..... | Rothesay Life PLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Mortgages Limited | ..GBR..... | ..NIA..... | Rothesay Limited | Ownership..... | 100.000 | MMLIC | | |

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|------------|------------|-------------------|------------|--------------|-----|--|--|-----------------------|-----------------------------------|---|--|---|--|--------------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Ownership Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| .0000 | | | | | | | Rothesay MA No.3 Limited | .GBR | NIA | Rothesay Life PLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay MA No.4 Limited | .GBR | NIA | Rothesay Life PLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | LT Mortgage Finance Limited | .GBR | NIA | Rothesay Life PLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Property Partnership 1 LLP | .GBR | NIA | Rothesay Life PLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Foundation | .GBR | NIA | Rothesay Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Pensions Management Limited | .GBR | NIA | Rothesay Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Asset Management UK Limited | .GBR | NIA | Rothesay Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Asset Management Australia Pty Ltd | .AUS | NIA | Rothesay Asset Management UK Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Rothesay Asset Management North America LLC | .DE | NIA | Rothesay Asset Management UK Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | MM Catalyst Fund LLC | .DE | NIA | MassMutual Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | MM Catalyst Fund II LLC | .DE | NIA | MassMutual Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 47-1466022 | | | | LifeScore Labs, LLC | .MA | NIA | MassMutual Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 45-4000072 | | | | MM Asset Management Holding LLC | .MA | NIA | MassMutual Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 51-0504477 | | | | Barings LLC | .MA | NIA | MassMutual Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MML Investors Services, LLC | .MA | NIA | MassMutual Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 04-1590850 | | | | MML Insurance Agency, LLC | .MA | NIA | MML Investors Services, LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 41-2011634 | | | | MMLISI Financial Alliances, LLC | .DE | NIA | MML Investors Services, LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 51-0504477 | | | | Barings LLC | .DE | NIA | MassMutual Asset Management Holding LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 98-0524271 | | | | Baring Asset Management (Asia) Holdings Limited | .HKG | NIA | Barings LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 98-0457465 | | | | Baring International Fund Managers (Bermuda) Limited | .BMU | NIA | Baring Asset Management (Asia) Holdings Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 98-0457463 | | | | Baring Asset Management (Asia) Limited | .HKG | NIA | Baring Asset Management (Asia) Holdings Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Baring Asset Management Korea Limited | .KOR | NIA | Baring Asset Management (Asia) Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Investment Management (Shanghai) Limited | .HKG | NIA | Baring Asset Management (Asia) Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Overseas Investment Fund Management (Shanghai) Limited | .HKG | NIA | Barings Investment Management (Shanghai) Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 98-0457707 | | | | Baring SICE (Taiwan) Limited | .TWN | NIA | Baring Asset Management (Asia) Holdings Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Singapore Pte. Ltd. | .SGP | NIA | Baring Asset Management (Asia) Holdings Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 98-0236449 | | | | Barings Japan Limited | .JPN | NIA | Baring Asset Management (Asia) Holdings Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Australia Holding Company Pty Ltd | .AUS | NIA | Baring Asset Management (Asia) Holdings Limited | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Australia Pty Ltd | .AUS | NIA | Barings Australia Holding Company Pty Ltd | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Australia Real Estate Holdings Pty Ltd | .AUS | NIA | Barings LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 14-0045656 | | | | Barings Australia Real Estate Pty Ltd | .AUS | NIA | Barings Australia Real Estate Holdings Pty Ltd | Ownership | 100.000 | MMLIC | | |
| .0000 | | | 98-0457456 | | | | Altis Property Partners Holdings Pty Ltd | .AUS | NIA | Barings Australia Real Estate Pty Ltd | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Altis Asset Management Pty Ltd | .AUS | NIA | Altis Property Partners Holdings Pty Ltd | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Altis Property Partners Pty Ltd | .AUS | NIA | Altis Property Partners Holdings Pty Ltd | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Australia Structured Finance Holdings Pty Ltd | .AUS | NIA | Barings LLC | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Australia Structured Finance Pty Ltd | .AUS | NIA | Barings Australia Structured Finance Holdings Pty Ltd | Ownership | 100.000 | MMLIC | | |
| .0000 | | | | | | | Gryphon Capital Partners Pty Ltd | .AUS | NIA | Barings Australia Structured Finance Pty Ltd | Ownership | 100.000 | MMLIC | | |

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| .0000 | | | | | | | Gryphon Capital Management Pty Ltd | .AUS..... | NIA..... | Gryphon Capital Partners Pty Ltd | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Gryphon Capital Investments Pty Ltd | .AUS..... | NIA..... | Gryphon Capital Partners Pty Ltd | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 80-0875475 | | | | Barings Finance LLC | .DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | BCF Europe Funding Limited | .IRL..... | NIA..... | Barings Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | BCF Senior Funding I LLC | .DE..... | NIA..... | Barings Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | BCF Senior Funding I Designated Activity Company | .IRL..... | NIA..... | Barings Finance LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Real Estate Acquisitions LLC | .DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-3238351 | | | | Barings Securities LLC | .DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0437588 | | | | Barings Guernsey Limited | .GGY..... | NIA..... | Barings LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Europe Limited | .GBR..... | NIA..... | Barings Guernsey Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Asset Management Spain SL | .ESP..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Baring France SAS | .FRA..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Baring International Fund Managers (Ireland) Limited | .IRL..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings GmbH | .DEU..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Italy S.r.l. | .ITA..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Sweden AB | .SWE..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Netherlands B.V. | .NLD..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0432153 | | | | Barings (U.K.) Limited | .GBR..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Switzerland Sàrl | .CHE..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0241935 | | | | Baring Asset Management Limited | .GBR..... | NIA..... | Barings Europe Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings European Direct Lending 1 GP LLP | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0457328 | | | | Baring International Investment Limited | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0457587 | | | | Baring International Investment Management Holdings | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0457576 | | | | Baring Asset Management UK Holdings Limited | .GBR..... | NIA..... | Baring International Investment Management Holdings | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0457586 | | | | Baring Fund Managers Limited | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | BCGSS 2 GP LLP | .GBR..... | NIA..... | Baring Fund Managers Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 98-0457578 | | | | Baring Investment Services Limited | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Core Fund Feeder I GP S.à.r.l. | .LUX..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings BME GP S.à.r.l. | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings GPC GP S.à. r.l. . | .LUX..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings European Core Property Fund GP Sàrl | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Investment Fund (LUX) GP S.à. r.l. . | .LUX..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | Barings Umbrella Fund (LUX) GP S.à.r.l. | .LUX..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | GPLF4(S) GP S.à r. l . | .LUX..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | PREIF Holdings Limited Partnership | .GBR..... | NIA..... | Baring Asset Management Limited | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | | | | | BMC Holdings DE LLC | .DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 04-3238351 | 3456895 | | | Barings Real Estate Advisers Inc. | .CA..... | NIA..... | Barings LLC | Ownership..... | 100.000 | MMLIC | | |
| .0000 | | | 81-2244465 | | | | Chassis Acquisition Holding LLC | .DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | 30.000 | MMLIC | | |
| .0000 | | | | | | | Massachusetts Mutual Life Insurance Company | | | | | | | | |
| .0000 | | | 81-4258759 | | | | CRA Aircraft Holding LLC | .DE..... | NIA..... | Company | Ownership/Influence | 40.000 | MMLIC | | |
| .0000 | | | 81-4258759 | | | | CRA Aircraft Holding LLC | .DE..... | NIA..... | Barings LLC | Influence..... | | MMLIC | | |
| .0000 | | | 83-0560183 | | | | Aland Royalty Holdings LP | .DE..... | NIA..... | Barings LLC | Management..... | | MMLIC | | |
| .0000 | | | 83-0560183 | | | | Aland Royalty Holdings LP | .DE..... | NIA..... | MassMutual Holding LLC | Ownership/Influence | 26.700 | MMLIC | | |
| .0000 | | | 82-2932156 | | | | GASL Holdings LLC | .DE..... | NIA..... | MassMutual Holding LLC | Ownership..... | 11.300 | MMLIC | | |
| .0000 | | | 82-2932156 | | | | GASL Holdings LLC | .DE..... | NIA..... | Barings LLC | Board | | MMLIC | | |

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| . 0000 ... | | | 47-3055009 .. | | | | Milestone Acquisition Holding, LLC, | .. DE..... | NIA..... | MassMutual Holding LLC | Ownership/Influence | ..19.800 | MMLIC | | |
| . 0000 ... | | | 46-5460309 .. | ..... | ..... | ..... | Red Lake Ventures, LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..31.500 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 46-5460309 .. | ..... | ..... | ..... | Red Lake Ventures, LLC | .. DE..... | NIA..... | Barings LLC | Influence..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 81-4065378 .. | ..... | ..... | ..... | Remington L & W Holdings LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..19.900 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 81-4065378 .. | ..... | ..... | ..... | Remington L & W Holdings LLC | .. DE..... | NIA..... | Barings LLC | Influence..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Teaktree Acquisition, LLC | .. DE..... | NIA..... | MassMutual Holding LLC | Ownership/Influence | ..14.700 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Teaktree Acquisition, LLC | .. DE..... | NIA..... | Barings LLC | Influence..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | EIP Holdings I, LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..29.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 46-0687392 .. | ..... | ..... | ..... | Validus Holding Company LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..40.400 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | VGS Acquisition Holding, LLC | .. DE..... | NIA..... | MassMutual Holding LLC | Ownership/Influence | ..33.300 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | VGS Acquisition Holding, LLC | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Aland Royalty GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Alaska Future Fund GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | BAI GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | BAI Funds SLP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Baring Asset-Based Income Fund (US) GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CMS Fund GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Infiniti Fund Management LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Massachusetts Mutual Life Insurance Company ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Hotel Opportunity Venture I GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Investment Series LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Emerging Generation Fund GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Emerging Generation Fund GP II, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings ERS PE Emerging Manager III GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Global Investment Funds (U.S.) Management LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Barings CLO Investment Partners GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Core Property Fund GP LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Direct Lending GP Ltd. | ..CYM..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Massachusetts Mutual Life Insurance Company ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| . 0000 ... | | | 84-3784245 .. | ..... | ..... | ..... | Barings Emerging Generation Fund LP | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..42.400 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 84-3784245 .. | ..... | ..... | ..... | Barings Emerging Generation Fund LP | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Global Energy Infrastructure Advisors, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Centre Street CLO Equity Partnership GP, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings North American Private Loan Fund Management, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings North American Private Loan Fund II Management, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings North American Private Loan Fund III Management, LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Global Special Situations Credit Fund 4 GP (Delaware) LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings - MM Revolver Fund GP LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Real Estate European Value Add Fund II Feeder LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | BMT RE Debt Fund GP LLC | .. DE..... | NIA..... | Barings LLC | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | 13 If Control is Owner- ship Provide Percen- tage | 14 Ultimate Controlling Entity(ies)/Person(s) | 15 Is an SCA Filing Re- quired? (Yes/No) | 16 * |
|---------------|------------|-------------------------|---------------|-----------------|-----|--|---|-----------------------------------|---|--|---|---|---|--|---------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi- ciliary Loca- tion | Rela- tion- ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | | | | | |
| .0000 ... | | | | | | | Barings Global Real Assets Fund GP, LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Barings GPSF LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 84-5063008 .. | | | | Barings Small Business Fund LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 33.600 ... | MLLIC | | |
| .0000 ... | | | 84-5063008 .. | | | | Barings Small Business Fund LLC | ..DE..... | NIA..... | Barings LLC | Management..... | | MLLIC | | |
| .0000 ... | | | 98-0536233 .. | | | | Benton Street Advisors, Inc. | ..CYM..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | BHOVI Incentive LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | BIG Real Estate Fund GP LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | BIG Real Estate Incentive I LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | BIG Real Estate Incentive II LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | BRECS VII GP LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | BREDIF GP LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | CREF X GP LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 04-1590850 .. | | | | Great Lakes III GP, LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Lake Jackson LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Barings Emerging Markets Blended Fund I GP, LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 41-2280126 .. | | | | Mezzco III LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 99.300 ... | MLLIC | | |
| .0000 ... | | | 80-0920285 .. | | | | Mezzco IV LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 99.300 ... | MLLIC | | |
| .0000 ... | | | | | | | Mezzco Australia II LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | RECSA-NY GP LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 04-1590850 .. | | | | SBNP SIA II LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | SBNP SIA III LLC | ..DE..... | NIA..... | Barings LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Massachusetts Mutual Life Insurance Company | | | Massachusetts Mutual Life Insurance Company | Ownership..... | 24.500 ... | MLLIC | | |
| .0000 ... | | | 04-3313782 .. | | | | Amherst Long Term Holdings, LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | ...YES... | |
| .0000 ... | | | | | | | MassMutual International LLC | ..DE..... | NIA..... | MassMutual International LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | MassMutual Solutions LLC | ..DE..... | NIA..... | MassMutual International LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Haven Technologies Asia Limited | ..HKG..... | NIA..... | MassMutual Solutions LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Yunfeng Financial Group Limited | ..HKG..... | NIA..... | MassMutual International LLC | Ownership..... | 24.900 ... | MLLIC | | |
| .0000 ... | | | | | | | MassMutual Asia Limited (SPV) | ..HKG..... | NIA..... | MassMutual International LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 27-3576835 .. | | | | Massachusetts Mutual Life Insurance Company | | | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | MassMutual External Benefits Group LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | MMV CTF I GP LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | MassMutual Ventures Climate Technology Fund I LP | ..DE..... | NIA..... | MMV CTF I GP LLC | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 04-1590850 .. | | | | Massachusetts Mutual Life Insurance Company | | | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 04-1590850 .. | | | | 100 w. 3rd Street LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | 2160 Grand Manager LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 95.000 ... | MLLIC | | |
| .0000 ... | | | 82-2432216 .. | | | | Massachusetts Mutual Life Insurance Company | | | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | 04-1590850 .. | | | | 300 South Tryon Hotel LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | 300 South Tryon LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |
| .0000 ... | | | | | | | Massachusetts Mutual Life Insurance Company | | | Massachusetts Mutual Life Insurance Company | Ownership..... | 72.900 ... | MLLIC | | |
| .0000 ... | | | | | | | Almack Mezzanine Fund II Unleveraged LP | ..GBR..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | | MLLIC | | |
| .0000 ... | | | | | | | Barings Affordable Housing Mortgage Fund I LLC | ..DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | 100.000 ... | MLLIC | | |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|---------------|--------------|-------|--|---|-----------------------|-----------------------------------|---|--|---|--|--------------------------------------|---------------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Ownership Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| . 0000 ... | | | | | | | Barings Affordable Housing Mortgage Fund I LLC | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 61-1902329 .. | ..... | ..... | ..... | Barings Affordable Housing Mortgage Fund II LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 61-1902329 .. | ..... | ..... | ..... | Barings Affordable Housing Mortgage Fund II LLC | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 85-3036663 .. | ..... | ..... | ..... | Barings Affordable Housing Mortgage Fund III LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 85-3036663 .. | ..... | ..... | ..... | Barings Affordable Housing Mortgage Fund III LLC | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 36-4868350 .. | ..... | ..... | ..... | Barings Asset-Based Income Fund (US) LP | .. DE..... | NIA..... | MassMutual Holding LLC | Ownership/Influence | ..11.200 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 36-4868350 .. | ..... | ..... | ..... | Barings Asset-Based Income Fund (US) LP | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership/Influence | ..1.100 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 36-4868350 .. | ..... | ..... | ..... | Barings Asset-Based Income Fund (US) LP | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Emerging Markets Corporate Bond Fund | .. IRL..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..56.000 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Emerging Markets Corporate Bond Fund | .. IRL..... | NIA..... | Barings LLC | Ownership..... | ..17.800 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings European Real Estate Debt Income Fund | .. LUX..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..65.300 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings European Real Estate Debt Income Fund | .. LUX..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 98-1206017 .. | ..... | ..... | ..... | Babson Capital Global Special Situation Credit Fund 2 | .. DE..... | NIA..... | MassMutual Holding LLC | Ownership/Influence | ..23.300 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 98-1206017 .. | ..... | ..... | ..... | Babson Capital Global Special Situation Credit Fund 2 | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 98-1206017 .. | ..... | ..... | ..... | Babson Capital Global Special Situation Credit Fund 2 | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 37-1506417 .. | ..... | ..... | ..... | Babson Capital Loan Strategies Fund, L.P. | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..75.700 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 37-1506417 .. | ..... | ..... | ..... | Babson Capital Loan Strategies Fund, L.P. | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..3.800 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 37-1506417 .. | ..... | ..... | ..... | Babson Capital Loan Strategies Fund, L.P. | .. DE..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings US High Yield Bond Fund | .. IRL..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..58.700 | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings US High Yield Bond Fund | .. IRL..... | NIA..... | Barings LLC | Management..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Babson CLO Ltd. 2015-I | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... 2 |
| . 0000 ... | | | | | | | Babson CLO Ltd. 2015-II | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... 3 |
| . 0000 ... | | | | | | | Babson CLO Ltd. 2016-I | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Babson CLO Ltd. 2016-II | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO Ltd. 2017-I | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2018-III | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2018-IV | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | 98-1473665 .. | ..... | ..... | ..... | Barings CLO 2019-I | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2019-III | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2019-IV | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2020-I | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2020-II | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2020-III | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2020-IV | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2021-I | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2021-II | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings CLO 2021-III | .. CYM..... | NIA..... | Barings LLC | Influence..... | ..... | MM L IC ..... | ..... | ..... |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|--|---|------------------------|------------------------------------|--|--|--|--|--------------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Loca-tion | Rela-tion-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| .0000 | | | 98-1624360 | | | | Barings CLO 2022-I | .CYM | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Barings CLO 2022-II | .CYM | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Babson Euro CLO 2014-I BV | .NLD | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Babson Euro CLO 2014-II BV | .NLD | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Babson Euro CLO 2015-I BV | .NLD | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | 36-037260H | | | | Barings Euro CLO 2019-I BV | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Barings Euro CLO 2019-II BV | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Barings Euro CLO 2020-I DAC | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | 37-15576VH | | | | Barings Euro CLO 2021-I DAC | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Barings Euro CLO 2021-II DAC | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Barings Euro CLO 2021-III DAC | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | | | | | Barings Euro CLO 2022-I DAC | .IRL | NIA | Barings LLC | Influence | | MLLIC | | |
| .0000 | | | 81-0841854 | | | | Barings CLO Investment Partners LP | .DE | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .99.200 | MLLIC | | |
| .0000 | | | 81-0841854 | | | | Barings CLO Investment Partners LP | .DE | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | 88-3792609 | | | | Barings Centre Street CLO Equity Partnership LP | .DE | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .26.200 | MLLIC | | |
| .0000 | | | | | | | Barings Euro Value Add II (BREEVA II) | .LUX | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .30.200 | MLLIC | | |
| .0000 | | | | | | | Barings Euro Value Add II (BREEVA II) | .LUX | NIA | C.M. Life Insurance Company | Ownership | 2.600 | MLLIC | | |
| .0000 | | | | | | | Barings Euro Value Add II (BREEVA II) | .LUX | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | | | | | Barings Real Estate European Value Add I SCSp | .GBR | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .42.900 | MLLIC | | |
| .0000 | | | | | | | Barings Real Estate European Value Add I SCSp | .GBR | NIA | C.M. Life Insurance Company | Ownership | .4.800 | MLLIC | | |
| .0000 | | | | | | | Barings Real Estate European Value Add I SCSp | .GBR | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | 85-3449260 | | | | Barings Real Estate Debt Income Fund LP | .DE | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .82.700 | MLLIC | | |
| .0000 | | | 85-3449260 | | | | Barings Real Estate Debt Income Fund LP | .DE | NIA | C.M. Life Insurance Company | Influence | | MLLIC | | |
| .0000 | | | 85-3449260 | | | | Barings Real Estate Debt Income Fund LP | .DE | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | 82-5330194 | | | | Barings Global Em. Markets Equity Fund | .NC | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | 98-1332384 | | | | Barings Global Energy Infrastructure Fund I LP | .CYM | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .99.200 | MLLIC | | |
| .0000 | | | 98-1332384 | | | | Barings Global Energy Infrastructure Fund I LP | .CYM | NIA | Baring Asset Management Limited | Management | | MLLIC | | |
| .0000 | | | | | | | Barings Global Dividends Champion Fund | .IRL | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | | | | | Barings LLC | .IRL | NIA | Barings LLC | | | MLLIC | | |
| .0000 | | | 82-3867745 | | | | Barings Global Real Assets Fund LP | .DE | NIA | MassMutual Holding LLC | Ownership/Influence | .26.900 | MLLIC | | |
| .0000 | | | 82-3867745 | | | | Barings Global Real Assets Fund LP | .DE | NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | .13.900 | MLLIC | | |
| .0000 | | | 82-3867745 | | | | Barings Global Real Assets Fund LP | .DE | NIA | C.M. Life Insurance Company | Ownership | 7.000 | MLLIC | | |
| .0000 | | | 82-3867745 | | | | Barings Global Real Assets Fund LP | .DE | NIA | Barings LLC | Management | | MLLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit Fund 3 | .IRL | NIA | MassMutual Holding LLC | Ownership/Influence | .19.700 | MLLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit 4 Delaware | .DE | NIA | Massachusetts Mutual Life Insurance Company | Ownership | .67.500 | MLLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit 4 Delaware | .DE | NIA | C.M. Life Insurance Company | Ownership | .3.600 | MLLIC | | |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|------------|--------------|-----|--|---|-----------------------|-----------------------------------|--|--|--|--|--------------------------------------|----|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| .0000 | | | | | | | Barings Global Special Situations Credit 4 Delaware | ..DE |NIA | Barings LLC | Management | | MMLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit 4 LUX | ..LUX |NIA | Massachusetts Mutual Life Insurance Company | Ownership | ..13.100 | MMLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit 4 LUX | ..LUX |NIA | C.M. Life Insurance Company | Ownership | ..0.700 | MMLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit 4 LUX | ..LUX |NIA | Barings LLC | Management | | MMLIC | | |
| .0000 | | | | | | | Barings Global Special Situations Credit Fund 3 | ..IRL |NIA | Barings LLC | Management | | MMLIC | | |
| .0000 | | | | | | | Barings Global Technology Equity Fund | ..IRL |NIA | Barings LLC | Ownership/Influence | ..71.900 | MMLIC | | |
| .0000 | | | 87-0977058 | | | | Barings Hotel Opportunity Venture | ..CT |NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..65.000 | MMLIC | | |
| .0000 | | | 87-0977058 | | | | Barings Hotel Opportunity Venture | ..CT |NIA | Barings LLC | Management | | MMLIC | | |
| .0000 | | | 86-3661023 | | | | Barings Innovations & Growth Real Estate Fund | ..DE |NIA | Massachusetts Mutual Life Insurance Company | Ownership | ..34.000 | MMLIC | | |
| .0000 | | | 86-3661023 | | | | Barings Innovations & Growth Real Estate Fund | ..DE |NIA | C.M. Life Insurance Company | Ownership | ..0.400 | MMLIC | | |
| .0000 | | | | | | | Barings Middle Market CLO 2017-I Ltd & LLC | ..CYM |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | | | | | Barings Middle Market CLO 2018-I | ..CYM |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | | | | | Barings Middle Market CLO 2019-I | ..CYM |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | 98-1612604 | | | | Barings Middle Market CLO Ltd 2021-I | ..CYM |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | 38-4010344 | | | | Barings North American Private Loan Fund LP | ..DE |NIA | MassMutual Holding LLC | Ownership/Influence | ..47.600 | MMLIC | | |
| .0000 | | | 38-4010344 | | | | Barings North American Private Loan Fund LP | ..DE |NIA | Baring Asset Management Limited | Management | | MMLIC | | |
| .0000 | | | 98-1332384 | | | | Barings RE Credit Strategies VII LP | ..DE |NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..34.000 | MMLIC | | |
| .0000 | | | 98-1332384 | | | | Barings RE Credit Strategies VII LP | ..DE |NIA | Baring Asset Management Limited | Management | | MMLIC | | |
| .0000 | | | 98-1567942 | | | | Barings Target Yield Infrastructure Debt Fund | ..LUX |NIA | Massachusetts Mutual Life Insurance Company | Ownership | ..20.400 | MMLIC | | |
| .0000 | | | 98-1567942 | | | | Barings Target Yield Infrastructure Debt Fund | ..LUX |NIA | Baring Asset Management Limited | Management | | MMLIC | | |
| .0000 | | | 87-1262754 | | | | Barings Transportation Fund LP | ..DE |NIA | MassMutual Holding LLC | Ownership/Influence | ..11.200 | MMLIC | | |
| .0000 | | | 87-1262754 | | | | Barings Transportation Fund LP | ..DE |NIA | Massachusetts Mutual Life Insurance Company | Ownership | ..8.200 | MMLIC | | |
| .0000 | | | | | | | Braemar Energy Ventures I, L.P. | ..DE |NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..79.400 | MMLIC | | |
| .0000 | | | | | | | Braemar Energy Ventures I, L.P. | ..DE |NIA | C.M. Life Insurance Company | Ownership | ..1.300 | MMLIC | | |
| .0000 | | | | | | | Braemar Energy Ventures I, L.P. | ..DE |NIA | Barings LLC | Management | | MMLIC | | |
| .0000 | | | | | | | Barings European Core Property Fund SCSp | ..LUX |NIA | MassMutual Holding LLC | Ownership/Influence | ..7.400 | MMLIC | | |
| .0000 | | | | | | | Barings European Core Property Fund SCSp | ..LUX |NIA | C.M. Life Insurance Company | Ownership | ..0.500 | MMLIC | | |
| .0000 | | | | | | | Barings European Core Property Fund SCSp | ..LUX |NIA | Barings Real Estate Advisers LLC | Management | | MMLIC | | |
| .0000 | | | 46-5001122 | | | | Barings European Private Loan Fund III A | ..LUX |NIA | Massachusetts Mutual Life Insurance Company | Ownership | ..45.200 | MMLIC | | |
| .0000 | | | 38-4059932 | | | | Benchmark 2018-B2 Mortgage Trust | ..NY |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | | | | | Benchmark 2018-B4 | ..NY |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | 38-4096530 | | | | Benchmark 2018-B8 | ..NY |NIA | Barings LLC | Influence | | MMLIC | | |
| .0000 | | | 20-5578089 | | | | Barings Core Property Fund LP | ..DE |NIA | MassMutual Holding LLC | Ownership/Influence | ..23.600 | MMLIC | | |
| .0000 | | | 20-5578089 | | | | Barings Core Property Fund LP | ..DE |NIA | Barings Real Estate Advisers LLC | Management | | MMLIC | | |
| .0000 | | | 35-2531693 | | | | Cornerstone Permanent Mortgage Fund III LLC | ..MA |NIA | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..100.000 | MMLIC | | |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Ownership Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| . 0000 ... | | | 61-1793735 .. | ..... | ..... | ..... | Cornerstone Permanent Mortgage Fund IV LLC .. | .. MA..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 100.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 90-0991195 .. | ..... | 0001597511 .. | ..... | Gateway Mezzanine Partners II LP | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership/Influence | .. 34.300 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 90-0991195 .. | ..... | 0001597511 .. | ..... | Gateway Mezzanine Partners II LP | .. DE..... | .. NIA..... | C.M. Life Insurance Company | Ownership..... | .. 5.100 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 90-0991195 .. | ..... | 0001597511 .. | ..... | Gateway Mezzanine Partners II LP | .. DE..... | .. NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 37-1708623 .. | ..... | ..... | ..... | Great Lakes III, L.P. | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership/Influence | .. 41.500 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 37-1708623 .. | ..... | ..... | ..... | Great Lakes III, L.P. | .. DE..... | .. NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | GIA EU Holdings – Emerson JV Sarl | .. LUX..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership/Influence | .. 54.100 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | GIA EU Holdings – Emerson JV Sarl | .. LUX..... | .. NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 38-4041011 .. | ..... | ..... | ..... | JPMCC Commercial Mortgage Securities Trust 2017-JP7 | .. NY..... | .. NIA..... | Barings LLC | Influence..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 38-4032059 .. | ..... | ..... | ..... | JPMDB Commercial Mortgage Securities Trust 2017-C5 | .. NY..... | .. NIA..... | Barings LLC | Influence..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Miami Douglas Three MM LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 100.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 87-4021641 .. | ..... | ..... | ..... | MM BIG Peninsula Co-Invest Member LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 25.600 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 87-4021641 .. | ..... | ..... | ..... | MM BIG Peninsula Co-Invest Member LLC | .. DE..... | .. NIA..... | C.M. Life Insurance Company | Ownership..... | .. 0.800 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | MM CM Holding LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 100.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Direct Private Invetment Holding | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 100.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 81-3000420 .. | ..... | ..... | ..... | MM Debt Participations LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership/Influence | .. 100.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 81-3000420 .. | ..... | ..... | ..... | MM Debt Participations LLC | .. DE..... | .. NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 20-8856877 .. | ..... | ..... | ..... | Somerset Special Opportunities Fund L.P. | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership/Influence | .. 40.100 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 20-8856877 .. | ..... | ..... | ..... | Somerset Special Opportunities Fund L.P. | .. DE..... | .. NIA..... | C.M. Life Insurance Company | Ownership..... | .. 1.900 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 35-2553915 .. | ..... | ..... | ..... | Ten Fan Pier Boulevard LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 100.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 41-2280127 .. | ..... | ..... | ..... | Tower Square Capital Partners III, L.P. | .. DE..... | .. NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 41-2280127 .. | ..... | ..... | ..... | Tower Square Capital Partners III, L.P. | .. DE..... | .. NIA..... | MassMutual Holding LLC | Ownership/Influence | .. 16.800 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 41-2280129 .. | ..... | ..... | ..... | Tower Square Capital Partners IIIA, L.P. | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership/Influence | .. 95.000 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 41-2280129 .. | ..... | ..... | ..... | Tower Square Capital Partners IIIA, L.P. | .. DE..... | .. NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Trailside MM Member LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 66.970 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Trailside MM Member LLC | .. DE..... | .. NIA..... | C.M. Life Insurance Company | Ownership..... | .. 7.400 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Trailside MM Member II LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 47.100 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 83-1325764 .. | ..... | ..... | ..... | Washington Gateway Two LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 96.020 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 83-1325764 .. | ..... | ..... | ..... | Washington Gateway Two LLC | .. DE..... | .. NIA..... | C.M. Life Insurance Company | Ownership..... | .. 0.100 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 32-0574045 .. | ..... | ..... | ..... | Washington Gateway Three LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 95.380 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 32-0574045 .. | ..... | ..... | ..... | Washington Gateway Three LLC | .. DE..... | .. NIA..... | C.M. Life Insurance Company | Ownership..... | .. 11.400 .. | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | | | | Washington Pine LLC | .. DE..... | .. NIA..... | Massachusetts Mutual Life Insurance Company .. | Ownership..... | .. 100.000 .. | MMLIC | | |

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| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Ownership Provide Percentage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| . 0000 ... | | | 88-3861481 .. | ..... | ..... | ..... | West 37th Street Hotel LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..93.800 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 88-3861481 .. | ..... | ..... | ..... | West 37th Street Hotel LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..6.300 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Martello Re Limited | .. BMJ..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership/Influence | ..0.300 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Babson Capital Loan Strategies Master Fund LP | .. CYM..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings China Aggregate Bond Private Securities Investment Fund | .. CHN..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings European Growth Trust Fund | .. GBR..... | NIA..... | Barings LLC | Ownership/Influence | ..28.600 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 47-3790192 .. | ..... | ..... | ..... | Barings Global High Yield Fund | .. MA..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | CCIC Fund | .. CHN..... | NIA..... | Barings LLC | Ownership/Influence | ..72.100 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 71-1018134 .. | ..... | ..... | ..... | Great Lakes II LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..10.600 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 71-1018134 .. | ..... | ..... | ..... | Great Lakes II LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..0.980 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Wood Creek Venture Fund LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..40.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 13-1935920 .. | ..... | ..... | ..... | MMLIC Debt Participations LLC | .. DE..... | NIA..... | Massachusetts Mutual Ascend | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings California Mortgage Fund IV | .. CA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Umbrella Fund LUX SCSp SICAV RAIF ... | .. LUX..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..50.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Barings Umbrella Fund LUX SCSp SICAV RAIF ... | .. LUX..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..2.300 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-2285211 .. | ..... | ..... | ..... | Calgary Railway Holding LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..90.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-2285211 .. | ..... | ..... | ..... | Calgary Railway Holding LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..10.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3307907 .. | ..... | ..... | ..... | Cornbrook PRS Holdings LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 95-4207717 .. | ..... | ..... | ..... | Cornerstone California Mortgage Fund I LLC .. | .. CA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 95-4207717 .. | ..... | ..... | ..... | Cornerstone California Mortgage Fund II LLC .. | .. CA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 95-4207717 .. | ..... | ..... | ..... | Cornerstone California Mortgage Fund III LLC .. | .. CA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 56-2630592 .. | ..... | ..... | ..... | Cornerstone Fort Pierce Development LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..90.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 56-2630592 .. | ..... | ..... | ..... | Cornerstone Fort Pierce Development LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..5.900 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-2632610 .. | ..... | ..... | ..... | Cornerstone Permanent Mortgage Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-2632610 .. | ..... | ..... | ..... | Cornerstone Permanent Mortgage Fund | .. MA..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 61-1750537 .. | ..... | ..... | ..... | Cornerstone Permanent Mortgage Fund II | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 61-1750537 .. | ..... | ..... | ..... | Cornerstone Permanent Mortgage Fund II | .. MA..... | NIA..... | Barings LLC | Management..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 61-1793735 .. | ..... | ..... | ..... | Cornerstone Permanent Mortgage Fund IV | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 20-0348173 .. | ..... | ..... | ..... | CREA/PPC Venture LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..28.500 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-2783393 .. | ..... | ..... | ..... | Danville Riverwalk Venture, LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..94.400 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | | | | DPI Acres Capital SPV LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC | | |

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| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | Euro Real Estate Holdings LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..50.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 20-3347091 .. | ..... | ..... | ..... | Fan Pier Development LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..65.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 20-3347091 .. | ..... | ..... | ..... | Fan Pier Development LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | .. 5.900 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | GIA EU Holdings LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 81-5360103 .. | ..... | ..... | ..... | Landmark Manchester Holdings LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Brookhaven Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..95.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Kannapolis Industrial Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..82.720 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Kannapolis Industrial Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Ascend | Ownership..... | ..12.300 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM MD1 Station Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..47.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM MD1 Station Member LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | .. 3.100 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM MD2 Station Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..47.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM MD2 Station Member LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | .. 3.100 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM East South Crossing Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..95.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Horizon Savannah Member LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..95.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Horizon Savannah Member LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | .. 3.700 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM National Self-Storage Program Member LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..98.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM 1400 E 4th Street Member LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | ..96.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MassMutual Ventures US IV GP | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..99.000 | MMLC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MassMutual Ventures US IV GP | .. DE..... | NIA..... | Massachusetts Mutual Ascend | Ownership..... | .. 1.000 | MMLC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MassMutual Venture US IV LP | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..99.000 | MMLC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MMV Climate Technology Fund GP | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..99.000 | MMLC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MMV Climate Technology Fund GP | .. DE..... | NIA..... | Massachusetts Mutual Ascend | Ownership..... | .. 1.000 | MMLC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | MM Subline Borrower LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLC ..... | ..... | ..... |
| . 0000 ... | | | 80-0948028 .. | ..... | ..... | ..... | One Harbor Shore LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..94.990 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 80-0948028 .. | ..... | ..... | ..... | One Harbor Shore LLC | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | .. 6.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-1590850 .. | ..... | ..... | ..... | PACO France Logistics LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | | | | | Salomon Brothers Commercial Mortgage Trust 2001-MM | .. DE..... | NIA..... | Barings Real Estate Advisers LLC | Influence..... | ..... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 81-5273574 .. | ..... | ..... | ..... | Three PW Office Holding LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..95.100 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3250684 .. | ..... | ..... | ..... | Unna, Dortmund Holding LLC | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-5401109 .. | ..... | ..... | ..... | Washington Gateway Apartments Venture LLC ... | .. DE..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..95.440 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-5401109 .. | | | | Washington Gateway Apartments Venture LLC ... | .. DE..... | NIA..... | C.M. Life Insurance Company | Ownership..... | .. 4.800 | MMLIC | | |

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| . 0000 ... | | | 51-0529328 .. | | 0000927972 .. | OQ | MassMutual Premier Main Street Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..88.700 | MMLIC | | |
| . 0000 ... | | | 26-3229251 .. | ..... | 0000927972 .. | OQ | MassMutual Premier Strategic Emerging Markets Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..26.930 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3512593 .. | ..... | 0000916053 .. | OQ | MassMutual Select Fundamental Growth Fund ... | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..3.820 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 42-1710935 .. | ..... | 0000916053 .. | OQ | MassMutual Select Mid-Cap Value Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..30.030 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 02-0769954 .. | ..... | 0000916053 .. | OQ | MassMutual Select Small Capital Value Equity Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3584140 .. | ..... | 0000916053 .. | OQ | MassMutual Select Small Company Value Fund .. | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..18.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3347422 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2005 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..5.300 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3355639 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2010 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3382389 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2015 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3396442 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2020 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3417420 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2025 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3430358 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2030 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3439837 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2035 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3451779 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2040 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3472295 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2045 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3481715 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2050 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3502011 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2055 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3525148 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement 2060 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 82-3533944 .. | ..... | 0000916053 .. | OQ | MassMutual Select T. Rowe Price Retirement Balanced Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 46-4257056 .. | ..... | ..... | ..... | MML Series International Equity Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..100.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 47-3529636 .. | ..... | ..... | ..... | MML Series II Dynamic Bond Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..0.000 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 47-3544629 .. | ..... | ..... | ..... | MML Series II Equity Rotation Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..95.900 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 27-1933389 .. | ..... | 0000916053 .. | OQ | MassMutual RetireSMART 2035 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..3.700 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 27-1932769 .. | ..... | 0000916053 .. | OQ | MassMutual RetireSMART 2045 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..8.600 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 46-3289207 .. | ..... | 0000916053 .. | OQ | MassMutual RetireSMART 2055 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..24.400 | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 47-5326235 .. | ..... | 0000916053 .. | OQ | MassMutual RetireSMART 2060 Fund | .. MA..... |NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..42.700 | MMLIC ..... | ..... | ..... |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 |
|------------|------------|-------------------|---------------|--------------|---------------|--|---|-----------------------|-----------------------------------|---|--|--|--|--------------------------------------|-------|
| Group Code | Group Name | NAIC Company Code | ID Number | Federal RSSD | CIK | Name of Securities Exchange if Publicly Traded (U.S. or International) | Names of Parent, Subsidiaries Or Affiliates | Domi-ciliary Location | Relation-ship to Reporting Entity | Directly Controlled by (Name of Entity/Person) | Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other) | If Control is Owner-ship Provide Percen-tage | Ultimate Controlling Entity(ies)/Person(s) | Is an SCA Filing Re-quired? (Yes/No) | * |
| . 0000 ... | | | 45-1618155 .. | ..... | 0000916053 .. | OQ | MassMutual 20/80 Allocation Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-1618222 .. | ..... | 0000916053 .. | OQ | MassMutual 80/20 Allocation Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..45.200 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 03-0532464 .. | ..... | 0000916053 .. | OQ | MassMutual RetireSMART In Retirement Fund ... | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..2.100 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-1618262 .. | ..... | 0000916053 .. | OQ | MassMutual 40/60 Allocation Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Influence..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-1618046 .. | ..... | 0000916053 .. | OQ | MassMutual 60/40 Allocation Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-1618046 .. | ..... | 0000916053 .. | OQ | MassMutual ishares 60/40 Allocation Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..72.200 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3212054 .. | ..... | 0000916053 .. | OQ | MassMutual Balanced Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3556992 .. | ..... | 0000916053 .. | OQ | MassMutual Blue Chip Growth Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3277549 .. | ..... | 0000916053 .. | OQ | MassMutual Core Bond Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3539084 .. | ..... | 0000916053 .. | OQ | MassMutual Disciplined Growth Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3539083 .. | ..... | 0000916053 .. | OQ | MassMutual Disciplined Value Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 01-0821120 .. | ..... | 0000916053 .. | OQ | MassMutual Diversified Value Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3512590 .. | ..... | 0000916053 .. | OQ | MassMutual Equity Opportunities Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3512589 .. | ..... | 0000916053 .. | OQ | MassMutual Growth Opportunities Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 03-0532475 .. | ..... | 0000916053 .. | OQ | MassMutual Inflation-Protected and Income Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3512596 .. | ..... | 0000916053 .. | OQ | MassMutual Mid Cap Growth Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3464165 .. | ..... | 0000916053 .. | OQ | MassMutual Premier Diversified Bond Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 92-1441036 .. | ..... | 0000916053 .. | OQ | MassMutual RetireSMART by JPMorgan 2065 Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 45-1618222 .. | ..... | 0000916053 .. | OQ | MassMutual Select 80/20 Allocation Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3584138 .. | ..... | 0000916053 .. | OQ | MassMutual Select Fundamental Value Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3557000 .. | ..... | 0000916053 .. | OQ | MassMutual Select Overseas Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 92-1427882 .. | ..... | 0000916053 .. | OQ | MassMutual Select T Rowe Price Retirement 2065 Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..98.100 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3464205 .. | ..... | 0000916053 .. | OQ | MassMutual Small Cap Growth Equity Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 04-3424705 .. | ..... | 0000916053 .. | OQ | MassMutual Small Cap Opportunities Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 02-0769954 .. | ..... | 0000916053 .. | OQ | MassMutual Small Cap Value Equity Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |
| . 0000 ... | | | 26-0099965 .. | ..... | 0000916053 .. | OQ | MassMutual Strategic Bond Fund | .. MA..... | NIA..... | Massachusetts Mutual Life Insurance Company | Ownership..... | ..100.000 ... | MMLIC ..... | ..... | ..... |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

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

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

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

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

AUGUST FILING

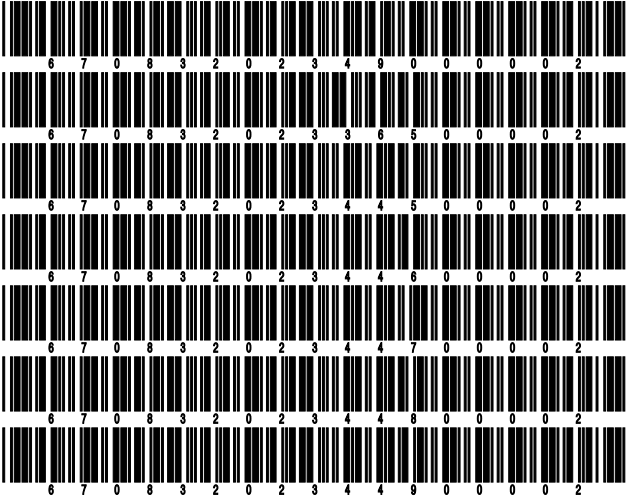
| | |
|--|-----|
| 9. Will the regulator-only (non-public) Communication of Internal Control Related Matters Noted in Audit be filed with the state of domicile and electronically with the NAIC (as a regulator-only non-public document) by August 1? The response for 1st and 3rd quarters should be N/A.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

Explanation:

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

Bar Code:

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



NONE

SCHEDULE A - VERIFICATION

Real Estate

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

SCHEDULE B - VERIFICATION

Mortgage Loans

| | 1 Year to Date | 2 Prior Year Ended December 31 |
|---|-------------------|--------------------------------------|
| 1. Book value/recorded investment excluding accrued interest, December 31 of prior year | | |
| 2. Cost of acquired: | | |
| 2.1 Actual cost at time of acquisition | | |
| 2.2 Additional investment made after acquisition | | |
| 3. Capitalized deferred interest and other | | |
| 4. Accrual of discount | | |
| 5. Unrealized valuation increase (decrease) | | |
| 6. Total gain (loss) on disposals | | |
| 7. Deduct amounts received on disposals | | |
| 8. Deduct amortization of premium and mortgage interest paid and commitment fees | | |
| 9. Total foreign exchange change in book value/recorded investment excluding accrued interest | | |
| 10. Deduct current year's other than temporary impairment recognized | | |
| 11. Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) | | |
| 12. Total valuation allowance | | |
| 13. Subtotal (Line 11 plus Line 12) | | |
| 14. Deduct total nonadmitted amounts | | |
| 15. Statement value at end of current period (Line 13 minus Line 14) | | |

SCHEDULE BA - VERIFICATION

Other Long-Term Invested Assets

| | 1 Year to Date | 2 Prior Year Ended December 31 |
|--|-------------------|--------------------------------------|
| 1. Book/adjusted carrying value, December 31 of prior year | | |
| 2. Cost of acquired: | | |
| 2.1 Actual cost at time of acquisition | | |
| 2.2 Additional investment made after acquisition | | |
| 3. Capitalized deferred interest and other | | |
| 4. Accrual of discount | | |
| 5. Unrealized valuation increase (decrease) | | |
| 6. Total gain (loss) on disposals | | |
| 7. Deduct amounts received on disposals | | |
| 8. Deduct amortization of premium and depreciation | | |
| 9. Total foreign exchange change in book/adjusted carrying value | | |
| 10. Deduct current year's other than temporary impairment recognized | | |
| 11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) | | |
| 12. Deduct total nonadmitted amounts | | |
| 13. Statement value at end of current period (Line 11 minus Line 12) | | |

SCHEDULE D - VERIFICATION

Bonds and Stocks

| | 1 Year to Date | 2 Prior Year Ended December 31 |
|---|-------------------|--------------------------------------|
| 1. Book/adjusted carrying value of bonds and stocks, December 31 of prior year | 111,899,875 | 106,415,916 |
| 2. Cost of bonds and stocks acquired | 13,920,506 | 14,016,958 |
| 3. Accrual of discount | 200,081 | 397,796 |
| 4. Unrealized valuation increase (decrease) | 0 | 46,833 |
| 5. Total gain (loss) on disposals | (674,299) | (2,359) |
| 6. Deduct consideration for bonds and stocks disposed of | 10,056,641 | 8,831,270 |
| 7. Deduct amortization of premium | 52,573 | 132,343 |
| 8. Total foreign exchange change in book/adjusted carrying value | 0 | 0 |
| 9. Deduct current year's other than temporary impairment recognized | 1 | 11,656 |
| 10. Total investment income recognized as a result of prepayment penalties and/or acceleration fees | 0 | 0 |
| 11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10) | 115,236,948 | 111,899,875 |
| 12. Deduct total nonadmitted amounts | 0 | 0 |
| 13. Statement value at end of current period (Line 11 minus Line 12) | 115,236,948 | 111,899,875 |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE D - PART 1B

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

| NAIC Designation | 1 Book/Adjusted Carrying Value Beginning of Current Quarter | 2 Acquisitions During Current Quarter | 3 Dispositions During Current Quarter | 4 Non-Trading Activity During Current Quarter | 5 Book/Adjusted Carrying Value End of First Quarter | 6 Book/Adjusted Carrying Value End of Second Quarter | 7 Book/Adjusted Carrying Value End of Third Quarter | 8 Book/Adjusted Carrying Value December 31 Prior Year |
|-------------------------------------|---|--|--|--|---|--|---|---|
| BONDS | | | | | | | | |
| 1. NAIC 1 (a) | 62,639,677 | 12,524,515 | 11,730,559 | (2,258,944) | 62,639,677 | 61,174,689 | 0 | 53,858,078 |
| 2. NAIC 2 (a) | 52,101,414 | 34,996,624 | 27,000,000 | (3,838,071) | 52,101,414 | 56,259,968 | 0 | 58,290,239 |
| 3. NAIC 3 (a) | 154,811 | 0 | 0 | (154,811) | 154,811 | 0 | 0 | 934,102 |
| 4. NAIC 4 (a) | 1,476,094 | 0 | 0 | 98,746 | 1,476,094 | 1,574,840 | 0 | 1,475,363 |
| 5. NAIC 5 (a) | 452,039 | 0 | 1,036 | (91,464) | 452,039 | 359,539 | 0 | 2,426,970 |
| 6. NAIC 6 (a) | 974,784 | 0 | 0 | 1,021,459 | 974,784 | 1,996,243 | 0 | |
| 7. Total Bonds | 117,798,819 | 47,521,139 | 38,731,595 | (5,223,084) | 117,798,819 | 121,365,279 | 0 | 116,984,752 |
| PREFERRED STOCK | | | | | | | | |
| 8. NAIC 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 9. NAIC 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 10. NAIC 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 11. NAIC 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 12. NAIC 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 13. NAIC 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 14. Total Preferred Stock | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15. Total Bonds and Preferred Stock | 117,798,819 | 47,521,139 | 38,731,595 | (5,223,084) | 117,798,819 | 121,365,279 | 0 | 116,984,752 |

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

NAIC 1 \$ 4,132,979 ; NAIC 2 \$ 1,995,351 ; NAIC 3 \$ 0 NAIC 4 \$ 0 ; NAIC 5 \$ 0 ; NAIC 6 \$ 0

Schedule DA - Part 1 - Short-Term Investments

N O N E

Schedule DA - Verification - Short-Term Investments

N O N E

Schedule DB - Part A - Verification - Options, Caps, Floors, Collars, Swaps and Forwards

N O N E

Schedule DB - Part B - Verification - Futures Contracts

N O N E

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

N O N E

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

N O N E

Schedule DB - Verification - Book/Adjusted Carrying Value, Fair Value and Potential Exposure of
Derivatives

N O N E

SCHEDULE E - PART 2 - VERIFICATION

(Cash Equivalents)

| | 1 | 2 |
|---|--------------|---------------------------------|
| | Year To Date | Prior Year Ended December 31 |
| 1. Book/adjusted carrying value, December 31 of prior year | 12,521,902 | 21,456,915 |
| 2. Cost of cash equivalents acquired | 104,163,992 | 135,192,274 |
| 3. Accrual of discount | 30,324 | 0 |
| 4. Unrealized valuation increase (decrease) | | 4,977 |
| 5. Total gain (loss) on disposals | 451 | (36) |
| 6. Deduct consideration received on disposals | 110,588,339 | 144,132,229 |
| 7. Deduct amortization of premium | | 0 |
| 8. Total foreign exchange change in book/adjusted carrying value | | 0 |
| 9. Deduct current year's other than temporary impairment recognized | | 0 |
| 10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) | 6,128,330 | 12,521,902 |
| 11. Deduct total nonadmitted amounts | | 0 |
| 12. Statement value at end of current period (Line 10 minus Line 11) | 6,128,330 | 12,521,902 |

Schedule A - Part 2 - Real Estate Acquired and Additions Made

N O N E

Schedule A - Part 3 - Real Estate Disposed

N O N E

Schedule B - Part 2 - Mortgage Loans Acquired and Additions Made

N O N E

Schedule B - Part 3 - Mortgage Loans Disposed, Transferred or Repaid

N O N E

Schedule BA - Part 2 - Other Long-Term Invested Assets Acquired and Additions Made

N O N E

Schedule BA - Part 3 - Other Long-Term Invested Assets Disposed, Transferred or Repaid

N O N E

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE D - PART 3

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

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|--|--|---------|-----------------------|----------------------------|---------------------------|-------------|-----------|---|---|
| CUSIP Identification | Description | Foreign | Date Acquired | Name of Vendor | Number of Shares of Stock | Actual Cost | Par Value | Paid for Accrued Interest and Dividends | NAIC Designation, NAIC Designation Modifier and SVO Administrative Symbol |
| 91282C-HA-2 | United States Treasury N-UNSECURED ..... | ..... | .....05/12/2023 | GOLDMAN | | 1,104,770 | 1,100,000 | 1,569 | 1.A |
| 0109999999. Subtotal - Bonds - U.S. Governments | | | | | | 1,104,770 | 1,100,000 | 1,569 | XXX |
| 023135-CQ-7 | Amazon.com Inc-SENIOR UNSECURED ..... | ..... | .....05/04/2023 | TORONTO DOMINION SEC | | 926,901 | 900,000 | 18,251 | 1.D FE |
| 12592B-AQ-7 | CNH Industrial Capital L-SENIOR UNSECURE ..... | ..... | .....05/04/2023 | JANE | | 994,400 | 1,000,000 | 3,539 | 2.B FE |
| 15189Y-AQ-1 | CenterPoint Energy Resou-SENIOR UNSECURE ..... | ..... | .....05/04/2023 | WELLS FARGO | | 1,038,970 | 1,000,000 | 10,938 | 1.G FE |
| 22822V-BB-6 | Crown Castle Inc-SENIOR UNSECURED ..... | ..... | .....05/04/2023 | WELLS FARGO | | 1,007,150 | 1,000,000 | 1,600 | 2.B FE |
| 49177J-AE-2 | Kenvue Inc-SENIOR UNSECURED ..... | ..... | .....05/04/2023 | GOLDMAN | | 937,935 | 900,000 | 5,808 | 1.F FE |
| 571676-AT-2 | Mars Inc-SENIOR UNSECURED ..... | ..... | .....05/04/2023 | MITSUBISHI UFJ SEC I | | 1,017,650 | 1,000,000 | 2,275 | 1.E FE |
| 760759-BB-5 | Republic Services Inc-SENIOR UNSECURED ..... | ..... | .....05/04/2023 | JP MORGAN SECURITIES | | 1,029,700 | 1,000,000 | 5,417 | 2.A FE |
| 855244-AT-6 | Starbucks Corp-SENIOR UNSECURED ..... | ..... | .....05/04/2023 | JP MORGAN SECURITIES | | 965,310 | 1,000,000 | 8,185 | 2.A FE |
| 874054-AK-5 | Take-Two Interactive Sof-SENIOR UNSECURE ..... | ..... | .....05/04/2023 | JANE | | 1,013,240 | 1,000,000 | 3,300 | 2.B FE |
| 1109999999. Subtotal - Bonds - Industrial and Miscellaneous (Unaffiliated) | | | | | | 8,931,256 | 8,800,000 | 59,313 | XXX |
| 2509999997. Total - Bonds - Part 3 | | | | | | 10,036,026 | 9,900,000 | 60,882 | XXX |
| 2509999998. Total - Bonds - Part 5 | | | | | | XXX | XXX | XXX | XXX |
| 2509999999. Total - Bonds | | | | | | 10,036,026 | 9,900,000 | 60,882 | XXX |
| 4509999997. Total - Preferred Stocks - Part 3 | | | | | | 0 | XXX | 0 | XXX |
| 4509999998. Total - Preferred Stocks - Part 5 | | | | | | XXX | XXX | XXX | XXX |
| 4509999999. Total - Preferred Stocks | | | | | | 0 | XXX | 0 | XXX |
| 5989999997. Total - Common Stocks - Part 3 | | | | | | 0 | XXX | 0 | XXX |
| 5989999998. Total - Common Stocks - Part 5 | | | | | | XXX | XXX | XXX | XXX |
| 5989999999. Total - Common Stocks | | | | | | 0 | XXX | 0 | XXX |
| 5999999999. Total - Preferred and Common Stocks | | | | | | 0 | XXX | 0 | XXX |
| 6009999999 - Totals | | | | | | 10,036,026 | XXX | 60,882 | XXX |

STATEMENT AS OF JUNE 30, 2023 OF THE MANHATTAN NATIONAL LIFE INSURANCE COMPANY

SCHEDULE D - PART 4

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

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Change In Book/Adjusted Carrying Value | | | | | 16 | 17 | 18 | 19 | 20 | 21 | 22 |
|---|--|--------------|------------------|---------------------------|---------------------------------|--------------------|-----------|----------------|--|--|--|---|---|---|---|--|---|-------------------------------------|---|--|--|
| | | | | | | | | | | 11 | 12 | 13 | 14 | 15 | | | | | | | |
| CUSIP Ident-ification | Description | For- eign | Disposal Date | Name of Purchaser | Number of Shares of Stock | Consid- eration | Par Value | Actual Cost | Prior Year Book/ Adjusted Carrying Value | Unrealized Valuation Increase/ (Decrease) | Current Year's (Amor- tization)/ Accretion | Current Year's Other Than Temporary Impairment Recogn- ized | Total Change in Book/ Adjusted Carrying Value (11 + 12 - 13) | Total Foreign Exchange Change in Book /Adjusted Carrying Value | Book/ Adjusted Carrying Value at Disposal Date | Foreign Exchange Gain (Loss) on Disposal | Realized Gain (Loss) on Disposal | Total Gain (Loss) on Disposal | Bond Interest/ Stock Dividends Received During Year | Stated Con- tractual Maturity Date | NAIC Desig- nation, NAIC Desig- nation Modifier and SVO Admini- strative Symbol |
| ..36207H-VH-7 | Ginnie Mae I Pool-POOL #432716 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 99 | 99 | 100 | 98 | 0 | 1 | 0 | 1 | 0 | 99 | 0 | 0 | 0 | 3 | 06/01/2026 | 1.A |
| ..36208C-Y9-2 | Ginnie Mae I Pool-POOL #447236 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 34 | 34 | 34 | 34 | 0 | 0 | 0 | 0 | 0 | 34 | 0 | 0 | 0 | 1 | 06/01/2027 | 1.A |
| ..912828-4S-6 | United States Treasury N-UNSECURED ..... | ..... | 05/31/2023 | MATURITY ..... | ..... | 1,000,000 | 1,000,000 | 999,219 | 999,924 | 0 | 76 | 0 | 76 | 0 | 1,000,000 | 0 | 0 | 0 | 16,501 | 05/31/2023 | 1.A |
| 0109999999. Subtotal - Bonds - U.S. Governments | | | | | | 1,000,133 | 1,000,133 | 999,353 | 1,000,056 | 0 | 77 | 0 | 77 | 0 | 1,000,133 | 0 | 0 | 0 | 16,505 | XXX | XXX |
| ..31287P-D8-3 | Freddie Mac Gold Pool-FG C63727 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 86 | 86 | 85 | 81 | 0 | 5 | 0 | 5 | 0 | 86 | 0 | 0 | 0 | 2 | 02/01/2032 | 1.A |
| ..31287S-6R-3 | Freddie Mac Gold Pool-FG C67180 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 90 | 90 | 91 | 88 | 0 | 2 | 0 | 2 | 0 | 90 | 0 | 0 | 0 | 2 | 05/01/2032 | 1.A |
| ..31287S-FS-1 | Freddie Mac Gold Pool-FG C66477 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 122 | 122 | 123 | 117 | 0 | 5 | 0 | 5 | 0 | 122 | 0 | 0 | 0 | 3 | 04/01/2032 | 1.A |
| ..31287T-GK-5 | Freddie Mac Gold Pool-FG C67402 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 35 | 35 | 35 | 33 | 0 | 2 | 0 | 2 | 0 | 35 | 0 | 0 | 0 | 1 | 05/01/2032 | 1.A |
| ..31287U-EQ-1 | Freddie Mac Gold Pool-FG C68243 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 48 | 48 | 48 | 23 | 0 | 25 | 0 | 25 | 0 | 48 | 0 | 0 | 0 | 1 | 06/01/2032 | 1.A |
| ..31288H-7A-2 | Freddie Mac Gold Pool-FG C78989 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 404 | 404 | 415 | 334 | 0 | 70 | 0 | 70 | 0 | 404 | 0 | 0 | 0 | 9 | 05/01/2033 | 1.A |
| ..31292G-5V-4 | Freddie Mac Gold Pool-FG C00860 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 192 | 192 | 193 | 169 | 0 | 23 | 0 | 23 | 0 | 192 | 0 | 0 | 0 | 6 | 09/01/2029 | 1.A |
| ..31292H-NH-3 | Freddie Mac Gold Pool-FG C01292 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 1,555 | 1,555 | 1,561 | 1,231 | 0 | 325 | 0 | 325 | 0 | 1,555 | 0 | 0 | 0 | 37 | 02/01/2032 | 1.A |
| ..31292H-ON-7 | Freddie Mac Gold Pool-FG C01361 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 216 | 216 | 218 | 204 | 0 | 12 | 0 | 12 | 0 | 216 | 0 | 0 | 0 | 5 | 05/01/2032 | 1.A |
| ..313398-FC-8 | Freddie Mac REMICS-FHR 2333 UZ ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 553 | 553 | 532 | 638 | 0 | (85) | 0 | (85) | 0 | 553 | 0 | 0 | 0 | 15 | 07/01/2031 | 1.A |
| ..31331T-RX-1 | Freddie Mac REMICS-FHR 2329 ZA ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 5,222 | 5,222 | 4,960 | 5,805 | 0 | (583) | 0 | (583) | 0 | 5,222 | 0 | 0 | 0 | 148 | 06/01/2031 | 1.A |
| ..31331V-FW-2 | Freddie Mac REMICS-FHR 2355 CE ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 737 | 737 | 728 | 730 | 0 | 7 | 0 | 7 | 0 | 737 | 0 | 0 | 0 | 18 | 09/01/2031 | 1.A |
| ..313920-CW-8 | Fannie Mae REMICS-FMR 2001-31 ZC ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 7,062 | 7,062 | 7,089 | 7,688 | 0 | (626) | 0 | (626) | 0 | 7,062 | 0 | 0 | 0 | 168 | 07/01/2031 | 1.A |
| ..913366-DG-2 | Regents of the Universit-REVENUE BONDS ..... | ..... | 05/15/2023 | CALL 100 ..... | ..... | 65,000 | 65,000 | 64,622 | 64,832 | 0 | 14 | 0 | 14 | 0 | 64,847 | 0 | 154 | 154 | 2,099 | 05/15/2029 | 1.D FE |
| ..92812U-O3-5 | Virginia Housing Develop-REVENUE BONDS ..... | ..... | 06/25/2023 | CALL 100 ..... | ..... | 6,146 | 6,146 | 6,146 | 6,135 | 0 | 0 | 0 | 0 | 0 | 6,135 | 0 | 11 | 11 | 118 | 12/25/2043 | 1.A FE |
| 0909999999. Subtotal - Bonds - U.S. Special Revenues | | | | | | 87,468 | 87,468 | 86,846 | 88,108 | 0 | (804) | 0 | (804) | 0 | 87,304 | 0 | 165 | 165 | 2,632 | XXX | XXX |
| ..02665U-AA-3 | AMERICAN HOMES 4 RENT-SERIES 2014-SFR2 C .... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 2,878 | 2,878 | 2,960 | 2,893 | 0 | (15) | 0 | (15) | 0 | 2,878 | 0 | 0 | 0 | 44 | 10/01/2036 | 1.A FE |
| ..038923-AD-0 | Arbor Realty Trust Inc-SENIOR UNSECURED ..... | ..... | 05/01/2023 | MATURITY ..... | ..... | 2,000,000 | 2,000,000 | 1,999,740 | 2,000,000 | 0 | 0 | 0 | 0 | 0 | 2,000,000 | 0 | 0 | 0 | 56,250 | 05/01/2023 | 1.F PL |
| ..05949T-AX-7 | Banc of America Funding -BAFC 2006-1 1A2 ..... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 1,481 | 1,481 | 1,448 | 1,466 | 0 | 15 | 0 | 15 | 0 | 1,481 | 0 | 0 | 0 | 36 | 01/01/2036 | 1.A FM |
| ..12667F-EG-6 | Alternative Loan Trust 2-CWALT 2004-J2 3 .... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 1,412 | 1,412 | 1,389 | 1,406 | 0 | 6 | 0 | 6 | 0 | 1,412 | 0 | 0 | 0 | 45 | 04/01/2034 | 1.A FM |
| ..126694-LC-0 | CHL Mortgage Pass-Through-CWHL 2005-24 A3 .... | ..... | 06/01/2023 | PAYDOWN ..... | ..... | 1,036 | 1,037 | 956 | 957 | 0 | 80 | 0 | 80 | 0 | 1,036 | 0 | 0 | 0 | 23 | 11/01/2035 | 5.C FM |
| ..16165Y-AV-4 | ChaseFlex Trust Multi-C1-CFLX 2007-M1 2F ..... | ..... | 05/01/2023 | PAYDOWN ..... | ..... | 3,326 | 2,559 | 2,221 | 1,680 | 0 | 984 | 0 | 984 | 0 | 3,326 | 0 | 0 | 0 | 39 | 08/01/2037 | 1.A FM |
| ..46617F-AA-2 | JGWPT XXVIII LLC-HENDR 2013-1A 1A ..... | ..... | 06/15/2023 | PAYDOWN ..... | ..... | 4,817 | 4,817 | 4,814 | 4,813 | 0 | 4 | 0 | 4 | 0 | 4,817 | 0 | 0 | 0 | 68 | 04/15/2067 | 1.A FE |
| ..85208N-AD-2 | Sprint Spectrum Co LLC -FIRST LIEN ..... | ..... | 06/20/2023 | SINKING PAYMENT ..... | ..... | 125,000 | 125,000 | 125,000 | 125,000 | 0 | 0 | 0 | 0 | 0 | 125,000 | 0 | 0 | 0 | 2,961 | 03/20/2025 | 1.F FE |
| ..60687Y-CL-1 | Mizuho Financial Group I-SENIOR UNSECURE | D..... | 05/22/2023 | SMBC NIKKO SECURITIE .... | ..... | 998,550 | 1,000,000 | 1,004,550 | 0 | 0 | (339) | 0 | (339) | 0 | 1,004,210 | 0 | (5,661) | (5,661) | 37,748 | 09/13/2028 | 1.G FE |
| 11099999999. Subtotal - Bonds - Industrial and Miscellaneous (Unaffiliated) | | | | | | 3,138,500 | 3,139,184 | 3,143,078 | 2,138,215 | 0 | 735 | 0 | 735 | 0 | 3,144,160 | 0 | (5,661) | (5,661) | 97,214 | XXX | XXX |
| 25099999997. Total - Bonds - Part 4 | | | | | | 4,226,101 | 4,226,785 | 4,229,277 | 3,226,379 | 0 | 8 | 0 | 8 | 0 | 4,231,597 | 0 | (5,496) | (5,496) | 116,351 | XXX | XXX |
| 25099999998. Total - Bonds - Part 5 | | | | | | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX |
| 25099999999. Total - Bonds | | | | | | 4,226,101 | 4,226,785 | 4,229,277 | 3,226,379 | 0 | 8 | 0 | 8 | 0 | 4,231,597 | 0 | (5,496) | (5,496) | 116,351 | XXX | XXX |
| 45099999997. Total - Preferred Stocks - Part 4 | | | | | | 0 | XXX | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX | XXX |
| 45099999998. Total - Preferred Stocks - Part 5 | | | | | | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX |
| 45099999999. Total - Preferred Stocks | | | | | | 0 | XXX | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX | XXX |
| 59899999997. Total - Common Stocks - Part 4 | | | | | | 0 | XXX | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX | XXX |
| 59899999998. Total - Common Stocks - Part 5 | | | | | | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX | XXX |
| 59899999999. Total - Common Stocks | | | | | | 0 | XXX | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX | XXX |
| 59999999999. Total - Preferred and Common Stocks | | | | | | 0 | XXX | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | XXX | XXX |
| 60099999999 - Totals | | | | | | 4,226,101 | XXX | 4,229,277 | 3,226,379 | 0 | 8 | 0 | 8 | 0 | 4,231,597 | 0 | (5,496) | (5,496) | 116,351 | XXX | XXX |

Schedule DB - Part A - Section 1 - Options, Caps, Floors, Collars, Swaps and Forwards Open

N O N E

Schedule DB - Part B - Section 1 - Futures Contracts Open

N O N E

Schedule DB - Part B - Section 1B - Brokers with whom cash deposits have been made

N O N E

Schedule DB - Part D - Section 1 - Counterparty Exposure for Derivative Instruments Open

N O N E

Schedule DB - Part D-Section 2 - Collateral for Derivative Instruments Open - Pledged By

N O N E

Schedule DB - Part D-Section 2 - Collateral for Derivative Instruments Open - Pledged To

N O N E

Schedule DB - Part E - Derivatives Hedging Variable Annuity Guarantees

N O N E

Schedule DL - Part 1 - Reinvested Collateral Assets Owned

N O N E

Schedule DL - Part 2 - Reinvested Collateral Assets Owned

N O N E

SCHEDULE E - PART 1 - CASH

E13

SCHEDULE E - PART 2 - CASH EQUIVALENTS

[illegible]