

MassMutual Ascend Life Insurance Company (MMALIC)

Funds Withheld Reinsurance Supplement

Year Ended December 31, 2022

(Dollars in Millions)

| | December 31, 2022 | | |
|----------------------------------------------------|---------------------------------------------------|------------------------------|----------------------------------------------|
| | MMALIC, Gross of Funds Withheld Reinsurance | Funds Withheld Adjustment | MMALIC, Net of Funds Withheld Reinsurance |
| ASSET MIX | | | |
| Non-Affiliated | | | |
| Corporate Bonds | 16,145 | 5,401 | 10,744 |
| US Gov't, Agencies, Municipals, Foreign Gov't | 2,273 | 391 | 1,882 |
| RMBS | 2,738 | 1,493 | 1,245 |
| CMBS | 1,515 | 809 | 706 |
| Other ABS (including CLOs) | 10,155 | 2,732 | 7,423 |
| Mortgage Loans and Real Estate | 3,089 | 372 | 2,717 |
| Schedule BA Assets | 1,211 | 22 | 1,189 |
| Unaffiliated Stocks | 466 | 28 | 438 |
| Total Non-Affiliated | 37,592 | 11,248 | 26,344 |
| Affiliated | | | |
| Corporate Bonds | 106 | 70 | 36 |
| US Gov't, Agencies, Municipals, Foreign Gov't | 0 | 0 | 0 |
| RMBS | 0 | 0 | 0 |
| CMBS | 0 | 0 | 0 |
| Other ABS (including CLOs) | 400 | 226 | 174 |
| Mortgage Loans and Real Estate | 0 | 0 | 0 |
| Schedule BA Assets | 152 | 86 | 66 |
| Affiliated Stocks | 402 | 0 | 402 |
| Total Affiliated | 1,060 | 382 | 678 |
| Other | | | |
| Cash, Cash Equivalents, and Short-Term Investments | 1,991 | 975 | 1,016 |
| Derivatives | 873 | 0 | 873 |
| All Other | 174 | 0 | 174 |
| Total Other | 3,038 | 975 | 2,063 |
| Total Cash and Invested Assets | 41,690 | 12,605 | 29,085 |
| CREDIT QUALITY | | | |
| NAIC 1 | 17,729 | 5,548 | 12,181 |
| NAIC 2 | 13,435 | 4,752 | 8,683 |
| Investment Grade | 31,164 | 10,300 | 20,864 |
| NAIC 3 | 1,474 | 744 | 730 |
| NAIC 4 | 455 | 58 | 397 |
| NAIC 5 | 209 | 13 | 196 |
| NAIC 6 | 30 | 7 | 23 |
| Below Investment Grade | 2,168 | 822 | 1,346 |
| Total Bonds | 33,332 | 11,122 | 22,210 |