MassMutual Ascend Life Insurance Company (MMALIC) Funds Withheld Reinsurance Supplement

Year Ended June 30, 2024 (Dollars in Millions)

| ASSET MIX Reinstrance Withheld Adjustment Withheld Adjustment Withheld Adjustment Non-Affiliated 8.05.0 3.036 15.02 US GOVTA Agencies, Municipals, Foreign GoVT 1.620 3.036 15.02 US GOVTA, Agencies, Municipals, Foreign GoVT 1.1631 1.599 9.71 AMBS 2.914 1.332 1.581 CMBS 1.1313 1.599 9.71 Mortgage Loons and Real Estate 4.690 453 4.035 Schedule BA Assets 1.295 2.026 1.04 Unaffiliated 41.997 7.77 3.22 Affiliated Unaffiliated 41.997 7.77 3.22 Affiliated Schedule BA Assets 1.47 7.1 7.7 Multipague Loans and Real Estate 0 0 0 0 CMBS 0 1.07 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | June 30, 2024 | | |
|--|--|----------------|-------|--|
| ASSET MIX Non-Affiliabed 18,061 3,036 15,022 US Gov1, Agencies, Municipals, Foreign Gov1 1,620 89 1,532 I MS 2,914 1,332 1,585 CMBS 1,559 857 707 O'ther ABS (including CLOs) 11,313 1,599 9,71 Mortgage Loans and Real Estate 4,690 635 4,055 Schedule BA Assets 1,255 208 1,04 Unaffiliated 41,999 7,779 34,220 Affiliated Corporate Bonds 147 71 7 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 CMBS 0 0 0 0 CMBS 0 0 0 0 CMBS <t< th=""><th></th><th>Funds Withheld</th><th></th><th>MMALIC, Net of Funds Withheld Reinsurance</th></t<> | | Funds Withheld | | MMALIC, Net of Funds Withheld Reinsurance |
| Corporate Bonds | ASSET MIX | | | |
| US Gov*t, Agencies, Municipals, Foreign Gov*t 1,620 89 1,53 1,538 1,535 1,331 1,599 9,7,77 1,535 1,331 1,599 9,7,77 1,535 1,331 1,599 9,7,77 1,535 1,335 1,333 1,599 9,7,77 1,535 1,33 | Non-Affiliated | | | |
| RMBS 2,914 1,332 1,586 CMBS 1,559 857 700 Other ABS (including CLOs) 11,313 1,599 9,717 Mortgage Loans and Real Estate 4,690 635 4,055 Schedule BA Assets 1,255 208 1,04 Unoffiliated 11,799 7,779 34,226 Affiliated Corporate Bonds 147 71 7 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 CMBS 0 0 0 0 CMBS 0 0 0 0 CMBS 0 0 0 0 Other ABS (including CLOs) 167 95 77 Mortgage Loans and Real Estate 0 0 0 0 Schedule BA Assets 292 180 111 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 722 Other <td< td=""><td>Corporate Bonds</td><td>18,061</td><td>3,036</td><td>15,025</td></td<> | Corporate Bonds | 18,061 | 3,036 | 15,025 |
| CMBS 1,559 857 700 Other ABS (including CLOs) 11,313 1,599 9,710 Mortgage Loans and Real Estate 4,690 635 4,055 Schedule BA Assets 1,255 208 1,041 Unaffiliated Stocks 587 23 56- Total Non-Affiliated 41,999 7,779 34,227 Affiliated 20 0 0 0 Corporate Bonds 147 71 76 0 0 0 Sobyt, Agencies, Municipals, Foreign Gov't 0 < | US Gov't, Agencies, Municipals, Foreign Gov't | 1,620 | 89 | 1,531 |
| Other ABS (including CLOs) 11,313 1,599 9,71-1 Mortgage Loans and Real Estate 4,690 635 4,055 Schedule BA Assets 12,255 208 1,045 Unaffiliated Stocks 587 23 56-6 Total Non-Affiliated 41,999 7,779 34,220 Affiliated Corporate Bonds 147 71 77 US Gov't, Agencies, Municipals, Foreign Gov't 0 0 0 CMBS 0 0 0 0 CMBS 0 0 0 0 CMBS (including CLOs) 167 95 77 Mortgage Loans and Real Estate 0 0 0 0 Schedule BA Assets 292 180 111 34 388 2,75 Affiliated 1,072 346 72 72 72 72 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,75 Derivatives 844 0 | RMBS | · · | 1,332 | 1,582 |
| Mortgage Loans and Real Estate 4,690 635 4,050 Schedule BA Assets 1,255 208 1,04 Undfilliated Stocks 587 23 56 Total Non-Affiliated 41,999 7,779 34,220 Affiliated Corporate Bonds 147 71 7 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 RMBS 0 0 0 0 CMBS 0 0 0 0 CMBS 0 0 0 0 Other ABS (including CLOs) 167 95 7 Mortgage Loans and Real Estate 0 0 0 0 Schedule BA Assets 292 180 111 Affiliated Stocks 466 0 46 Total Affiliated 1,072 346 72 Other 233 1343 388 2,75 Derivatives 844 0 84 All Other <td>CMBS</td> <td></td> <td>857</td> <td>702</td> | CMBS | | 857 | 702 |
| Schedule BA Assets 1,255 208 1,04 Undriflicated Stocks 387 23 56 Total Non-Affliated 41,999 7,779 34,220 Afflicated Afflicated Corporate Bonds 147 71 77 US Gov't, Agencies, Municipals, Foreign Gov't 0 0 0 CMBS 0 0 0 0 CMBS 0 0 0 0 Other ABS (including CLOs) 167 95 72 Mortgage Loans and Real Estate 0 0 0 0 Schedule BA Assets 292 180 117 46 72 Afflilated Stocks 466 0 46 72 46 72 Other 3,143 388 2,75 2,72 46 72 46 72 46 72 46 72 48 41 0 84 41 0 84 41 0 | Other ABS (including CLOs) | 11,313 | 1,599 | 9,714 |
| Unaffiliated Stocks 587 23 56- Total Non-Affiliated 41,999 7,779 34,220 Affiliated Corporate Bonds 147 71 77 05- 70 00 | Mortgage Loans and Real Estate | 4,690 | 635 | 4,055 |
| Total Non-Affiliated 41,999 7,779 34,226 Affiliated Corporate Bonds 147 71 76 US Gov1, Agencies, Municipals, Foreign Gov1 0 0 0 0 RMBS 0 0 0 0 0 CMBS 0 | Schedule BA Assets | 1,255 | 208 | 1,047 |
| Affiliated Corporate Bonds 147 71 7.5 US Gov't, Agencies, Municipals, Foreign Gov't 0 0 0 RMBS 0 0 0 CMBS 0 0 0 Other ABS (including CLOs) 167 95 7.7 Mortgage Loans and Real Estate 0 0 0 Schedule BA Assets 292 180 11.1 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 72c Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 84 All Other 131 0 13 Total Cother 131 0 13 Total Cash and Invested Assets 47,189 8,513 38,674 CREDIT QUALITY NAIC 2 12,884 2,387 10,492 Investment Grade 33,755 6,526 | Unaffiliated Stocks | 587 | 23 | 564 |
| Corporate Bonds | Total Non-Affiliated | 41,999 | 7,779 | 34,220 |
| US Gov't, Agencies, Municipals, Foreign Gov't 0 0 0 RMBS 0 0 0 CMBS 0 0 0 Other ABS (including CLOs) 167 95 77 Mortgage Loans and Real Estate 0 0 0 0 Schedule BA Assets 292 180 117 Affiliated Stocks 466 0 466 724 724 Other 1,072 346 724 | Affiliated | | | |
| RMBS 0 0 0 CMBS 0 0 0 Other ABS (including CLOs) 167 95 75 Mortgage Loans and Real Estate 0 0 0 Schedule BA Assets 292 180 112 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 72 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 84 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,674 CREDIT QUALITY NAIC 1 20,871 4,139 16,735 NAIC 2 12,884 2,387 10,499 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 399 NAIC 5 236 115 <t< td=""><td>Corporate Bonds</td><td>147</td><td>71</td><td>76</td></t<> | Corporate Bonds | 147 | 71 | 76 |
| CMBS 0 0 0 Other ABS (including CLOs) 167 95 77 Mortgage Loans and Real Estate 0 0 0 Schedule BA Assets 292 180 117 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 726 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 84 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,670 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,493 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 39 NAIC 5 236 15 | US Gov't, Agencies, Municipals, Foreign Gov't | 0 | 0 | 0 |
| Other ABS (including CLOs) 167 95 77 Mortgage Loans and Real Estate 0 0 0 Schedule BA Assets 292 180 117 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 72 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 84 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,670 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,495 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 39 NAIC 5 236 15 22 NAIC 6 70 14 <td>RMBS</td> <td>0</td> <td>0</td> <td>0</td> | RMBS | 0 | 0 | 0 |
| Mortgage Loans and Real Estate 0 0 0 Schedule BA Assets 292 180 112 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 726 Cither 2 3,143 388 2,753 Derivatives 844 0 84 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,670 CREDIT QUALITY VIAIC 2 12,884 2,387 10,492 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 80 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 55 Below Investment Grade 2,026 553 1,475 | CMBS | 0 | 0 | 0 |
| Schedule BA Assets 292 180 117 Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 726 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,753 Derivatives 844 0 844 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,676 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,493 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 55 Below Investment Grade 2,026 553 1,475 | Other ABS (including CLOs) | 167 | 95 | 72 |
| Affiliated Stocks 466 0 466 Total Affiliated 1,072 346 726 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,753 Derivatives 844 0 844 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,674 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,497 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 55 Below Investment Grade 2,026 553 1,473 | Mortgage Loans and Real Estate | 0 | 0 | 0 |
| Total Affiliated 1,072 346 720 Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 84 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,670 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,493 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 55 Below Investment Grade 2,026 553 1,473 | Schedule BA Assets | 292 | 180 | 112 |
| Other Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 844 All Other 131 0 13 Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,674 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,497 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | Affiliated Stocks | 466 | 0 | 466 |
| Cash, Cash Equivalents, and Short-Term Investments 3,143 388 2,755 Derivatives 844 0 844 All Other 131 0 13 Total Other 4,118 388 3,730 CREDIT QUALITY NAIC 1 20,871 4,139 16,730 NAIC 2 12,884 2,387 10,497 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 394 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | Total Affiliated | 1,072 | 346 | 726 |
| Derivatives 844 0 844 All Other 131 0 13 Total Other 4,118 388 3,730 CREDIT QUALITY NAIC 1 20,871 4,139 16,733 NAIC 2 12,884 2,387 10,497 Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 222 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | Other | | | |
| Total Other | Cash, Cash Equivalents, and Short-Term Investments | 3,143 | 388 | 2,755 |
| Total Other 4,118 388 3,730 Total Cash and Invested Assets 47,189 8,513 38,670 CREDIT QUALITY VAIC 1 20,871 4,139 16,730 NAIC 2 12,884 2,387 10,490 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | Derivatives | 844 | 0 | 844 |
| Total Cash and Invested Assets 47,189 8,513 38,676 CREDIT QUALITY NAIC 1 20,871 4,139 16,732 NAIC 2 12,884 2,387 10,492 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | All Other | 131 | 0 | 131 |
| CREDIT QUALITY NAIC 1 20,871 4,139 16,732 NAIC 2 12,884 2,387 10,492 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | Total Other | 4,118 | 388 | 3,730 |
| NAIC 1 20,871 4,139 16,732 NAIC 2 12,884 2,387 10,497 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | Total Cash and Invested Assets | 47,189 | 8,513 | 38,676 |
| NAIC 1 20,871 4,139 16,732 NAIC 2 12,884 2,387 10,497 Investment Grade 33,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | CREDIT QUALITY | | | |
| NAIC 2 Investment Grade 12,884 2,387 10,497 NAIC 3 3,755 6,526 27,229 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | | 20.871 | A 130 | 14 730 |
| Investment Grade 33,755 6,526 27,225 NAIC 3 1,245 445 800 NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | | | | |
| NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | | | | 27,229 |
| NAIC 4 475 79 396 NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | NAIC 3 | 1 2/15 | 115 | 800 |
| NAIC 5 236 15 22 NAIC 6 70 14 56 Below Investment Grade 2,026 553 1,473 | | | | |
| NAIC 6 70 14 50 Below Investment Grade 2,026 553 1,473 | | | | |
| Below Investment Grade 2,026 553 1,473 | | | | |
| | | | | |
| | Total Bonds | 35,781 | 7,079 | 28,702 |