



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION - SEPARATE ACCOUNTS

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2012
OF THE CONDITION AND AFFAIRS OF THE SEPARATE ACCOUNTS OF THE

Massachusetts Mutual Life Insurance Company

NAIC Group Code 0435 0435 NAIC Company Code 65935 Employer's ID Number 04-1590850
(Current) (Prior)

Organized under the Laws of Massachusetts, State of Domicile or Port of Entry Massachusetts

Country of Domicile United States of America

Type of Separate Accounts Insulated [X] Non-Insulated []

Incorporated/Organized 05/15/1851 Commenced Business 08/01/1851

Statutory Home Office 1295 State Street, Springfield, MA, US 01111
(Street and Number) (City or Town, State, Country and Zip Code)

Main Administrative Office 1295 State Street, Springfield, MA, US 01111
(Street and Number) (City or Town, State, Country and Zip Code)
413-788-8411
(Area Code) (Telephone Number)

Mail Address 1295 State Street, Springfield, MA, US 01111
(Street and Number or P.O. Box) (City or Town, State, Country and Zip Code)

Primary Location of Books and Records 1295 State Street, Springfield, MA, US 01111
(Street and Number) (City or Town, State, Country and Zip Code)
413-788-8411
(Area Code) (Telephone Number)

Internet Website Address www.massmutual.com

Statutory Statement Contact Tammy A. Peatman, 413-744-6327
(Name) (Area Code) (Telephone Number)
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(E-mail Address) (FAX Number)

OFFICERS

President and Chief Executive Officer Roger William Crandall Treasurer Todd Garrett Picken
Secretary Christine Carole Peaslee Actuary Isadore Jermyn

OTHER

Michael Thomas Rollings Executive Vice President and Chief Financial Officer
Robert Joseph Casale Executive Vice President and Chief Information Officer
Elaine Anne Sarsynski Executive Vice President
Michael Robert Fanning Executive Vice President
Debra Ann Palermino Executive Vice President
Elizabeth Ward Chicares Executive Vice President and Chief Risk Officer
Melvin Timothy Corbett Executive Vice President and Chief Investment Officer
Mark Douglas Roellig Executive Vice President and General Counsel

DIRECTORS OR TRUSTEES

Roger William Crandall - Chairman
Kathleen Ann Corbet
Robert Alan Essner - Lead Director
Cathy Elizabeth Minehan
William Taylor Spitz
Thomas Corcoran Barry
James Henry DeGraffenreid Jr
Robert Michael Furek
Marc Francis Racicot
Howard Todd Stitzer
Cristóbal Ignacio Conde
Patricia Diaz Dennis
Raymond Walter LeBoeuf
Laura Jeanne Sen #

State of Massachusetts SS:
County of Hampden

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.

Roger William Crandall
President and Chief Executive Officer

Christine Carole Peaslee
Secretary

Todd Garrett Picken
Treasurer

Subscribed and sworn to before me this _____ day of _____

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

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

ASSETS

| | Current Year | | | Prior Year |
|---|-------------------------------|--------------------------|-----------------------------|----------------|
| | 1 General Account Basis | 2 Fair Value Basis | 3 Total (Cols. 1 + 2) | 4 Total |
| 1. Bonds (Schedule D)..... | | 12,003,129,048 | 12,003,129,048 | 6,147,041,452 |
| 2. Stocks (Schedule D): | | | | |
| 2.1 Preferred stocks | | 3,062,500 | 3,062,500 | 2,637,500 |
| 2.2 Common stocks | | 35,978,349,737 | 35,978,349,737 | 32,416,277,403 |
| 3. Mortgage loans on real estate (Schedule B)..... | | 4,066,529 | 4,066,529 | 4,545,735 |
| 4. Real estate (Schedule A): | | | | |
| 4.1 Properties held for the production of income (less \$330,054,938 encumbrances) | | 100,166,740 | 100,166,740 | 128,670,891 |
| 4.2 Properties held for sale (less \$ encumbrances) | | | | |
| 5. Contract loans | | | | |
| 6. Cash (\$17,494,342 Schedule E - Part 1), and cash equivalents (\$2,427,808,033 , Schedule E - Part 2) | | 2,445,302,375 | 2,445,302,375 | 1,740,611,817 |
| 7. Short-term investments (Schedule DA) | | 630,945,404 | 630,945,404 | 254,001,771 |
| 8. Derivatives (Schedule DB) | | 8,472,343 | 8,472,343 | 161,499,865 |
| 9. Other invested assets (Schedule BA) | | 386,036,623 | 386,036,623 | 350,778,780 |
| 10. Securities lending reinvested collateral assets (Schedule DL) | | | | |
| 11. Aggregate write-ins for invested assets | | | | |
| 12. Subtotals, cash and invested assets (Lines 1 to 11) | | 51,559,531,299 | 51,559,531,299 | 41,206,065,214 |
| 13. Investment income due and accrued | | 89,330,415 | 89,330,415 | 55,225,872 |
| 14. Receivables for securities | | 678,649,449 | 678,649,449 | 259,497,306 |
| 15. Net adjustment in assets and liabilities due to foreign exchange rates | | 28,966 | 28,966 | (42,230) |
| 16. Aggregate write-ins for other than invested assets..... | | 12,666,128 | 12,666,128 | 11,582,324 |
| 17. Total (Lines 12 to 16) | | 52,340,206,257 | 52,340,206,257 | 41,532,328,486 |
| DETAILS OF WRITE-INS | | | | |
| 1101. | | | | |
| 1102. | | | | |
| 1103. | | | | |
| 1198. Summary of remaining write-ins for Line 11 from overflow page | | | | |
| 1199. Totals (Lines 1101 thru 1103 plus 1198)(Line 11 above) | | | | |
| 1601. Real estate notes receivable | | 9,721,236 | 9,721,236 | 8,016,701 |
| 1602. Receivable from hotel operations | | 1,762,640 | 1,762,640 | 1,608,901 |
| 1603. Prepaid miscellaneous expense | | 1,175,874 | 1,175,874 | 1,007,390 |
| 1698. Summary of remaining write-ins for Line 16 from overflow page | | 6,378 | 6,378 | 949,332 |
| 1699. Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above) | | 12,666,128 | 12,666,128 | 11,582,324 |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

LIABILITIES AND SURPLUS

| | Current Year | | | Prior Year |
|---|-------------------------------|--------------------------|-----------------------------|----------------|
| | 1 General Account Basis | 2 Fair Value Basis | 3 Total (Cols. 1 + 2) | 4 Total |
| 1. Aggregate reserve for life, annuity and accident and health contracts (Exhibit 3, Line 9999999, Col. 2) | | 50,941,560,884 | 50,941,560,884 | 40,599,566,215 |
| 2. Liability for deposit-type contracts (Exhibit 4, Line 9, Col. 1) | | 250,398,984 | 250,398,984 | 250,560,622 |
| 3. Interest Maintenance Reserve | | | | |
| 4. Charges for investment management, administration and contract guarantees due or accrued | | 38,149,422 | 38,149,422 | 26,230,252 |
| 5. Investment expenses due or accrued (Exhibit 1, Line 24) | | 3,830,681 | 3,830,681 | 3,076,909 |
| 6. Investment taxes, licenses and fees due or accrued, excluding federal income taxes (Exhibit 2, Line 8) | | 551,934 | 551,934 | 970,886 |
| 7. Federal and foreign income taxes due or accrued (excluding deferred taxes) | | | | |
| 8. Reserve for future federal income taxes | | | | |
| 9. Unearned investment income | | 1,170,904 | 1,170,904 | 1,286,560 |
| 10. Other transfers to general account due or accrued (net) (including \$247,489,487 accrued expense allowances recognized in reserves) | | 246,580,163 | 246,580,163 | 262,405,061 |
| 11. Remittances and items not allocated | | 164,744,601 | 164,744,601 | 102,669,003 |
| 12. Derivatives | | 5,883,772 | 5,883,772 | 8,136,066 |
| 13. Payable for securities | | 679,358,367 | 679,358,367 | 269,906,684 |
| 14. Payable for securities lending | | | | |
| 15. Net adjustment in assets and liabilities due to foreign exchange rates | | | | |
| 16. Aggregate write-ins for liabilities | | (844,861) | (844,861) | (135,676) |
| 17. Total liabilities (including \$284,729,585 due or accrued net transfers to or (from) the general account) | | 52,331,384,851 | 52,331,384,851 | 41,524,672,582 |
| 18. Contributed surplus | | 3,275 | 3,275 | (4,617,913) |
| 19. Aggregate write-ins for special surplus funds | | | | |
| 20. Unassigned funds | | 8,818,131 | 8,818,131 | 12,273,817 |
| 21. Surplus (Lines 18 through 20) | | 8,821,406 | 8,821,406 | 7,655,904 |
| 22. Totals | | 52,340,206,257 | 52,340,206,257 | 41,532,328,486 |
| DETAILS OF WRITE-INS | | | | |
| 1601. Annuitant mortality fluctuation fund | | 247,182 | 247,182 | 225,296 |
| 1602. Derivatives accrued interest on swaps | | (1,092,043) | (1,092,043) | (360,972) |
| 1603. | | | | |
| 1698. Summary of remaining write-ins for Line 16 from overflow page | | | | |
| 1699. Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above) | | (844,861) | (844,861) | (135,676) |
| 1901. | | | | |
| 1902. | | | | |
| 1903. | | | | |
| 1998. Summary of remaining write-ins for Line 19 from overflow page | | | | |
| 1999. Totals (Lines 1901 thru 1903 plus 1998)(Line 19 above) | | | | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

SUMMARY OF OPERATIONS

| | 1 Current Year | 2 Prior Year |
|--|-------------------|-----------------|
| 1. Transfers to Separate Accounts: | | |
| 1.1 Net premiums and annuity considerations for life and accident and health contracts | 11,750,398,794 | 6,427,522,629 |
| 1.2 Considerations for supplementary contracts with life contingencies | | |
| 1.3 Aggregate write-ins for other transfers to Separate Accounts | | |
| 1.4 Totals (Lines 1.1 to 1.3) | 11,750,398,794 | 6,427,522,629 |
| 2. Transfers on account of deposit-type contracts (including \$ deposits less \$ 1,779,730 withdrawals) | (1,779,730) | (379,457,638) |
| 3. Net investment income and capital gains and losses | 5,004,002,478 | 213,092,571 |
| 4. Aggregate write-ins for other income | 795 | 18,683 |
| 5. Totals (Lines 1.4 to 4) | 16,752,622,337 | 6,261,176,245 |
| DEDUCT: | | |
| 6. Transfers from the Separate Account on account of contract benefits: | | |
| 6.1 Death benefits | 7,507,801 | 4,984,438 |
| 6.2 Matured endowments | | |
| 6.3 Annuity benefits | 113,516,092 | 111,959,066 |
| 6.4 Payments on supplementary contracts with life contingencies | | |
| 6.5 Accident and health benefits | | |
| 6.6 Surrender benefits and withdrawals for life contracts | 5,624,016,923 | 4,860,341,312 |
| 6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits | | |
| 7. Transfers on account of policy loans | 10,986,263 | 13,861,504 |
| 8. Net transfer of reserves from or (to) Separate Accounts | 356,486,953 | 525,993,141 |
| 9. Other transfers from the Separate Accounts: | | |
| 9.1 Federal and foreign income taxes incurred | | |
| 9.2 Change in expense allowances recognized in reserves | (15,362,597) | (51,037,738) |
| 9.3 Aggregate write-ins for other transfers from Separate Accounts | 7,319 | |
| 10. Subtotals (Lines 6.1 to 9.3) | 6,097,158,754 | 5,466,101,723 |
| 11. Fees associated with charges for investment management, administration and contract guarantees | 313,583,083 | 296,741,000 |
| 12. Increase in aggregate reserve for life and accident and health contracts | 10,341,994,669 | 865,735,537 |
| 13. Increase in liability for deposit-type contracts | (161,639) | (377,207,358) |
| 14. Increase in reserve for future federal income taxes | | |
| 15. Aggregate write-ins for reserves and funds | 21,886 | 9,536,932 |
| 16. Totals (Lines 10 to 15) | 16,752,596,753 | 6,260,907,834 |
| 17. Net gain from operations (including \$ 1 unrealized capital gains) (Line 5 minus Line 16) | 25,584 | 268,411 |
| SURPLUS ACCOUNT | | |
| 18. Surplus, December 31, prior year | 7,655,904 | 12,681,374 |
| 19. Net gain from operations (Line 17) | 25,584 | 268,411 |
| 20. Surplus contributed or (withdrawn) during year | 3,275 | (4,697,522) |
| 21. Change in reserve on account of change in valuation basis, (increase) or decrease | | |
| 22. Transfer from Separate Accounts of the change in expense allowances recognized in Line 21 | | |
| 23. Aggregate write-ins for gains and losses in surplus | 1,136,643 | (596,359) |
| 24. Surplus, December 31, current year (Page 3, Line 21) | 8,821,406 | 7,655,904 |
| DETAILS OF WRITE-INS | | |
| 01.301. | | |
| 01.302. | | |
| 01.303. | | |
| 01.398. Summary of remaining write-ins for Line 1.3 from overflow page | | |
| 01.399. Totals (Lines 01.301 thru 01.303 plus 01.398)(Line 1.3 above) | | |
| 0401. Miscellaneous gain | 795 | 18,683 |
| 0402. | | |
| 0403. | | |
| 0498. Summary of remaining write-ins for Line 4 from overflow page | | |
| 0499. Totals (Lines 0401 thru 0403 plus 0498)(Line 4 above) | 795 | 18,683 |
| 06.701. | | |
| 06.702. | | |
| 06.703. | | |
| 06.798. Summary of remaining write-ins for Line 6.7 from overflow page | | |
| 06.799. Totals (Lines 06.701 thru 06.703 plus 06.798)(Line 6.7 above) | | |
| 09.301. Miscellaneous loss | 7,319 | |
| 09.302. | | |
| 09.303. | | |
| 09.398. Summary of remaining write-ins for Line 9.3 from overflow page | | |
| 09.399. Totals (Lines 09.301 thru 09.303 plus 09.398)(Line 9.3 above) | 7,319 | |
| 1501. Change in annuitant mortality fluctuation fund | 21,886 | (6,183) |
| 1502. Change in unrealized derivative loss/(gain) on book value account | | 9,543,115 |
| 1503. | | |
| 1598. Summary of remaining write-ins for Line 15 from overflow page | | |
| 1599. Totals (Lines 1501 thru 1503 plus 1598)(Line 15 above) | 21,886 | 9,536,932 |
| 2301. Capital preservation supplemental reserve | 1,136,643 | (596,359) |
| 2302. | | |
| 2303. | | |
| 2398. Summary of remaining write-ins for Line 23 from overflow page | | |
| 2399. Totals (Lines 2301 thru 2303 plus 2398)(Line 23 above) | 1,136,643 | (596,359) |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

ANALYSIS OF OPERATIONS BY LINES OF BUSINESS

| | 1 Total | Ordinary | | | Group | | Accident and Health | | 9 Aggregate of All Other Lines of Business |
|---|----------------|---------------------|---------------------------|------------------------------|---------------------|----------------|---------------------|------------|--|
| | | 2 Life Insurance | 3 Individual Annuities | 4 Supplementary Contracts | 5 Life Insurance | 6 Annuities | 7 Group | 8 Other | |
| 1. Transfers to Separate Accounts: | | | | | | | | | |
| 1.1 Net premiums and annuity considerations for life and accident and health contracts | 11,750,398,794 | 87,023,640 | 602,953,654 | | 4,304,376 | 11,056,117,124 | | | |
| 1.2 Considerations for supplementary contracts with life contingencies | | | | | | | | | |
| 1.3 Aggregate write-ins for other transfers to Separate Accounts | | | | | | | | | |
| 1.4 Totals (Lines 1.1 to 1.3) | 11,750,398,794 | 87,023,640 | 602,953,654 | | 4,304,376 | 11,056,117,124 | | | |
| 2. Transfers on account of deposit-type contracts (including \$ deposits less \$ 1,779,730 withdrawals) | (1,779,730) | | (177,230) | | | (1,602,500) | | | |
| 3. Net investment income and capital gains and losses | 5,004,002,478 | 101,417,725 | 1,190,894,207 | | 58,414,091 | 3,653,276,455 | | | |
| 4. Aggregate write-ins for other income | 795 | | | | 795 | | | | |
| 5. Totals (Lines 1.4 to 4) | 16,752,622,337 | 188,441,365 | 1,793,670,631 | | 62,719,262 | 14,707,791,079 | | | |
| DEDUCT: | | | | | | | | | |
| 6. Transfers from the Separate Account on account of contract benefits: | | | | | | | | | |
| 6.1 Death benefits | 7,507,801 | 2,685,356 | | | 4,822,445 | | | | |
| 6.2 Matured endowments | | | | | | | | | |
| 6.3 Annuity benefits | 113,516,092 | | 113,499,527 | | | 16,565 | | | |
| 6.4 Payments on supplementary contracts with life contingencies | | | | | | | | | |
| 6.5 Accident and health benefits | | | | | | | | | |
| 6.6 Surrender benefits and withdrawals for life contracts | 5,624,016,923 | 55,104,058 | 628,634,912 | | 357,740,320 | 4,582,537,633 | | | |
| 6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits | | | | | | | | | |
| 7. Transfers on account of policy loans | 10,986,263 | 10,129,281 | 67,553 | | 789,429 | | | | |
| 8. Net transfer of reserves from or (to) Separate Accounts | 356,486,953 | 278,979 | 11,088,337 | | 27,434 | 345,092,203 | | | |
| 9. Other transfers from the Separate Accounts: | | | | | | | | | |
| 9.1 Federal and foreign income taxes incurred | | | | | | | | | |
| 9.2 Change in expense allowances recognized in reserves | (15,362,597) | (2,989,018) | (12,373,579) | | | | | | |
| 9.3 Aggregate write-ins for other transfers from Separate Accounts | 7,319 | 4,893 | 2,426 | | | | | | |
| 10. Subtotals (Lines 6.1 to 9.3) | 6,097,158,754 | 65,213,549 | 740,919,176 | | 363,379,628 | 4,927,646,401 | | | |
| 11. Fees associated with charges for investment management, administration and contract guarantees | 313,583,083 | 47,265,622 | 164,251,391 | | 39,121,611 | 62,944,459 | | | |
| 12. Increase in aggregate reserve for life and accident and health contracts | 10,341,994,669 | 75,962,578 | 888,600,754 | | (339,781,977) | 9,717,213,314 | | | |
| 13. Increase in liability for deposit-type contracts | (161,639) | | (122,576) | | | (39,063) | | | |
| 14. Increase in reserve for future federal income taxes | | | | | | | | | |
| 15. Aggregate write-ins for reserves and funds | 21,886 | | 21,886 | | | | | | |
| 16. Totals (Lines 10 to 15) | 16,752,596,753 | 188,441,749 | 1,793,670,631 | | 62,719,262 | 14,707,765,111 | | | |
| 17. Net gain from operations (including \$ 1 unrealized capital gains) (Line 5 minus Line 16) | 25,584 | (384) | | | | 25,968 | | | |
| DETAILS OF WRITE-INS | | | | | | | | | |
| 01.301. | | | | | | | | | |
| 01.302. | | | | | | | | | |
| 01.303. | | | | | | | | | |
| 01.398. Summary of remaining write-ins for Line 1.3 from overflow page | | | | | | | | | |
| 01.399. Totals (Lines 01.301 thru 01.303 plus 01.398) (Line 1.3 above) | | | | | | | | | |
| 0401. Miscellaneous gain | 795 | | | | 795 | | | | |
| 0402. | | | | | | | | | |
| 0403. | | | | | | | | | |
| 0498. Summary of remaining write-ins for Line 4 from overflow page | | | | | | | | | |
| 0499. Totals (Lines 0401 thru 0403 plus 0498) (Line 4 above) | 795 | | | | 795 | | | | |
| 06.701. | | | | | | | | | |
| 06.702. | | | | | | | | | |
| 06.703. | | | | | | | | | |
| 06.798. Summary of remaining write-ins for Line 6.7 from overflow page | | | | | | | | | |
| 06.799. Totals (Lines 06.701 thru 06.703 plus 06.798) (Line 6.7 above) | | | | | | | | | |
| 09.301. Miscellaneous loss | 7,319 | 4,893 | 2,426 | | | | | | |
| 09.302. | | | | | | | | | |
| 09.303. | | | | | | | | | |
| 09.398. Summary of remaining write-ins for Line 9.3 from overflow page | | | | | | | | | |
| 09.399. Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above) | 7,319 | 4,893 | 2,426 | | | | | | |
| 1501. Change in annuitant mortality fluctuation fund | 21,886 | | 21,886 | | | | | | |
| 1502. | | | | | | | | | |
| 1503. | | | | | | | | | |
| 1598. Summary of remaining write-ins for Line 15 from overflow page | | | | | | | | | |
| 1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above) | 21,886 | | 21,886 | | | | | | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR

| | 1 Total | Ordinary | | | Group | |
|--|----------------|---------------------|---------------------------|------------------------------|---------------------|----------------|
| | | 2 Life Insurance | 3 Individual Annuities | 4 Supplementary Contracts | 5 Life Insurance | 6 Annuities |
| 1. Reserve Dec. 31 of prior year | 40,599,566,215 | 797,353,763 | 8,513,504,815 | | 2,045,133,130 | 29,243,574,507 |
| 2. Tabular net premiums and considerations for annuities and supplementary contracts with life contingencies | 11,750,398,794 | 87,023,640 | 602,953,654 | | 4,304,376 | 11,056,117,124 |
| 3. Increase or (decrease) from investment results after provision for federal income taxes | 5,002,358,801 | 101,418,110 | 1,190,839,552 | | 58,414,091 | 3,651,687,048 |
| 4. Tabular less actual reserve released | | | | | | |
| 5. Increase in reserve on account of change in valuation basis | | | | | | |
| 6. Other increases (net) | (6,522) | (4,894) | (2,423) | | 795 | |
| 7. Totals (Lines 1 to 6) | 57,352,317,288 | 985,790,619 | 10,307,295,598 | | 2,107,852,392 | 43,951,378,679 |
| 8. Net transfer of reserves from or (to) Separate Accounts | 356,486,953 | 278,979 | 11,088,337 | | 27,434 | 345,092,203 |
| 9. Tabular cost | | | | | | |
| 10. Reserves released by death | 7,507,801 | 2,685,356 | | | 4,822,445 | |
| 11. Reserves released by other terminations (net) | 5,624,016,923 | 55,104,058 | 628,634,912 | | 357,740,320 | 4,582,537,633 |
| 12. Transfers on account of annuity and supplementary contract payments involving life contingencies | 113,516,092 | | 113,499,527 | | | 16,565 |
| 13. Charges for investment management, administration and contract guarantees | 313,583,083 | 47,265,622 | 164,251,391 | | 39,121,611 | 62,944,459 |
| 14. Aggregate write-ins for other decreases in reserves | (4,354,448) | 7,140,263 | (12,284,140) | | 789,429 | |
| 15. Total deductions (Lines 8 to 14) | 6,410,756,404 | 112,474,278 | 905,190,027 | | 402,501,239 | 4,990,590,860 |
| 16. Reserve December 31 of current year | 50,941,560,884 | 873,316,341 | 9,402,105,571 | | 1,705,351,153 | 38,960,787,819 |
| DETAILS OF WRITE-INS | | | | | | |
| 1401. Change in surrender charge offset | (15,362,597) | (2,989,018) | (12,373,579) | | | |
| 1402. Change in mortality fluctuation fund | 21,886 | | 21,886 | | | |
| 1403. Change in policy loans | 10,986,263 | 10,129,281 | 67,553 | | 789,429 | |
| 1498. Summary of remaining write-ins for Line 14 from overflow page | | | | | | |
| 1499. Totals (Lines 1401 thru 1403 plus 1498) (Line 14 above) | (4,354,448) | 7,140,263 | (12,284,140) | | 789,429 | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

EXHIBIT OF NET INVESTMENT INCOME

| | 1 Collected During Year | 2 Earned During Year |
|---|----------------------------|-------------------------|
| 1. U.S. Government bonds | (a) 40,440,606 | 45,681,947 |
| 1.1 Bonds exempt from U.S. tax | (a) | |
| 1.2 Other bonds (unaffiliated) | (a) 223,667,347 | 253,519,188 |
| 1.3 Bonds of affiliates | (a) | |
| 2.1 Preferred stocks (unaffiliated) | (b) 187,500 | 187,500 |
| 2.11 Preferred stocks of affiliates | (b) | |
| 2.2 Common stocks (unaffiliated) | 1,191,981,997 | 1,192,267,042 |
| 2.21 Common stocks of affiliates | | |
| 3. Mortgage loans | (c) 251,581 | 249,404 |
| 4. Real estate | (d) 33,462,298 | 32,765,264 |
| 5. Contract loans | | |
| 6. Cash, cash equivalents and short-term investments | (e) 9,897,792 | 10,303,557 |
| 7. Derivative instruments | (f) (5,785,297) | (5,918,807) |
| 8. Other invested assets | 639,351 | 639,351 |
| 9. Aggregate write-ins for investment income | 8,831,850 | 8,829,531 |
| 10. Total gross investment income | 1,503,575,025 | 1,538,523,976 |
| 11. Investment expenses | | (g) 4,739,105 |
| 12. Investment taxes, licenses and fees, excluding federal income taxes | | (g) 6,490,247 |
| 13. Interest expense | | (h) |
| 14. Depreciation on real estate and other invested assets | | (i) |
| 15. Aggregate write-ins for deductions from investment income | | |
| 16. Total deductions (Lines 11 through 15) | | 11,229,352 |
| 17. Net investment income (Line 10 minus Line 16) | | 1,527,294,624 |
| DETAILS OF WRITE-INS | | |
| 0901. Miscellaneous income | 8,831,850 | 8,829,531 |
| 0902. | | |
| 0903. | | |
| 0998. Summary of remaining write-ins for Line 9 from overflow page | | |
| 0999. Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above) | 8,831,850 | 8,829,531 |
| 1501. | | |
| 1502. | | |
| 1503. | | |
| 1598. Summary of remaining write-ins for Line 15 from overflow page | | |
| 1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15, above) | | |

- (a) Includes \$ accrual of discount less \$ amortization of premium and less \$ 71,305,971 paid for accrued interest on purchases.
- (b) Includes \$ accrual of discount less \$ amortization of premium and less \$ paid for accrued dividends on purchases.
- (c) Includes \$ accrual of discount less \$ amortization of premium and less \$ paid for accrued interest on purchases.
- (d) Includes \$ for company's occupancy of its own buildings; and excludes \$ interest on encumbrances.
- (e) Includes \$ 51,310 accrual of discount less \$ 82,459 amortization of premium and less \$ 161,030 paid for accrued interest on purchases.
- (f) Includes \$ accrual of discount less \$ amortization of premium.
- (g) Includes \$ investment expenses and \$ investment taxes, licenses and fees, excluding federal income taxes, attributable to segregated and Separate Accounts.
- (h) Includes \$ interest on surplus notes and \$ interest on capital notes.
- (i) Includes \$ depreciation on real estate and \$ depreciation on other invested assets.

EXHIBIT OF CAPITAL GAINS (LOSSES)

| | 1 | 2 | 3 | 4 | 5 |
|--|--|-------------------------------|--|--|---|
| | Realized Gain (Loss) On Sales or Maturity | Other Realized Adjustments | Total Realized Capital Gain (Loss) (Columns 1 + 2) | Change in Unrealized Capital Gain (Loss) | Change in Unrealized Foreign Exchange Capital Gain (Loss) |
| 1. U.S. Government bonds | 44,790,238 | | 44,790,238 | (42,909,768) | |
| 1.1 Bonds exempt from U.S. tax | | | | | |
| 1.2 Other bonds (unaffiliated) | 49,823,683 | (170,463) | 49,653,220 | 151,036,372 | 284,188 |
| 1.3 Bonds of affiliates | | | | | |
| 2.1 Preferred stocks (unaffiliated) | | | | 425,000 | |
| 2.11 Preferred stocks of affiliates | | | | | |
| 2.2 Common stocks (unaffiliated) | 688,426,396 | 76,453 | 688,502,849 | 2,524,115,112 | (69,468) |
| 2.21 Common stocks of affiliates | | | | | |
| 3. Mortgage loans | (2,048) | | (2,048) | 56,972 | |
| 4. Real estate | (4,792,483) | | (4,792,483) | 16,626,388 | |
| 5. Contract loans | | | | | |
| 6. Cash, cash equivalents and short-term investments | (270,506) | | (270,506) | | |
| 7. Derivative instruments | 167,151,170 | | 167,151,170 | (138,494,920) | 181,578 |
| 8. Other invested assets | (13,815,723) | | (13,815,723) | 34,363,973 | |
| 9. Aggregate write-ins for capital gains (losses) | | (195,486) | (195,486) | | 71,196 |
| 10. Total capital gains (losses) | 931,310,727 | (289,496) | 931,021,231 | 2,545,219,129 | 467,494 |
| DETAILS OF WRITE-INS | | | | | |
| 0901. Capital gain(loss) on foreign currency | | (195,486) | (195,486) | | 71,196 |
| 0902. | | | | | |
| 0903. | | | | | |
| 0998. Summary of remaining write-ins for Line 9 from overflow page | | | | | |
| 0999. Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above) | | (195,486) | (195,486) | | 71,196 |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

EXHIBIT 1 - INVESTMENT EXPENSES

| | 1 Amount |
|---|-------------|
| 1. Rent | |
| 2. Salaries and wages | |
| 3. Contributions for benefit plans for employees (a) | |
| 4. Payments to employees under non-funded benefit plans | |
| 5. Other employee welfare | |
| 6. Legal fees and expenses | |
| 7. Fees of public accountants and consulting actuaries | |
| 8. Traveling expenses | |
| 9. Postage, express, telegraph and telephone | |
| 10. Printing and stationery | |
| 11. Cost or depreciation of furniture and equipment | |
| 12. Rental of equipment | |
| 13. Books and periodicals | |
| 14. Bureau and association fees | |
| 15. Insurance, except on real estate | |
| 16. Miscellaneous losses | |
| 17. Collection and bank service charges | 934,388 |
| 18. Sundry general expenses | |
| 19. Real estate expenses | 2,105,549 |
| 20. Investment expenses not included elsewhere | 1,699,168 |
| 21. Aggregate write-ins for other investment expenses | |
| 22. Investment expenses incurred | 4,739,105 |
| Reconciliation with Exhibit 5 | |
| 23. Investment expenses unpaid December 31, prior year | 3,076,909 |
| 24. Investment expenses unpaid December 31, current year | 3,830,681 |
| 25. Investment expenses paid during year (Lines 22 + 23 - 24) (to Exhibit 5, Line 12) | 3,985,333 |
| DETAILS OF WRITE-INS | |
| 2101. | |
| 2102. | |
| 2103. | |
| 2198. Summary of remaining write-ins for Line 21 from overflow page | |
| 2199. Totals (Lines 2101 thru 2103 plus 2198) (Line 21 above) | |

(a) Includes \$ on account of prior service.

**EXHIBIT 2 - INVESTMENT TAXES, LICENSES AND FEES
(EXCLUDING FEDERAL INCOME TAXES)**

| | 1 Amount |
|--|-------------|
| 1. Real estate taxes | 6,490,247 |
| 2. State insurance department fees | |
| 3. Other state taxes, including \$ for employee benefits | |
| 4. U.S. Social Security taxes | |
| 5. All other taxes | |
| 6. Taxes, licenses and fees incurred | 6,490,247 |
| Reconciliation with Exhibit 5 | |
| 7. Taxes, licenses and fees unpaid December 31, prior year | 970,886 |
| 8. Taxes, licenses and fees unpaid December 31, current year | 551,934 |
| 9. Taxes, licenses and fees paid during year (Lines 6 + 7 - 8) (to Exhibit 5, Line 13) | 6,909,199 |

EXHIBIT 3 - AGGREGATE RESERVE FOR LIFE, ANNUITY AND ACCIDENT AND HEALTH CONTRACTS

| 1 | 2 | 3 | 4 |
|--|----------------|----------------|----------------|
| Description of Valuation Basis | Total | Ordinary | Group |
| 0100001. 58 CSO 4.00% Mod CRVM | 2,017,780 | 2,017,780 | |
| 0100002. 80 CSO 5.50% CRVM | 25,691,061 | 25,691,061 | |
| 0100003. 80 CSO 5.00% CRVM | 219,334 | 219,334 | |
| 0100004. 80 CSO 4.50% CRVM | 523,810,941 | 523,810,941 | |
| 0100005. 80 CSO 4.00% CRVM | 77,080,497 | 77,080,497 | |
| 0100006. 2001 CSO 4.00% CRVM | 6,145,184 | 6,145,184 | |
| 0100007. 80 CSO Account Value | 1,909,855,149 | 206,387,175 | 1,703,467,974 |
| 0100008. 2001 CSO Account Value | 33,847,548 | 31,964,369 | 1,883,179 |
| 0199999. Totals | 2,578,667,494 | 873,316,341 | 1,705,351,153 |
| 0200001. Deferred Annuity 4.75% to 10.00% CARVM | 9,371,072,978 | 9,371,072,978 | |
| 0200002. Annuity Reserve | 37,412,313,939 | 31,032,593 | 37,381,281,346 |
| 0200003. Annuity Reserve 1951 to 1970 5.50% GA MBI | 49,571 | | 49,571 |
| 0200004. Group Home Office and Field Plans | 1,579,456,902 | | 1,579,456,902 |
| 0299999. Totals | 48,362,893,390 | 9,402,105,571 | 38,960,787,819 |
| 0300001. | | | |
| 0399999. Totals | | | |
| 0400001. | | | |
| 0499999. Totals | | | |
| 0500001. | | | |
| 0599999. Totals | | | |
| 9999999. Totals (to Page 3, Line 1) | 50,941,560,884 | 10,275,421,912 | 40,666,138,972 |

EXHIBIT 3 - INTERROGATORIES

- 1.1 Has the reporting entity ever issued both participating and non-participating variable life insurance contracts?..... Yes [X] No []
- 2.1 Does the reporting entity at present issue both participating and non-participating variable life insurance contracts?..... Yes [X] No []
- 2.2 If not, state which kind is issued
- 3.1 Is any surrender value promised in excess of the reserve as legally computed? Yes [] No [X] N/A []
- 3.2 If so, the amount of such excess must be included in surrender values in excess of reserves otherwise required and carried in this schedule. Has this been done? Yes [] No [] N/A [X]
 Attach a statement of methods employed in the valuation of variable life insurance contracts issued at, or subsequently subject to, an extra premium or in the valuation of contracts otherwise issued on lives classified as substandard for the plan of contract issued or on special class lives (including paid-up variable life insurance).

EXHIBIT 3A - CHANGES IN BASIS OF VALUATION DURING THE YEAR

(Including supplementary contracts set up on a basis other than that used to determine benefits)

| 1 | Valuation Basis | | 4 |
|---|-----------------|------------|---|
| Description of Valuation Class | 2 | 3 | Increase in Actuarial Reserve Due to Change |
| | Changed from | Changed To | |
| 9999999 - Totals (Page 6, Line 5, Analysis of Increase in Reserves) | NONE | | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

EXHIBIT 4 - DEPOSIT TYPE CONTRACTS

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|-------------|----------------------------------|-------------------|---------------------------|---|------------------------------------|
| | Total | Guaranteed Interest Contracts | Annuities Certain | Supplemental Contracts | Dividend Accumulations or Refunds | Premium and Other Deposit Funds |
| 1. Balance at the beginning of the year | 250,560,622 | 250,124,286 | | | | 436,336 |
| 2. Deposits received during the year | | | | | | |
| 3. Investment earnings credited to account | 1,618,868 | 1,563,437 | | | | 55,431 |
| 4. Other net change in reserves | | | | | | |
| 5. Fees and other charges assessed | 776 | | | | | 776 |
| 6. Surrender charges | | | | | | |
| 7. Net surrender or withdrawal payments | 1,779,730 | 1,602,500 | | | | 177,230 |
| 8. Other net transfer to or (from) general account | | | | | | |
| 9. Balance at the end of current year (Lines 1+2+3+4-5-6-7-8) | 250,398,984 | 250,085,223 | | | | 313,761 |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

EXHIBIT 5 - RECONCILIATION OF CASH AND INVESTED ASSETS

| DEVELOPMENT OF INCREASE IN CASH | | 1 Amount |
|---|--|----------------|
| 1. Transfers to Separate Accounts on account of: | | |
| 1.1 Net premiums and considerations for annuities and supplementary contracts with life contingencies | | 11,750,398,794 |
| 1.2 Aggregate write-ins for other transfers to Separate Accounts | | 1,136,642 |
| 2. Deposits on deposit-type contract funds and other liabilities without life or disability contingencies | | |
| 3. Investment income collected | | 1,503,575,025 |
| 4. Consideration on disposal of short-term bonds net of purchases | | (377,239,250) |
| 5. Consideration on disposal of investments (excluding short-term bonds) | | 23,978,143,275 |
| 6. Aggregate write-ins for other increases in funds from operations | | |
| 7. Total (Lines 1 to 6) | | 36,856,014,486 |
| 8. Cost of investments acquired (excluding short-term bonds) | | 29,787,828,141 |
| 9. Transfers from Separate Accounts on account of contract benefits: | | |
| 9.1 Death benefits | | 9,096,898 |
| 9.2 Matured endowments | | |
| 9.3 Annuity benefits | | 113,516,092 |
| 9.4 Supplementary contract benefits with life contingencies | | |
| 9.5 Accident and health benefits | | |
| 9.6 Surrender benefits and withdrawals for life contracts | | 5,624,016,923 |
| 9.7 Policy loans (net) | | 10,986,263 |
| 9.8 Transfers of reserves (net) | | 356,486,953 |
| 9.9 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits | | |
| 10. Other transfers from Separate Accounts: | | |
| 10.1 Federal income taxes | | |
| 10.2 Aggregate write-ins for other transfers from Separate Accounts | | (74,838,189) |
| 11. Withdrawals on deposit-type contract funds and other liabilities without life or disability contingencies | | 1,779,730 |
| 12. Investment expenses (Exhibit 1, Line 25) | | 3,985,333 |
| 12.1 Fees associated with investment management, administration and contract guarantees | | 301,663,913 |
| 13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9) | | 6,909,199 |
| 14. Total (Lines 8 to 13) | | 36,141,431,256 |
| 15. Funds from operations (Line 7 minus Line 14) | | 714,583,230 |
| 16. Surplus contributed or (withdrawn) during year | | 3,275 |
| 17. Aggregate write-ins for other changes in funds | | |
| 18. Total funds (includes \$ net transfers from general account) (Lines 15 to 17) | | 714,586,505 |
| 19. Increase in payable for investments acquired, net of receivable for investments sold | | (9,700,460) |
| 20. Decrease in policy loans | | |
| 21. Aggregate write-ins for other reconciling items | | (195,486) |
| 22. Increase in cash (Line 18 to 21) | | 704,690,559 |
| RECONCILIATION BETWEEN YEARS | | |
| 23. Cash and invested assets, December 31st of prior year | | 41,206,065,214 |
| 24. Increase in cash (Line 22) | | 704,690,559 |
| 25. Cost of invested assets acquired | | 32,270,611,832 |
| 26. Adjusted cost of assets disposed of | | 25,167,418,270 |
| 27. Increase in policy loans | | |
| 28. Accrual of discount less amortization of premium | | (31,149) |
| 29. Depreciation on real estate and other invested assets | | |
| 30. Increase in net unrealized gains | | 2,545,613,113 |
| 31. Aggregate write-ins for other reconciling items | | |
| 32. Cash and invested assets, December 31st of current year | | 51,559,531,299 |
| DETAILS OF WRITE-INS | | |
| 01.201. Capital preservation supplemental reserve | | 1,136,642 |
| 01.202. | | |
| 01.203. | | |
| 01.298. Summary of remaining write-ins for Line 1.2 from overflow page | | |
| 01.299. Totals (Lines 01.201 thru 01.203 plus 01.298) (Line 1.2 above) | | 1,136,642 |
| 0601. | | |
| 0602. | | |
| 0603. | | |
| 0698. Summary of remaining write-ins for Line 6 from overflow page | | |
| 0699. Totals (Lines 0601 thru 0603 plus 0698) (Line 6 above) | | |
| 09.901. | | |
| 09.902. | | |
| 09.903. | | |
| 09.998. Summary of remaining write-ins for Line 9.9 from overflow page | | |
| 09.999. Totals (Lines 09.901 thru 09.903 plus 09.998) (Line 9.9 above) | | |
| 10.201. Real estate notes receivable | | 1,704,536 |
| 10.202. Change in prepaid expenses | | 168,484 |
| 10.203. Receivable from hotel operations | | 153,739 |
| 10.298. Summary of remaining write-ins for Line 10.2 from overflow page | | (76,864,948) |
| 10.299. Totals (Lines 10.201 thru 10.203 plus 10.298) (Line 10.2 above) | | (74,838,189) |
| 1701. | | |
| 1702. | | |
| 1703. | | |
| 1798. Summary of remaining write-ins for Line 17 from overflow page | | |
| 1799. Totals (Lines 1701 thru 1703 plus 1798) (Line 17 above) | | |
| 2101. Foreign currency loss | | (195,486) |
| 2102. | | |
| 2103. | | |
| 2198. Summary of remaining write-ins for Line 21 from overflow page | | |
| 2199. Totals (Lines 2101 thru 2103 plus 2198) (Line 21 above) | | (195,486) |
| 3101. | | |
| 3102. | | |
| 3103. | | |
| 3198. Summary of remaining write-ins for Line 31 from overflow page | | |
| 3199. Totals (Lines 3101 thru 3103 plus 3198) (Line 31 above) | | |

EXHIBIT 6 - GUARANTEED INSURANCE AND ANNUITY PRODUCTS

| | 1 Amount | 2 Percent of Total |
|---|----------------|-----------------------|
| 1. Aggregate reserve for life, annuity and accident and health contracts (Included in Exhibit 3): | | |
| 1.1 Life insurance | | |
| 1.2 Annuities | | |
| 1.3 Supplementary contracts with life contingencies | | |
| 1.4 Accident and health | | |
| 1.5 Miscellaneous reserves | | |
| 1.6 Total | | |
| 2. Liability for deposit-type contracts (included in Exhibit 4): | | |
| 2.1 Guaranteed interest contracts | 250,085,223 | 0.5 |
| 2.2 Annuities certain | | |
| 2.3 Supplemental contracts | | |
| 2.4 Dividend accumulations or refunds | | |
| 2.5 Premium and other deposit funds | | |
| 2.6 Total | 250,085,223 | 0.5 |
| 3. Other liabilities (included in Page 3, Lines 4, 10, 13 & 14) | | |
| 4. Total liabilities associated with guarantees (Lines 1.6 + 2.6 + 3) | 250,085,223 | 0.5 |
| 5. Total liabilities not associated with guarantees | 52,081,299,628 | 99.5 |
| 6. Total Separate Accounts liabilities (Lines 4 + 5 = Page 3, Line 17) | 52,331,384,851 | 100.0 % |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

GENERAL INTERROGATORIES

Product Mix

1. Identify the product types in the separate account, quantify the assets associated with those products and indicate if there are any guarantees associated with those products:

| 1 Product Identifier | 2 Separate Account Assets | 3 Guarantees Associated with the Product Yes/No |
|--|------------------------------|--|
| Non-guaranteed Retirement Services SIAs | 26,437,256,504 | NO |
| Separate Account Guaranteed Interest Contract | 12,366,084,713 | YES |
| Individual Variable Annuity | 9,622,171,178 | YES |
| Stable Value Bank-owned Life Insurance | 1,824,683,347 | YES |
| Individual Variable Universal Life | 880,772,893 | YES |
| Capital Preservation | 486,660,117 | YES |
| Alpha-Backed Note Separate Account | 334,742,588 | YES |
| Corporate-owned Life Insurance | 157,371,282 | YES |
| Cornerstone Hotel Income Equity Fund | 145,578,814 | NO |
| Group Variable Universal Life | 52,351,842 | YES |
| Individual Immediate Variable Annuity | 22,226,390 | YES |
| Supplemental Account | 10,306,589 | NO |
| Included in the Separate Account Assets total are six contracts totaling \$24 million that are non-insulated, exclusive of seed money and unsettled fees and expenses. Total MassMutual separate account assets are \$52 billion at 12/31/12. These six non-insulated contracts represent 0.0005% of MassMutual's separate account balance at 12/31/12. Given the immateriality of the balances, we are disclosing the existence of these six non-insulated contracts, but are not preparing a separate green book blank. | | |
| Totals | 52,340,206,257 | XXX |

Separate Account Products with General Account Guarantees

- 2.1 Does the reporting entity have products with guarantees provided by the general account? Yes [X] No []
- 2.2 If yes, what is the current total maximum guarantee the general account would provide to the separate account?\$661,444,279
- 2.3 Has the separate account collected amounts from the general account within the past five years related to separate account guarantees? Yes [X] No []
- 2.4 If yes, provide detail on these guarantees paid by the general account:

| 1 Year | 2 Amount |
|-------------------------------------|---------------------|
| 2.401 As of December 31, 2012 | \$5,202,041 |
| 2.402 As of December 31, 2011 | \$103,553,395 |
| 2.403 As of December 31, 2010 | \$3,292,992 |
| 2.404 As of December 31, 2009 | \$ |
| 2.405 As of December 31, 2008 | \$ |

- 2.5 To compensate the general account for the risk taken, for any separate account products with general account guarantees, does the separate account remit risk charges to the general account related to separate account guarantees? Yes [X] No []
- 2.6 If yes, identify the separate account products with risk charges that are remitted to the general account and whether the risk charge for that product is reviewed and opined upon:

| 1 Product Identifier with Risk Charges | 2 Risk Charge Reviewed and Opined Upon | 3 Name and Title of Individual who Provided Opinion on Risk Charges |
|---|--|--|
| Capital Preservation | Yes | Isadore Jermyn, SVP and Chief Actuary |
| Separate Account Guaranteed Interest Contract | Yes | Isadore Jermyn, SVP and Chief Actuary |
| Individual Immediate Variable Annuity | No; the risk charges associated with this product are reviewed for reasonableness and accuracy by the appropriate actuary, but no formal opinion on these product risk charges is required by the NAIC. | |
| Individual Variable Annuity | No; the risk charges associated with this product are reviewed for reasonableness and accuracy by the appropriate actuary, but no formal opinion on these product risk charges is required by the NAIC. | |

- 2.7 Provide detail on the risk charges paid to the general account related to separate account guarantees for the past five years:

| 1 Year | 2 Amount |
|-------------------------------------|--------------------|
| 2.701 As of December 31, 2012 | \$59,634,146 |
| 2.702 As of December 31, 2011 | \$48,728,912 |
| 2.703 As of December 31, 2010 | \$41,990,792 |
| 2.704 As of December 31, 2009 | \$XXX |
| 2.705 As of December 31, 2008 | \$XXX |

Investment Directive of Separate Account Activity

- 3.1 Does the reporting entity have products classified within the separate account for which the investment directive is not determined by the contract holder? (Situations in which the investments directive mirrors the general account would not be considered determined by the contract holder; however, having the contract holder select an investment direction from multiple options would meet this criteria.) Yes [X] No []
- 3.2 If yes, if these investments would have been included in the general account, would the reporting entity have exceeded the investment limitations imposed on the general account? Yes [] No [X] N/A []

GENERAL INTERROGATORIES

3.3 Provide detail on the separate account investment portfolio and state investment limitations. (This includes the combined separate account and general investments, excluding separate account assets with investment direction determined by the contract holder):

| 1 | 2 | 3 |
|-----------------|-----------------------------|--|
| Investment Type | State Investment Limitation | Combined Investment (Separate and General Account) |
| | | |

Allocation of Investment Proceeds of Separate Account Activity

4.1 Does the reporting entity have separate account assets in which less than 100% of investment proceeds (net of contract fees and assessments) are attributed to a contract holder? (This should identify any situations where there is a ceiling on investment performance results.) Yes [X] No []

4.2 If yes, provide detail on the net investment proceeds that were attributed to the contract holder, transferred to the general account and reinvested within the separate account:

| 1 | 2 | 3 | 4 | 5 |
|---|-------------------------|-------------------------------|--------------------------------|--|
| Product Identifier | Net Investment Proceeds | Attributed to Contract Holder | Transferred to General Account | Reinvested Within the Separate Account |
| Non-guaranteed Retirement Services SIAs | 3,172,354,549 | 3,172,341,933 | 3,043 | 9,573 |
| Separate Account Guaranteed Interest Contract | 370,914,906 | 370,914,847 | 7 | 52 |
| Capital Preservation | 12,018,916 | 12,018,946 | | |
| Alpha-Backed Note Separate Account | 10,966,497 | 1,563,436 | | 9,403,061 |
| Supplemental Account | 330,707 | 317,413 | | 13,294 |

4.3 For items reinvested within the Separate Account, does the reporting entity invest these assets in accordance with investment directives of the general account? Yes [] No [X] N/A []

4.4 If no, does the reporting entity have a stated policy and procedure for the reinvestment of investment proceeds within the separate account? Yes [X] No [] N/A []

4.5 Did the reinvestment of investment proceeds within the separate account result with the company having a combined investment portfolio that exceeded the state investment limitations imposed on the general account? Yes [] No [X] N/A []

Measurement of Separate Account Assets

5.1 Does the reporting entity report all separate account assets at fair value? Yes [X] No []

5.2 For items not reported at fair value, does the reporting entity report separate account assets at amortized cost, and/or under different measurement methods?
 5.21 Amortized Cost Yes [] No [X]
 5.22 Other Measurement Methods..... Yes [] No [X]

5.3 If other measurement methods are used, provide explanation on these measurement methods.

5.4 Identify the assets measured at fair value, amortized cost or another measurement method and the percentage of separate account assets measured under each measurement method:

| Description | 1 Amount | 2 Percentage |
|--------------------------------------|-------------------|-----------------|
| 5.41 Fair Value | \$ 52,340,206,257 | 100.0 % |
| 5.42 Amortized Cost | \$ | % |
| 5.43 Other Measurement Methods | \$ | % |

5.5 For the assets not measured at fair value, provide a comparison of the reported value to current fair value and identify the unrealized gain or loss that would have been recorded if the assets had been reported at fair value:

| 1 | 2 | 3 |
|-------------------------------|------------|---------------------------------|
| Assets Held at Amortized Cost | Fair Value | Unrecorded Unrealized Gain/Loss |
| 5.51... \$ | \$ | \$ |

| 1 | 2 | 3 |
|---|------------|---------------------------------|
| Assets Held at Other Measurement Method | Fair Value | Unrecorded Unrealized Gain/Loss |
| 5.52... \$ | \$ | \$ |

GENERAL INTERROGATORIES

Securities Lending Transactions Within Separate Accounts

- 6.1 Does the reporting entity engage in securities lending transactions with separate account assets? Yes [] No [X]
- 6.2 If yes, does the reporting entity have written policies and procedures for such transactions? Yes [] No [] N/A [X]
- 6.3 Does the reporting entity obtain approval, or otherwise provide notification to contract holders, regarding securities lending transactions that occur with separate account assets? Yes [] No [] N/A [X]
- 6.4 Are all securities lending transactions reported on balance sheet? Yes [] No [] N/A [X]
- 6.5 Provide a description of the reporting entity's securities lending transaction program, specifically identifying any variations from the securities lending transaction program administered by the general account.
- 6.6 Provide detail on the current status of separate account transactions by separate account product:
- 6.61 Amount of any loaned securities within the separate account and the percentage of separate account assets lent
- | | | |
|------------------------|----------|---|
| 6.611 Amount | \$ | |
| 6.612 Percentage | | % |
- 6.62 Identify whether securities lent are reported at book value or market value
- | | | |
|--------------------------|----------|--|
| 6.621 Book Value | \$ | |
| 6.622 Market Value | \$ | |
- 6.63 Detail on collateral received:
- 6.631 Aggregate Amount Collateral Received
- | | | |
|--|----------|--|
| 6.6311 Open | \$ | |
| 6.6312 30 Days or Less | \$ | |
| 6.6313 31 to 60 Days | \$ | |
| 6.6314 61 to 90 Days | \$ | |
| 6.6315 Greater than 90 Days | \$ | |
| 6.6316 Total Collateral Received | \$ | |
- 6.632 The aggregate fair value of all securities acquired from the sale, trade or use of the accepted collateral (reinvested collateral) \$
- 6.633 Narrative discussion about sources and uses of collateral:
.....
- 6.634 Collateral for transactions that extend beyond one year from the reporting date \$
- 6.7 For the reporting entity's security lending program state the amount of the following as December 31 of the current year:
- | | | |
|--|----------|--|
| 6.71 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 (Sum of Schedule DL, Parts 1 and 2, Column 5) | \$ | |
| 6.72 Total book adjusted/carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 (Sum of Schedule DL, Parts 1 and 2, Column 6) | \$ | |
| 6.73 Total payable for securities lending reported on the liability page (Page 3, Line 14, Column 3) | \$ | |

FHLB Funding Agreements

- 7.1 Does the reporting entity report Federal Home Loan Bank (FHLB) funding agreements within the separate account? Yes [] No [X]
- 7.2 Provide detail on the elements that support the classification of FHLB funding agreements within the separate account
.....
- 7.3 Provide detail regarding the FHLB funding agreements classified within the separate account:
- | 1
Amount of FHLB
Stock Purchased or
Owned | 2
Amount of Collateral
Pledged to the
FHLB | 3
Total Borrowing or
Funding Capacity
Currently Available | 4
Total Reserves Related
to FHLB
Agreements |
|--|---|--|--|
| \$ | \$ | \$ | \$ |
- 7.4 For funding agreements within the separate account, provide a general description on the nature of the agreement, type of funding (lines of credit, borrowed money, etc) and intended use of funding.
.....

GENERAL INTERROGATORIES

Reporting Differences Between GAAP and SAP Financial Statements (This disclosure is applicable to all reporting entities regardless if they file GAAP financial statements)

- 8.1 Does the reporting entity file GAAP financial statements? Yes [] No [X]
- 8.2 In accordance with the different separate account reporting requirements between GAAP (SOP 03-1) and statutory accounting, does the reporting entity have products that are classified within the separate account that were, or would have been if GAAP financial statements had been completed, required to be reported within the general account under GAAP financials? Pursuant to SOP 03-1, all of the following conditions must be met to receive separate account reporting classification under GAAP: Yes [X] No [] N/A []
- a. Legal Recognition - The separate account is legally recognized. That is, the separate account is established, approved, and regulated under special rules such as state insurance laws, federal securities laws, or similar foreign laws.
 - b. Legally Insulated - The separate account assets supporting the contract liabilities are legally insulated from the general account liabilities of the insurance enterprise (that is, the contract holder is not subject to insurer default risk to the extent of the assets held in the separate account).
 - c. Investment Directive - The insurer must, as a result of contractual, statutory, or regulatory requirements, invest the contract holder's funds within the separate account as directed by the contract holder in designated investment alternatives or in accordance with specific investment objectives or policies.
 - d. Investment Performance - All investment performance, net of contract fees and assessments, must as a result of contractual, statutory, or regulatory requirements be passed through to the individual contract holder. Contracts may specify conditions under which there may be a minimum guarantee, but not a ceiling, as a ceiling would prohibit all investment performance from being passed through to the contract holder
- 8.3 Identify all separate account products and identify whether each product was classified within a separate account for GAAP reporting purposes. (For non-GAAP filers, this disclosure should reflect whether the GAAP classification would have been the same if GAAP financials had been completed.) For products that were (or would have been) reported differently, identify which SOP 03-1 condition prevented separate account GAAP classification for that particular product.

| 1 Product Identifier | 2 Same as GAAP / Condition that Requires GAAP General Account Reporting |
|---|--|
| Alpha-Backed Note Separate Account | GAAP GIA classification due to investment performance |
| Capital Preservation | GAAP GIA classification due to investment performance |
| Separate Account Guaranteed Interest Contract | GAAP GIA classification due to investment performance |
| Stable Value Bank-owned Life Insurance | GAAP GIA classification due to investment performance |
| Supplemental Account | GAAP GIA classification due to investment performance |
| Cornerstone Hotel Income Equity Fund | Same as GAAP |
| Corporate-owned Life Insurance | Same as GAAP |
| Group Variable Universal Life | Same as GAAP |
| Individual Immediate Variable Annuity | Same as GAAP |
| Individual Variable Annuity | Same as GAAP |
| Individual Variable Universal Life | Same as GAAP |
| Non-guaranteed Retirement Services SIAs | Same as GAAP |

Interest Maintenance Reserve

N O N E

Interest Maintenance Reserve - Amortization

N O N E

Asset Valuation Reserve - Default Component

N O N E

Asset Valuation Reserve - Equity Component

N O N E

Asset Valuation Reserve Replications (Synthetic) Assets

N O N E

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Assets Line 16

| | Current Year | | | Prior Year |
|---|-------------------------------|--------------------------|-----------------------------|------------|
| | 1 General Account Basis | 2 Fair Value Basis | 3 Total (Cols. 1 + 2) | 4 Total |
| 1604. Foreign income tax recoverable | | 6,378 | 6,378 | 4,253 |
| 1605. Receivable hedge fund reserves | | | | 945,079 |
| 1697. Summary of remaining write-ins for Line 16 from overflow page | | 6,378 | 6,378 | 949,332 |

Additional Write-ins for Exhibit 5 Line 10.2

| | 1 Amount |
|---|--------------|
| 10.204. Miscellaneous income / loss | 6,522 |
| 10.205. Foreign income tax recoverable | 2,125 |
| 10.206. Receivable hedge fund reserves | (945,079) |
| 10.207. Change in other transfers to general account due or accrued | (1,126,797) |
| 10.208. Change in derivative premiums | (12,726,121) |
| 10.209. Change in remittances and items not allocated | (62,075,598) |
| 10.297. Summary of remaining write-ins for Line 10.2 from overflow page | (76,864,948) |

SCHEDULE A - VERIFICATION BETWEEN YEARS

Real Estate

| | | |
|-----|---|--------------|
| 1. | Book/adjusted carrying value, December 31 of prior year | 128,670,891 |
| 2. | Cost of acquired: | |
| 2.1 | Actual cost at time of acquisition (Part 2, Column 6) | |
| 2.2 | Additional investment made after acquisition (Part 2, Column 9) | 14,730,938 |
| 3. | Current year change in encumbrances: | |
| 3.1 | Totals, Part 1, Column 13 | 1,276,804 |
| 3.2 | Totals, Part 3, Column 11 | 1,276,804 |
| 4. | Total gain (loss) on disposals, Part 3, Column 18 | (4,792,483) |
| 5. | Deduct amounts received on disposals, Part 3, Column 15 | 56,345,800 |
| 6. | Total foreign exchange change in book/adjusted carrying value: | |
| 6.1 | Totals, Part 1, Column 15 | |
| 6.2 | Totals, Part 3, Column 13 | |
| 7. | Deduct current year's other than temporary impairment recognized: | |
| 7.1 | Totals, Part 1, Column 12 | |
| 7.2 | Totals, Part 3, Column 10 | |
| 8. | Deduct current year's depreciation: | |
| 8.1 | Totals, Part 1, Column 11 | (3,657,112) |
| 8.2 | Totals, Part 3, Column 9 | (12,969,278) |
| 9. | Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) | 100,166,740 |
| 10. | Deduct total nonadmitted amounts | |
| 11. | Statement value at end of current period (Line 9 minus Line 10) | 100,166,740 |

SCHEDULE B - VERIFICATION BETWEEN YEARS

Mortgage Loans

| | | |
|------|---|-----------|
| 1. | Book value/recorded investment excluding accrued interest, December 31 of prior year | 4,545,735 |
| 2. | Cost of acquired: | |
| 2.1 | Actual cost at time of acquisition (Part 2, Column 7) | |
| 2.2 | Additional investment made after acquisition (Part 2, Column 8) | |
| 3. | Capitalized deferred interest and other: | |
| 3.1 | Totals, Part 1, Column 12 | |
| 3.2 | Totals, Part 3, Column 11 | |
| 4. | Accrual of discount | |
| 5. | Unrealized valuation increase (decrease): | |
| 5.1 | Totals, Part 1, Column 9 | 56,972 |
| 5.2 | Totals, Part 3, Column 8 | 56,972 |
| 6. | Total gain (loss) on disposals, Part 3, Column 18 | (2,048) |
| 7. | Deduct amounts received on disposals, Part 3, Column 15 | 534,130 |
| 8. | Deduct amortization of premium and mortgage interest points and commitment fees | |
| 9. | Total foreign exchange change in book value/recorded investment excluding accrued interest: | |
| 9.1 | Totals, Part 1, Column 13 | |
| 9.2 | Totals, Part 3, Column 13 | |
| 10. | Deduct current year's other than temporary impairment recognized: | |
| 10.1 | Totals, Part 1, Column 11 | |
| 10.2 | Totals, Part 3, Column 10 | |
| 11. | Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) | 4,066,529 |
| 12. | Total valuation allowance | |
| 13. | Subtotal (Line 11 plus 12) | 4,066,529 |
| 14. | Deduct total nonadmitted amounts | |
| 15. | Statement value of mortgages owned at end of current period (Line 13 minus Line 14) | 4,066,529 |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE BA - VERIFICATION BETWEEN YEARS

Other Long-Term Invested Assets

| | |
|--|--------------|
| 1. Book/adjusted carrying value, December 31 of prior year | 350,778,780 |
| 2. Cost of acquired: | |
| 2.1 Actual cost at time of acquisition (Part 2, Column 8) | 3,366,397 |
| 2.2 Additional investment made after acquisition (Part 2, Column 9) | 32,576,381 |
| 3. Capitalized deferred interest and other: | |
| 3.1 Totals, Part 1, Column 16 | |
| 3.2 Totals, Part 3, Column 12 | |
| 4. Accrual of discount | |
| 5. Unrealized valuation increase (decrease): | |
| 5.1 Totals, Part 1, Column 13 | 26,915,103 |
| 5.2 Totals, Part 3, Column 9 | 7,448,870 |
| 6. Total gain (loss) on disposals, Part 3, Column 19 | (13,815,723) |
| 7. Deduct amounts received on disposals, Part 3, Column 16 | 21,233,185 |
| 8. Deduct amortization of premium and depreciation | |
| 9. Total foreign exchange change in book/adjusted carrying value: | |
| 9.1 Totals, Part 1, Column 17 | |
| 9.2 Totals, Part 3, Column 14 | |
| 10. Deduct current year's other than temporary impairment recognized: | |
| 10.1 Totals, Part 1, Column 15 | |
| 10.2 Totals, Part 3, Column 11 | |
| 11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) | 386,036,623 |
| 12. Deduct total nonadmitted amounts | |
| 13. Statement value at end of current period (Line 11 minus Line 12) | 386,036,623 |

SCHEDULE D - VERIFICATION BETWEEN YEARS

Bonds and Stocks

| | |
|---|----------------|
| 1. Book/adjusted carrying value, December 31 of prior year | 38,565,956,351 |
| 2. Cost of bonds and stocks acquired, Part 3, Column 7 | 29,959,133,151 |
| 3. Accrual of discount | |
| 4. Unrealized valuation increase (decrease): | |
| 4.1. Part 1, Column 12 | 181,087,698 |
| 4.2. Part 2, Section 1, Column 15 | 425,000 |
| 4.3. Part 2, Section 2, Column 13 | 2,697,613,372 |
| 4.4. Part 4, Column 11 | (246,459,354) |
| 5. Total gain (loss) on disposals, Part 4, Column 19 | 782,946,307 |
| 6. Deduction consideration for bonds and stocks disposed of, Part 4, Column 7 | 23,956,375,960 |
| 7. Deduct amortization of premium | |
| 8. Total foreign exchange change in book/adjusted carrying value: | |
| 8.1. Part 1, Column 15 | (276,251) |
| 8.2. Part 2, Section 1, Column 19 | |
| 8.3. Part 2, Section 2, Column 16 | 24,162 |
| 8.4. Part 4, Column 15 | 466,809 |
| 9. Deduct current year's other than temporary impairment recognized: | |
| 9.1. Part 1, Column 14 | |
| 9.2. Part 2, Section 1, Column 17 | |
| 9.3. Part 2, Section 2, Column 14 | |
| 9.4. Part 4, Column 13 | |
| 10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) | 47,984,541,285 |
| 11. Deduct total nonadmitted amounts | |
| 12. Statement value at end of current period (Line 10 minus Line 11) | 47,984,541,285 |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE D - SUMMARY BY COUNTRY

Long-Term Bonds and Stocks OWNED December 31 of Current Year

| Description | | 1 Book/Adjusted Carrying Value | 2 Fair Value | 3 Actual Cost | 4 Par Value of Bonds |
|--|----------------------------|--------------------------------------|-----------------|------------------|-------------------------|
| BONDS | | | | | |
| Governments (Including all obligations guaranteed by governments) | 1. United States | 3,668,526,870 | 3,668,526,870 | 3,656,998,405 | 3,523,952,731 |
| | 2. Canada | 8,251,464 | 8,251,464 | 7,718,238 | 6,407,774 |
| | 3. Other Countries | 92,573,398 | 92,573,398 | 81,843,436 | 77,399,653 |
| | 4. Totals | 3,769,351,732 | 3,769,351,732 | 3,746,560,079 | 3,607,760,158 |
| U.S. States, Territories and Possessions (Direct and guaranteed) | 5. Totals | 39,295,423 | 39,295,423 | 34,758,989 | 32,575,000 |
| U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed) | 6. Totals | 9,577,092 | 9,577,092 | 7,866,498 | 9,445,000 |
| U.S. Special revenue and special assessment obligations and all non-guaranteed obligations of agencies and authorities of governments and their political subdivisions | 7. Totals | 1,487,877,281 | 1,487,877,281 | 1,466,071,219 | 1,383,047,967 |
| Industrial and Miscellaneous and Hybrid Securities (unaffiliated) | 8. United States | 5,784,541,961 | 5,784,541,961 | 5,575,463,143 | 5,364,052,704 |
| | 9. Canada | 105,267,674 | 105,267,674 | 99,685,216 | 95,063,910 |
| | 10. Other Countries | 807,217,885 | 807,217,885 | 777,326,810 | 743,802,013 |
| | 11. Totals | 6,697,027,520 | 6,697,027,520 | 6,452,475,169 | 6,202,918,627 |
| Parent, Subsidiaries and Affiliates | 12. Totals | | | | |
| | 13. Total Bonds | 12,003,129,048 | 12,003,129,048 | 11,707,731,954 | 11,235,746,752 |
| PREFERRED STOCKS | | | | | |
| Industrial and Miscellaneous (unaffiliated) | 14. United States | 3,062,500 | 3,062,500 | 1,790,335 | |
| | 15. Canada | | | | |
| | 16. Other Countries | | | | |
| | 17. Totals | 3,062,500 | 3,062,500 | 1,790,335 | |
| Parent, Subsidiaries and Affiliates | 18. Totals | | | | |
| | 19. Total Preferred Stocks | 3,062,500 | 3,062,500 | 1,790,335 | |
| COMMON STOCKS | | | | | |
| Industrial and Miscellaneous (unaffiliated) | 20. United States | 35,955,327,574 | 35,955,327,574 | 32,403,339,790 | |
| | 21. Canada | 3,597,864 | 3,597,864 | 2,901,013 | |
| | 22. Other Countries | 19,424,299 | 19,424,299 | 17,819,806 | |
| | 23. Totals | 35,978,349,737 | 35,978,349,737 | 32,424,060,609 | |
| Parent, Subsidiaries and Affiliates | 24. Totals | | | | |
| | 25. Total Common Stocks | 35,978,349,737 | 35,978,349,737 | 32,424,060,609 | |
| | 26. Total Stocks | 35,981,412,237 | 35,981,412,237 | 32,425,850,944 | |
| | 27. Total Bonds and Stocks | 47,984,541,285 | 47,984,541,285 | 44,133,582,898 | |

SCHEDULE DA - VERIFICATION BETWEEN YEARS

Short-Term Investments

| | 1 | 2 | 3 | 4 | 5 |
|---|---------------|---------------|----------------|--|--|
| | Total | Bonds | Mortgage Loans | Other Short-term Investment Assets (a) | Investments in Parent, Subsidiaries and Affiliates |
| 1. Book/adjusted carrying value, December 31 of prior year | 254,001,771 | 254,001,771 | | | |
| 2. Cost of short-term investments acquired | 2,482,786,006 | 2,482,786,006 | | | |
| 3. Accrual of discount | 36,726 | 36,726 | | | |
| 4. Unrealized valuation increase (decrease) | | | | | |
| 5. Total gain (loss) on disposals | (295,616) | (295,616) | | | |
| 6. Deduct consideration received on disposals | 2,105,501,024 | 2,105,501,024 | | | |
| 7. Deduct amortization of premium | 82,459 | 82,459 | | | |
| 8. Total foreign exchange change in book/adjusted carrying value | | | | | |
| 9. Deduct current year's other than temporary impairment recognized | | | | | |
| 10. Book adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) | 630,945,404 | 630,945,404 | | | |
| 11. Deduct total nonadmitted amounts | | | | | |
| 12. Statement value at end of current period (Line 10 minus Line 11) | 630,945,404 | 630,945,404 | | | |

(a) Indicate the category of such assets, for example, joint ventures, transportation equipment:

SCHEDULE DB - PART A - VERIFICATION BETWEEN YEARS

Options, Caps, Floors, Collars, Swaps and Forwards

| | |
|---|---------------|
| 1. Book/adjusted carrying value, December 31, prior year (Line 9, prior year) | 153,363,799 |
| 2. Cost paid/(consideration received) on additions: | |
| 2.1 Current year paid/(consideration received) at time of acquisition, still open, Section 1, Column 12 | 2,721,097 |
| 2.2 Current year paid/(consideration received) at time of acquisition, terminated, Section 2, Column 14 | 2,341,044 |
| | 5,062,141 |
| 3. Unrealized valuation increase/(decrease): | |
| 3.1 Section 1, Column 17 | (24,099,663) |
| 3.2 Section 2, Column 19 | (114,131,208) |
| | (138,230,870) |
| 4. Total gain (loss) on termination recognized, Section 2, Column 22 | 165,886,954 |
| 5. Considerations received/(paid) on terminations, Section 2, Column 15 | 183,675,214 |
| 6. Amortization: | |
| 6.1 Section 1, Column 19 | |
| 6.2 Section 2, Column 21 | |
| 7. Adjustment to the book/adjusted carrying value of hedged item: | |
| 7.1 Section 1, Column 20 | |
| 7.2 Section 2, Column 23 | |
| 8. Total foreign exchange change in book/adjusted carrying value: | |
| 8.1 Section 1, Column 18 | (167,726) |
| 8.2 Section 2, Column 20 | 349,489 |
| | 181,763 |
| 9. Book/adjusted carrying value at end of current period (Lines 1+2+3+4-5+6+7+8) | 2,588,571 |
| 10. Deduct nonadmitted assets | |
| 11. Statement value at end of current period (Line 9 minus Line 10) | 2,588,571 |

SCHEDULE DB - PART B - VERIFICATION BETWEEN YEARS

Futures Contracts

| | |
|--|-----------|
| 1. Book/adjusted carrying value, December 31 of prior year | |
| 2. Net cash deposits (Section 1, Broker Name/Net Cash Deposits Footnote) | |
| 3.1 Change in variation margin on open contracts: | |
| 3.11 Section 1, Column 15, current year minus | 168,305 |
| 3.12 Section 1, Column 15, prior year | 432,540 |
| | (264,235) |
| 3.2 Add: | |
| Change in adjustment to basis of hedged item: | |
| 3.21 Section 1, Column 17, current year to date minus | |
| 3.22 Section 1, Column 17, prior year | |
| Change in amount recognized: | |
| 3.23 Section 1, Column 16, current year to date minus | 168,305 |
| 3.24 Section 1, Column 16, prior year | 432,540 |
| | (264,235) |
| | (264,235) |
| 3.3 Subtotal (Line 3.1 minus Line 3.2) | |
| 4.1 Variation margin on terminated contracts during the year (Section 2, Column 16) | 1,264,217 |
| 4.2: Less: | |
| 4.21 Amount used to adjust basis of hedged item (Section 2, Column 17) .. | |
| 4.22 Amount recognized (Section 2, Column 16) | 1,264,217 |
| | 1,264,217 |
| 4.3 Subtotal (Line 4.1 minus Line 4.2) | |
| 5. Dispositions gains (losses) on contracts terminated in prior year: | |
| 5.1 Recognized | |
| 5.2 Used to adjust basis of hedged items | |
| 6. Book/adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2) | |
| 7. Deduct total nonadmitted amounts | |
| 8. Statement value at end of current period (Line 6 minus Line 7) | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

Replication (Synthetic Asset) Transactions Open as of December 31 of Current Year

| Replication (Synthetic Asset) Transactions | | | | | | | | Components of the Replication (Synthetic Asset) Transactions | | | | | | | |
|--|-------------|---------------------------------------|-----------------|------------------------------|------------|-------------|---------------|--|------------------------------|------------|-------------------------|-------------|---------------------------------------|------------------------------|------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Derivative Instrument(s) Open | | | Cash Instrument(s) Held | | | | |
| Number | Description | NAIC Designation or Other Description | Notional Amount | Book/Adjusted Carrying Value | Fair Value | Description | Maturity Date | Description | Book/Adjusted Carrying Value | Fair Value | CUSIP | Description | NAIC Designation or Other Description | Book/Adjusted Carrying Value | Fair Value |
| NONE | | | | | | | | | | | | | | | |
| 999999 - Totals | | | | | | | | | | | | | | | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 2

Replication (Synthetic Asset) Transactions Open

| | First Quarter | | Second Quarter | | Third Quarter | | Fourth Quarter | | Year To Date | |
|--|--------------------------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|--|--------------------------------|---|
| | 1 Number of Positions | 2 Total Replication (Synthetic Asset) Transactions Statement Value | 3 Number of Positions | 4 Total Replication (Synthetic Asset) Transactions Statement Value | 5 Number of Positions | 6 Total Replication (Synthetic Asset) Transactions Statement Value | 7 Number of Positions | 8 Total Replication (Synthetic Asset) Transactions Statement Value | 9 Number of Positions | 10 Total Replication (Synthetic Asset) Transactions Statement Value |
| 1. Beginning Inventory | 1 | 3,971,022 | | | | | | | 1 | 3,971,022 |
| 2. Add: Opened or Acquired Transactions..... | | | | | | | | | | |
| 3. Add: Increases in Replication (Synthetic Asset) Transactions Statement Value..... | XXX | | XXX | | XXX | | XXX | | XXX | |
| 4. Less: Closed or Disposed of Transactions..... | 1 | 3,971,022 | | | | | | | 1 | 3,971,022 |
| 5. Less: Positions Disposed of for Failing Effectiveness Criteria..... | | | | | | | | | | |
| 6. Less: Decreases in Replication (Synthetic Asset) Transactions Statement Value..... | XXX | | XXX | | XXX | | XXX | | XXX | |
| 7. Ending Inventory | | | | | | | | | | |

ANNUAL STATEMENT FOR THE YEAR 2012 OF THE SEPARATE ACCOUNTS OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - VERIFICATION

Verification of Book/Adjusted Carrying Value, Fair Value and Potential Exposure of all Open Derivative Contracts

| | | Book/Adjusted Carrying Value Check |
|-----|---|------------------------------------|
| 1. | Part A, Section 1, Column 14..... | 2,588,571 |
| 2. | Part B, Section 1, Column 14..... | |
| 3. | Total (Line 1 plus Line 2)..... | 2,588,571 |
| 4. | Part D, Column 5..... | 9,448,151 |
| 5. | Part D, Column 6..... | (6,859,580) |
| 6. | Total (Line 3 minus Line 4 minus Line 5)..... | |
| | | Fair Value Check |
| 7. | Part A, Section 1, Column 16..... | 2,588,571 |
| 8. | Part B, Section 1, Column 13..... | |
| 9. | Total (Line 7 plus Line 8)..... | 2,588,571 |
| 10. | Part D, Column 8..... | 9,448,151 |
| 11. | Part D, Column 9..... | (6,859,580) |
| 12. | Total (Line 9 minus Line 10 minus Line 11)..... | |
| | | Potential Exposure Check |
| 13. | Part A, Section 1, Column 21..... | 625,252,613 |
| 14. | Part B, Section 1, Column 19..... | 4,350,900 |
| 15. | Part D, Column 11..... | 629,603,514 |
| 16. | Total (Line 13 plus Line 14 minus Line 15)..... | |

SCHEDULE E - VERIFICATION BETWEEN YEARS

(Cash Equivalents)

| | 1 | 2 | 3 |
|---|-----------------|-----------------|-----------|
| | Total | Bonds | Other (a) |
| 1. Book/adjusted carrying value, December 31 of prior year | 1,715,402,700 | 1,715,402,700 | |
| 2. Cost of cash equivalents acquired | 102,625,549,370 | 102,625,549,370 | |
| 3. Accrual of discount | 14,584 | 14,584 | |
| 4. Unrealized valuation increase (decrease) | | | |
| 5. Total gain (loss) on disposals | 25,109 | 25,109 | |
| 6. Deduct consideration received on disposals | 101,913,183,730 | 101,913,183,730 | |
| 7. Deduct amortization of premium | | | |
| 8. Total foreign exchange change in book/adjusted carrying value | | | |
| 9. Deduct current year's other than temporary impairment recognized | | | |
| 10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) | 2,427,808,033 | 2,427,808,033 | |
| 11. Deduct total nonadmitted amounts | | | |
| 12. Statement value at end of current period (Line 10 minus Line 11) | 2,427,808,033 | 2,427,808,033 | |

(a) Indicate the category of such assets, for example, joint ventures, transportation equipment: