



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

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2016

OF THE CONDITION AND AFFAIRS OF THE SEPARATE ACCOUNTS OF THE

MML Bay State Life Insurance Company

NAIC Group Code 0435 0435 NAIC Company Code 70416 Employer's ID Number 43-0581430
(Current) (Prior)

Organized under the Laws of Connecticut, State of Domicile or Port of Entry CT

Country of Domicile United States of America

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

Incorporated/Organized 04/01/1935 Commenced Business 07/01/1894

Statutory Home Office 100 Bright Meadow Boulevard, Enfield, CT, US 06082
(Street and Number) (City or Town, State, Country and Zip Code)

Main Administrative Office 1295 State Street
(Street and Number)
Springfield, MA, US 01111, 413-788-8411
(City or Town, State, Country and Zip Code) (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
(Street and Number)
Springfield, MA, US 01111, 413-788-8411
(City or Town, State, Country and Zip Code) (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 Pia Denise Flanagan Apointed Actuary Douglas Wright Taylor

OTHER

Elizabeth Ward Chicares #, Chief Financial Officer Mark Douglas Roellig, Executive Vice President and General Counsel Michael Robert Fanning, Executive Vice President
Melvin Timothy Corbett, Executive Vice President

DIRECTORS OR TRUSTEES

Roger William Crandall - Chairman Michael Robert Fanning Elizabeth Ward Chicares #
Mark Douglas Roellig

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 Pia Denise Flanagan Todd Garrett Picken
President and Chief Executive Officer Secretary Treasurer

Subscribed and sworn to before me this _____ day of _____
a. Is this an original filing? Yes [] No []
b. If no,
1. State the amendment number.....
2. Date filed
3. Number of pages attached.....

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State 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).....	953,267,813	2,021,849,951	2,975,117,764	2,910,429,996
2. Stocks (Schedule D):				
2.1 Preferred stocks				
2.2 Common stocks		922,484,495	922,484,495	917,857,225
3. Mortgage loans on real estate (Schedule B).....	16,479,834		16,479,834	18,696,690
4. Real estate (Schedule A):				
4.1 Properties held for the production of income (less \$ encumbrances)				
4.2 Properties held for sale (less \$ encumbrances)				
5. Contract loans				
6. Cash (\$ 620,684 Schedule E - Part 1), and cash equivalents (\$ 262,475,070 , Schedule E - Part 2)	62,296,781	200,798,973	263,095,754	336,362,648
7. Short-term investments (Schedule DA)	40,564,681	35,526,212	76,090,893	37,011,389
8. Derivatives (Schedule DB)	210,668	21,581,903	21,792,571	19,331,367
9. Other invested assets (Schedule BA)				
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)	1,072,819,777	3,202,241,534	4,275,061,311	4,239,689,315
13. Investment income due and accrued	6,686,331	5,884,591	12,570,922	12,776,610
14. Receivables for securities	7,640,124	16,779,022	24,419,146	26,358,119
15. Net adjustment in assets and liabilities due to foreign exchange rates				
16. Aggregate write-ins for other than invested assets.....				
17. Total (Lines 12 to 16)	1,087,146,232	3,224,905,147	4,312,051,379	4,278,824,044
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.				
1602.				
1603.				
1698. Summary of remaining write-ins for Line 16 from overflow page				
1699. Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above)				

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State 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)	1,093,245,701	3,197,382,962	4,290,628,663	4,237,379,658
2. Liability for deposit-type contracts (Exhibit 4, Line 9, Col. 1)				
3. Interest Maintenance Reserve	1,759,132		1,759,132	2,086,556
4. Charges for investment management, administration and contract guarantees due or accrued	705,365	284,740	990,105	1,104,252
5. Investment expenses due or accrued (Exhibit 1, Line 24)				
6. Investment taxes, licenses and fees due or accrued, excluding federal income taxes (Exhibit 2, Line 8)				
7. Federal and foreign income taxes due or accrued (excluding deferred taxes)				
8. Reserve for future federal income taxes				
9. Unearned investment income				
10. Other transfers to general account due or accrued (net) (including \$577,737 accrued expense allowances recognized in reserves).....	(17,564,483)	577,737	(16,986,746)	(17,637,420)
11. Remittances and items not allocated	12,593	883,639	896,232	2,083,688
12. Derivatives	131,102	14,226	145,328	78,756
13. Payable for securities	8,856,822	25,103,636	33,960,458	53,224,114
14. Payable for securities lending				
15. Net adjustment in assets and liabilities due to foreign exchange rates				
16. Aggregate write-ins for liabilities		658,207	658,207	504,440
17. Total liabilities (including \$(15,996,641) due or accrued net transfers to or (from) the general account)	1,087,146,232	3,224,905,147	4,312,051,379	4,278,824,044
18. Contributed surplus				
19. Aggregate write-ins for special surplus funds				
20. Unassigned funds				
21. Surplus (Lines 18 through 20)				
22. Totals	1,087,146,232	3,224,905,147	4,312,051,379	4,278,824,044
DETAILS OF WRITE-INS				
1601. Claims in course of settlement		652,541	652,541	495,517
1602. Annuitant mortality fluctuation fund		5,583	5,583	8,848
1603. Derivatives accrued interest on swaps		83	83	75
1698. Summary of remaining write-ins for Line 16 from overflow page				
1699. Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above)		658,207	658,207	504,440
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 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State 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	34,228,357	36,648,717
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)	34,228,357	36,648,717
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)		
3. Net investment income and capital gains and losses	160,469,420	90,290,631
4. Aggregate write-ins for other income		
5. Totals (Lines 1.4 to 4)	194,697,777	126,939,348
DEDUCT:		
6. Transfers from the Separate Account on account of contract benefits:		
6.1 Death benefits	24,282,749	31,841,112
6.2 Matured endowments		
6.3 Annuity benefits	3,956,535	705,857
6.4 Payments on supplementary contracts with life contingencies		
6.5 Accident and health benefits		
6.6 Surrender benefits and withdrawals for life contracts	39,852,273	40,242,867
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits		
7. Transfers on account of policy loans	7,171,961	7,480,832
8. Net transfer of reserves from or (to) Separate Accounts	(5,373,157)	1,682,969
9. Other transfers from the Separate Accounts:		
9.1 Federal and foreign income taxes incurred		
9.2 Change in expense allowances recognized in reserves	(91,854)	(117,239)
9.3 Aggregate write-ins for other transfers from Separate Accounts	1,381	
10. Subtotals (Lines 6.1 to 9.3)	69,799,888	81,836,398
11. Fees associated with charges for investment management, administration and contract guarantees	71,495,125	70,035,625
12. Increase in aggregate reserve for life and accident and health contracts	53,249,005	(24,667,835)
13. Increase in liability for deposit-type contracts		
14. Increase in reserve for future federal income taxes		
15. Aggregate write-ins for reserves and funds	153,759	(264,840)
16. Totals (Lines 10 to 15)	194,697,777	126,939,348
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)		
SURPLUS ACCOUNT		
18. Surplus, December 31, prior year		
19. Net gain from operations (Line 17)		
20. Surplus contributed or (withdrawn) during year		
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		
24. Surplus, December 31, current year (Page 3, Line 21)		
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.		
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)		
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	1,381	
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)	1,381	
1501. Claims in course of settlement	157,024	(268,140)
1502. Change in annuitant mortality fluctuation fund	(3,265)	3,300
1503.		
1598. Summary of remaining write-ins for Line 15 from overflow page		
1599. Totals (Lines 1501 thru 1503 plus 1598)(Line 15 above)	153,759	(264,840)
2301.		
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)		

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State 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	34,228,357	34,180,431	15,560		32,366				
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)	34,228,357	34,180,431	15,560		32,366				
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)									
3. Net investment income and capital gains and losses	160,469,420	49,280,183	1,913,618		109,275,619				
4. Aggregate write-ins for other income									
5. Totals (Lines 1.4 to 4)	194,697,777	83,460,614	1,929,178		109,307,985				
DEDUCT:									
6. Transfers from the Separate Account on account of contract benefits:									
6.1 Death benefits	24,282,749	3,830,511			20,452,238				
6.2 Matured endowments									
6.3 Annuity benefits	3,956,535		3,956,535						
6.4 Payments on supplementary contracts with life contingencies									
6.5 Accident and health benefits									
6.6 Surrender benefits and withdrawals for life contracts	39,852,273	35,397,947	3,729,046		725,280				
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits									
7. Transfers on account of policy loans	7,171,961	7,171,961							
8. Net transfer of reserves from or (to) Separate Accounts	(5,373,157)	943,032	4,825		(6,321,014)				
9. Other transfers from the Separate Accounts:									
9.1 Federal and foreign income taxes incurred									
9.2 Change in expense allowances recognized in reserves	(91,854)	(86,573)	(5,281)						
9.3 Aggregate write-ins for other transfers from Separate Accounts	1,381				1,381				
10. Subtotals (Lines 6.1 to 9.3)	69,799,888	47,256,878	7,685,125		14,857,885				
11. Fees associated with charges for investment management, administration and contract guarantees	71,495,125	39,600,002	617,347		31,277,776				
12. Increase in aggregate reserve for life and accident and health contracts	53,249,005	(3,553,290)	(6,370,029)		63,172,324				
13. Increase in liability for deposit-type contracts									
14. Increase in reserve for future federal income taxes									
15. Aggregate write-ins for reserves and funds	153,759	157,024	(3,265)						
16. Totals (Lines 10 to 15)	194,697,777	83,460,614	1,929,178		109,307,985				
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)									
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.									
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)									
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	1,381				1,381				
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)	1,381				1,381				
1501. Claims in course of settlement	157,024	157,024							
1502. Change in annuitant mortality fluctuation fund	(3,265)		(3,265)						
1503.									
1598. Summary of remaining write-ins for Line 15 from overflow page									
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)	153,759	157,024	(3,265)						

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State 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	4,237,379,658	691,312,931	46,375,329		3,499,691,398	
2. Tabular net premiums and considerations for annuities and supplementary contracts with life contingencies	34,228,357	34,180,431	15,560		32,366	
3. Increase or (decrease) from investment results after provision for federal income taxes	160,469,420	49,280,183	1,913,618		109,275,619	
4. Tabular less actual reserve released						
5. Increase in reserve on account of change in valuation basis						
6. Other increases (net)						
7. Totals (Lines 1 to 6)	4,432,077,435	774,773,545	48,304,507		3,608,999,383	
8. Net transfer of reserves from or (to) Separate Accounts	(5,373,157)	943,032	4,825		(6,321,014)	
9. Tabular cost						
10. Reserves released by death	24,282,749	3,830,511			20,452,238	
11. Reserves released by other terminations (net)	39,852,273	35,397,947	3,729,046		725,280	
12. Transfers on account of annuity and supplementary contract payments involving life contingencies	3,956,535		3,956,535			
13. Charges for investment management, administration and contract guarantees	71,495,125	39,600,002	617,347		31,277,776	
14. Aggregate write-ins for other decreases in reserves	7,235,247	7,242,412	(8,546)		1,381	
15. Total deductions (Lines 8 to 14)	141,448,772	87,013,904	8,299,207		46,135,661	
16. Reserve December 31 of current year	4,290,628,663	687,759,641	40,005,300		3,562,863,722	
DETAILS OF WRITE-INS						
1401. Change in policy loans	7,171,961	7,171,961				
1402. Change in claims in course of settlement	157,024	157,024				
1403. Miscellaneous loss	1,381				1,381	
1498. Summary of remaining write-ins for Line 14 from overflow page	(95,119)	(86,573)	(8,546)			
1499. Totals (Lines 1401 thru 1403 plus 1498) (Line 14 above)	7,235,247	7,242,412	(8,546)		1,381	

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

EXHIBIT OF NET INVESTMENT INCOME

	1 Collected During Year	2 Earned During Year
1. U.S. Government bonds	(a) .....10,981,177	.....11,017,529
1.1 Bonds exempt from U.S. tax	(a) .....	.....
1.2 Other bonds (unaffiliated)	(a) 85,112,099	.....84,782,075
1.3 Bonds of affiliates	(a) .....	.....
2.1 Preferred stocks (unaffiliated)	(b) .....	.....
2.11 Preferred stocks of affiliates	(b) .....	.....
2.2 Common stocks (unaffiliated) .....	..... 65,901,363	.....65,901,363
2.21 Common stocks of affiliates .....	.....	.....
3. Mortgage loans	(c) 940,494	.....926,072
4. Real estate	(d) .....	.....
5. Contract loans .....	.....	.....
6. Cash, cash equivalents and short-term investments	(e) 354,714	.....457,124
7. Derivative instruments	(f) 2,671,377	.....2,671,370
8. Other invested assets .....	.....	.....
9. Aggregate write-ins for investment income .....	.....7,936,403	.....7,936,403
10. Total gross investment income	173,897,628	173,691,935
11. Investment expenses	(g) .....	.....
12. Investment taxes, licenses and fees, excluding federal income taxes	(g) .....	.....
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) .....	.....	.....
17. Net investment income (Line 10 minus Line 16) .....	.....	173,691,935
DETAILS OF WRITE-INS		
0901. Miscellaneous Income	7,608,979	7,608,979
0902. Amortization of IMR	327,424	327,424
0903. ....	.....	.....
0998. Summary of remaining write-ins for Line 9 from overflow page .....	.....	.....
0999. Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)	7,936,403	7,936,403
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 \$1,950,498 accrual of discount less \$3,445,449 amortization of premium and less \$2,549,543 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 \$4,025 accrual of discount less \$50,530 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 \$27,667 accrual of discount less \$17,763 amortization of premium and less \$34,647 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	(1,054,830)	.....	(1,054,830)	(1,660,050)	.....
1.1 Bonds exempt from U.S. tax .....	.....	.....	.....	.....	.....
1.2 Other bonds (unaffiliated)	(9,056,494)	.....	(9,056,494)	(11,320,289)	.....
1.3 Bonds of affiliates .....	.....	.....	.....	.....	.....
2.1 Preferred stocks (unaffiliated) .....	.....	.....	.....	.....	.....
2.11 Preferred stocks of affiliates .....	.....	.....	.....	.....	.....
2.2 Common stocks (unaffiliated)	16,375,170	.....	16,375,170	(11,200,498)	.....
2.21 Common stocks of affiliates .....	.....	.....	.....	.....	.....
3. Mortgage loans .....	.....	.....	.....	.....	.....
4. Real estate .....	.....	.....	.....	.....	.....
5. Contract loans .....	.....	.....	.....	.....	.....
6. Cash, cash equivalents and short-term investments	346,888	.....	346,888	.....	.....
7. Derivative instruments	1,952,957	.....	1,952,957	2,394,633	.....
8. Other invested assets .....	.....	.....	.....	.....	.....
9. Aggregate write-ins for capital gains (losses) .....	.....	.....	.....	.....	.....
10. Total capital gains (losses)	8,563,691	.....	8,563,691	(21,786,204)	.....
DETAILS OF WRITE-INS					
0901. ....	.....	.....	.....	.....	.....
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) .....	.....	.....	.....	.....	.....

Exhibit 1

NONE

Exhibit 2

NONE

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 (issued 1983 to 1988)	10,093,300	10,093,300	
0100002. 80 CSO 5.50% CRVM (issued 1988 to 1992)	187,559,631	187,559,631	
0100003. 80 CSO 5.00% CRVM (issued 1993 to 1994)	490,106,710	490,106,710	
0100004. 80 CSO Account Value	3,562,863,722		3,562,863,722
0199999. Life Insurance: Totals	4,250,623,363	687,759,641	3,562,863,722
0200001. Deferred Annuity 4.75%-6.50% CARVM	39,819,197	39,819,197	
0200002. Annuity Reserve 4.00% VA Valuation 82	186,103	186,103	
0299999. Annuities: Totals	40,005,300	40,005,300	
9999999. Totals (to Page 3, Line 1)	4,290,628,663	727,764,941	3,562,863,722

EXHIBIT 3 - INTERROGATORIES

- 1.1 Has the reporting entity ever issued both participating and non-participating variable life insurance contracts?..... Yes [] No [X]
- 2.1 Does the reporting entity at present issue both participating and non-participating variable life insurance contracts?..... Yes [] No [X]
- 2.2 If not, state which kind is issued
Non-participating
- 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	2 Valuation Basis		4 Increase in Actuarial Reserve Due to Change
	3	3	
Description of Valuation Class	Changed From	Changed To	
NONE			
9999999 - Totals (Page 6, Line 5, Analysis of Increase in Reserves)			

Exhibit 4

NONE

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State 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		34,228,357
1.2 Aggregate write-ins for other transfers to Separate Accounts		
2. Deposits on deposit-type contract funds and other liabilities without life or disability contingencies		173,897,628
3. Investment income collected		(39,052,436)
4. Consideration on disposal of short-term bonds net of purchases		1,749,425,823
5. Consideration on disposal of investments (excluding short-term bonds)		
6. Aggregate write-ins for other increases in funds from operations		
7. Total (Lines 1 to 6)		1,918,499,371
8. Cost of investments acquired (excluding short-term bonds)		1,832,495,649
9. Transfers from Separate Accounts on account of contract benefits:		
9.1 Death benefits		26,794,636
9.2 Matured endowments		
9.3 Annuity benefits		3,956,535
9.4 Supplementary contract benefits with life contingencies		
9.5 Accident and health benefits		
9.6 Surrender benefits and withdrawals for life contracts		39,852,273
9.7 Policy loans (net)		7,171,961
9.8 Transfers of reserves (net)		(8,679,061)
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		1,240,326
11. Withdrawals on deposit-type contract funds and other liabilities without life or disability contingencies		
12. Investment expenses (Exhibit 1, Line 25)		
12.1 Fees associated with investment management, administration and contract guarantees		71,609,271
13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9)		
14. Total (Lines 8 to 13)		1,974,441,589
15. Funds from operations (Line 7 minus Line 14)		(55,942,218)
16. Surplus contributed or (withdrawn) during year		
17. Aggregate write-ins for other changes in funds		
18. Total funds (includes \$ 106,477,257 net transfers from general account) (Lines 15 to 17)		(55,942,218)
19. Increase in payable for investments acquired, net of receivable for investments sold		(17,324,683)
20. Decrease in policy loans		
21. Aggregate write-ins for other reconciling items		
22. Increase in cash (Line 18 to 21)		(73,266,894)
RECONCILIATION BETWEEN YEARS		
23. Cash and invested assets, December 31st of prior year		4,239,689,315
24. Increase in cash (Line 22)		(73,266,894)
25. Cost of invested assets acquired		1,967,250,709
26. Adjusted cost of assets disposed of		1,835,294,057
27. Increase in policy loans		
28. Accrual of discount less amortization of premium		(1,531,553)
29. Depreciation on real estate and other invested assets		
30. Increase in net unrealized gains		(21,786,206)
31. Aggregate write-ins for other reconciling items		
32. Cash and invested assets, December 31st of current year		4,275,061,311
DETAILS OF WRITE-INS		
01.201.		
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)		
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. Change in remittances and items not allocated		1,187,454
10.202. Change in transfers to general account due or accrued		51,491
10.203. Miscellaneous loss		1,381
10.298. Summary of remaining write-ins for Line 10.2 from overflow page		
10.299. Totals (Lines 10.201 thru 10.203 plus 10.298) (Line 10.2 above)		1,240,326
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.		
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)		
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	1,093,245,701	25.4
1.2 Annuities		
1.3 Supplementary contracts with life contingencies		
1.4 Accident and health		
1.5 Miscellaneous reserves		
1.6 Total	1,093,245,701	25.4
2. Liability for deposit-type contracts (included in Exhibit 4):		
2.1 Guaranteed interest contracts		
2.2 Annuities certain		
2.3 Supplemental contracts		
2.4 Dividend accumulations or refunds		
2.5 Premium and other deposit funds		
2.6 Total		
3. Other liabilities (included in Page 3, Lines 4, 10, 13 & 14)	(8,002,296)	(0.2)
4. Total liabilities associated with guarantees (Lines 1.6 + 2.6 + 3)	1,085,243,405	25.2
5. Total liabilities not associated with guarantees	3,226,807,974	74.8
6. Total Separate Accounts liabilities (Lines 4 + 5 = Page 3, Line 17)	4,312,051,379	100.0%

GENERAL INTERROGATORIES

Product Mix

1.01 Identify the product types in the separate account, quantify the assets associated with those products, indicate if there are any guarantees associated with those products, quantify seed money and quantify other fees and expenses due to the general account:

Note: A distinct product identifier shall be used for each product and shall be used consistently throughout the interrogatory.

1 Product Identifier	2 Separate Account Assets	3 Guarantees Associated with the Product Yes/No	4 Seed Money	5 Fees and Expenses Due to the General Account	6 Additional Required Surplus Amounts
Stable Value Bank-owned Life Insurance	2,264,393,436	YES			
Bank-owned Life Insurance - Guaranteed	1,087,146,232	YES		15,349,830	
Individual Variable Universal Life	688,935,153	YES			
Corporate-owned Life Insurance	231,545,801	YES			
Individual Variable Annuity	40,030,757	YES			
Totals	4,312,051,379	XXX		15,349,830	

Note: Additional Required Surplus Amounts is defined as additional or permanent surplus that is required to be retained in the separate account in accordance with state law or regulation. These amounts should not include reinvested separate account investment proceeds that have not been allocated to separate account contract holders.

1.02 Did the reporting entity remit seed money, other fees and expenses or additional required surplus amounts to the general account during the current year? Yes [X] No []

1.03 If yes, provide information on the total gross amount of seed money, other fees and expenses or additional required surplus amounts remitted to the general account during the current year (these amounts should not be reflected in the seed money totals in 1.01):

1.031 Seed Money.....	\$
1.032 Other Fees and Expenses.....	\$ 50,738
1.033 Additional Required Surplus Amounts	\$

1.04 Did the reporting entity receive seed money from the general account in the current year? Yes [] No [X]

1.05 If yes, provide information on the total gross amount of seed money received in the current year: (If amounts were both received and remitted in the current year, include the gross amounts in both 1.031 and 1.051.)

1.051 Seed Money Received.....	\$
--------------------------------	----------

1.06 Does the reporting entity consider any of the seed money reflected in separate accounts to be insulated from the general account? Yes [] No [] N/A [X]

1.07 If yes, provide information on the amount of seed money the reporting entity considers insulated from the general account:

1.071 Insulated Seed Money \$

1.08 Does the reporting entity have a policy for repatriating seed money or remitting fees and expenses due and additional required surplus amounts to the general account:

1.081 Seed Money.....	Yes [] No []
1.082 Other Fees and Expenses.....	Yes [X] No []
1.083 Additional Required Surplus Amounts	Yes [] No []

1.09 Provide detail on the time duration for which seed money, other fees and expenses due to the general account and additional required surplus amounts have been held in the separate account:

	1 Seed Money	2 Fees and Expenses Due to the General Account	3 Additional Required Surplus Amounts
1.091 Under 1 Year		15,349,830	
1.092 1 Year - 3 Years			
1.093 Over 3 Years - 5 Years			
1.094 Over 5 Years			
1.095 Total		15,349,830	

1.10 For seed money, other fees and expenses, and additional required surplus amounts held in the separate account, does the reporting entity invest these funds in accordance with investment directives of the general account:

1.101 Seed Money.....	Yes [] No [] N/A [X]
1.102 Other Fees and Expenses.....	Yes [] No [X] N/A []
1.103 Additional Required Surplus Amounts	Yes [] No [] N/A [X]

GENERAL INTERROGATORIES

1.11 If no, does the reporting entity have stated policy and procedure for the investment of seed money, other fees and expenses, and additional required surplus amounts that are retained with the separate account?

1.111 Seed Money..... Yes [] No [] N/A [X]
 1.112 Other Fees and Expenses..... Yes [X] No [] N/A []
 1.113 Additional Required Surplus Amounts Yes [] No [] N/A [X]

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?\$7,427,245
- 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, 2016	\$517,611
2.402	As of December 31, 2015	\$386,032
2.403	As of December 31, 2014	\$163,645
2.404	As of December 31, 2013	\$610,923
2.405	As of December 31, 2012	\$499,761

- 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 [] No [X]
- 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	2	3
Product Identifier with Risk Charges	Risk Charge Reviewed and Opined Upon	Name and Title of Individual who Provided Opinion on Risk Charges

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, 2016	\$
2.702	As of December 31, 2015	\$
2.703	As of December 31, 2014	\$
2.704	As of December 31, 2013	\$
2.705	As of December 31, 2012	\$

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 []
- 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 [] No [X]

GENERAL INTERROGATORIES

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 Product Identifier	2 Net Investment Proceeds	3 Attributed to Contract Holder	4 Transferred to General Account	5 Reinvested Within the Separate Account

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 [] N/A [X]

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 [] No [] N/A [X]

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 [] N/A [X]

Measurement of Separate Account Assets

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

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 [X] No []
 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	\$ 3,342,303,732	77.5 %
5.42 Amortized Cost	\$ 969,747,647	22.5 %
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 Assets Held at Amortized Cost	2 Fair Value	3 Unrecorded Unrealized Gain/Loss
5.51... \$ 969,747,647	\$ 977,995,935	\$ 8,248,288

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

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.....\$

GENERAL INTERROGATORIES

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.

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

GENERAL INTERROGATORIES

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	2
Product Identifier	Same as GAAP / Condition that Requires GAAP General Account Reporting
Stable Value Bank-owned Life Insurance	GAAP GIA Classification due to Investment Performance
Bank-owned Life Insurance - Guaranteed	GAAP GIA Classification due to Investment Performance
Individual Variable Universal Life	Same as GAAP
Corporate-owned Life Insurance	Same as GAAP
Individual Variable Annuity	Same as GAAP

FORM FOR CALCULATING THE INTEREST MAINTENANCE RESERVE

INTEREST MAINTENANCE RESERVE

	1 Amount
1. Reserve as of December 31, Prior Year	2,086,556
2. Current year's realized pre-tax capital gains/(losses) of \$ 1,315,041 transferred into the reserve net of taxes of \$ (460,264)	854,777
3. Adjustment for current year's liability gains/(losses) released from the reserve	(854,777)
4. Balance before reduction for amount transferred to Summary of Operations (Line 1 + Line 2 + Line 3)	2,086,556
5. Current year's amortization released to Summary of Operations (Amortization, Line 1, Column 4)	327,424
6. Reserve as of December 31, current year (Line 4 minus Line 5)	1,759,132

AMORTIZATION

Year of Amortization	1 Reserve as of December 31, Prior Year	2 Current Year's Realized Capital Gains/(Losses) Transferred into the Reserve Net of Taxes	3 Adjustment for Current Year's Liability Gains/(Losses) Released From the Reserve	4 Balance Before Reduction for Current Year's Amortization (Cols. 1 + 2 + 3)
1. 2016	327,419	87,449	(87,444)	327,424
2. 2017	274,713	100,489	(100,494)	274,708
3. 2018	212,197	76,502	(76,502)	212,197
4. 2019	192,030	82,029	(82,029)	192,030
5. 2020	199,905	88,672	(88,672)	199,905
6. 2021	201,531	96,238	(96,238)	201,531
7. 2022	205,545	87,713	(87,713)	205,545
8. 2023	218,817	68,248	(68,248)	218,817
9. 2024	220,096	46,008	(46,008)	220,096
10. 2025	192,984	24,004	(24,004)	192,984
11. 2026	147,494	(1,040)	1,040	147,494
12. 2027	92,398	(7,825)	7,825	92,398
13. 2028	31,684	(1,331)	1,331	31,684
14. 2029	(24,188)	7,085	(7,085)	(24,188)
15. 2030	(47,764)	15,509	(15,509)	(47,764)
16. 2031	(54,315)	24,143	(24,143)	(54,315)
17. 2032	(53,310)	25,201	(25,201)	(53,310)
18. 2033	(49,230)	18,653	(18,653)	(49,230)
19. 2034	(47,355)	11,530	(11,530)	(47,355)
20. 2035	(47,009)	4,100	(4,100)	(47,009)
21. 2036	(40,456)	(2,923)	2,923	(40,456)
22. 2037	(32,313)	(5,740)	5,740	(32,313)
23. 2038	(24,203)	(3,827)	3,827	(24,203)
24. 2039	(10,114)	(1,472)	1,472	(10,114)
25. 2040		873	(873)	
26. 2041		3,054	(3,054)	
27. 2042		4,031	(4,031)	
28. 2043		3,209	(3,209)	
29. 2044		2,304	(2,304)	
30. 2045		1,399	(1,399)	
31. 2046 and Later		492	(492)	
32. Total (Lines 1 to 31)	2,086,556	854,777	(854,777)	2,086,556

ASSET VALUATION RESERVE
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
DEFAULT COMPONENT

Line Number	NAIC Designation	Description	1 Book/Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols.4 x 5)	7 Factor	8 Amount (Cols. 4 x 7)	9 Factor	10 Amount (Cols. 4 x 9)
LONG-TERM BONDS												
1.		Exempt Obligations	245,300,097	XXX	XXX	245,300,097	0.0000		0.0000		0.0000	
2.	1	Highest Quality	546,998,180	XXX	XXX	546,998,180	0.0004	218,799	0.0023	1,258,096	0.0030	1,640,995
3.	2	High Quality	157,668,117	XXX	XXX	157,668,117	0.0019	299,569	0.0058	914,475	0.0090	1,419,013
4.	3	Medium Quality	3,301,419	XXX	XXX	3,301,419	0.0093	30,703	0.0230	75,933	0.0340	112,248
5.	4	Low Quality		XXX	XXX		0.0213		0.0530		0.0750	
6.	5	Lower Quality		XXX	XXX		0.0432		0.1100		0.1700	
7.	6	In or Near Default		XXX	XXX		0.0000		0.2000		0.2000	
8.		Total Unrated Multi-class Securities Acquired by Conversion		XXX	XXX		XXX		XXX		XXX	
9.		Total Long-Term Bonds (Sum of Lines 1 through 8)	953,267,813	XXX	XXX	953,267,813	XXX	549,072	XXX	2,248,504	XXX	3,172,256
PREFERRED STOCK												
10.	1	Highest Quality		XXX	XXX		0.0004		0.0023		0.0030	
11.	2	High Quality		XXX	XXX		0.0019		0.0058		0.0090	
12.	3	Medium Quality		XXX	XXX		0.0093		0.0230		0.0340	
13.	4	Low Quality		XXX	XXX		0.0213		0.0530		0.0750	
14.	5	Lower Quality		XXX	XXX		0.0432		0.1100		0.1700	
15.	6	In or Near Default		XXX	XXX		0.0000		0.2000		0.2000	
16.		Affiliated Life with AVR		XXX	XXX		0.0000		0.0000		0.0000	
17.		Total Preferred Stocks (Sum of Lines 10 through 16)		XXX	XXX		XXX		XXX		XXX	
SHORT - TERM BONDS												
18.		Exempt Obligations	20,966,588	XXX	XXX	20,966,588	0.0000		0.0000		0.0000	
19.	1	Highest Quality	19,598,093	XXX	XXX	19,598,093	0.0004	7,839	0.0023	45,076	0.0030	58,794
20.	2	High Quality		XXX	XXX		0.0019		0.0058		0.0090	
21.	3	Medium Quality		XXX	XXX		0.0093		0.0230		0.0340	
22.	4	Low Quality		XXX	XXX		0.0213		0.0530		0.0750	
23.	5	Lower Quality		XXX	XXX		0.0432		0.1100		0.1700	
24.	6	In or Near Default		XXX	XXX		0.0000		0.2000		0.2000	
25.		Total Short - Term Bonds (Sum of Lines 18 through 24)	40,564,681	XXX	XXX	40,564,681	XXX	7,839	XXX	45,076	XXX	58,794
DERIVATIVE INSTRUMENTS												
26.		Exchange Traded		XXX	XXX		0.0004		0.0023		0.0030	
27.	1	Highest Quality	79,566	XXX	XXX	79,566	0.0004	32	0.0023	183	0.0030	239
28.	2	High Quality		XXX	XXX		0.0019		0.0058		0.0090	
29.	3	Medium Quality		XXX	XXX		0.0093		0.0230		0.0340	
30.	4	Low Quality		XXX	XXX		0.0213		0.0530		0.0750	
31.	5	Lower Quality		XXX	XXX		0.0432		0.1100		0.1700	
32.	6	In or Near Default		XXX	XXX		0.0000		0.2000		0.2000	
33.		Total Derivative Instruments	79,566	XXX	XXX	79,566	XXX	32	XXX	183	XXX	239
34.		Total (Lines 9 + 17 + 25 + 33)	993,912,060	XXX	XXX	993,912,060	XXX	556,943	XXX	2,293,762	XXX	3,231,289

ASSET VALUATION RESERVE (Continued)
BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS
DEFAULT COMPONENT

Line Number	NAIC Designation	Description	1 Book/Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4 x 5)	7 Factor	8 Amount (Cols. 4 x 7)	9 Factor	10 Amount (Cols. 4 x 9)
MORTGAGE LOANS												
In Good Standing:												
35.		Farm Mortgages - CM1 - Highest Quality			XXX		0.0010		0.0050		0.0065	
36.		Farm Mortgages - CM2 - High Quality			XXX		0.0035		0.0100		0.0130	
37.		Farm Mortgages - CM3 - Medium Quality			XXX		0.0060		0.0175		0.0225	
38.		Farm Mortgages - CM4 - Low Medium Quality			XXX		0.0105		0.0300		0.0375	
39.		Farm Mortgages - CM5 - Low Quality			XXX		0.0160		0.0425		0.0550	
40.		Residential Mortgages - Insured or Guaranteed	16,479,834		XXX	16,479,834	0.0003	4,944	0.0006	9,888	0.0010	16,480
41.		Residential Mortgages - All Other			XXX		0.0013		0.0030		0.0040	
42.		Commercial Mortgages - Insured or Guaranteed			XXX		0.0003		0.0006		0.0010	
43.		Commercial Mortgages - All Other - CM1 - Highest Quality			XXX		0.0010		0.0050		0.0065	
44.		Commercial Mortgages - All Other - CM2 - High Quality			XXX		0.0035		0.0100		0.0130	
45.		Commercial Mortgages - All Other - CM3 - Medium Quality			XXX		0.0060		0.0175		0.0225	
46.		Commercial Mortgages - All Other - CM4 - Low Medium Quality			XXX		0.0105		0.0300		0.0375	
47.		Commercial Mortgages - All Other - CM5 - Low Quality			XXX		0.0160		0.0425		0.0550	
Overdue, Not in Process:												
48.		Farm Mortgages			XXX		0.0420		0.0760		0.1200	
49.		Residential Mortgages - Insured or Guaranteed			XXX		0.0005		0.0012		0.0020	
50.		Residential Mortgages - All Other			XXX		0.0025		0.0058		0.0090	
51.		Commercial Mortgages - Insured or Guaranteed			XXX		0.0005		0.0012		0.0020	
52.		Commercial Mortgages - All Other			XXX		0.0420		0.0760		0.1200	
In Process of Foreclosure:												
53.		Farm Mortgages			XXX		0.0000		0.1700		0.1700	
54.		Residential Mortgages - Insured or Guaranteed			XXX		0.0000		0.0040		0.0040	
55.		Residential Mortgages - All Other			XXX		0.0000		0.0130		0.0130	
56.		Commercial Mortgages - Insured or Guaranteed			XXX		0.0000		0.0040		0.0040	
57.		Commercial Mortgages - All Other			XXX		0.0000		0.1700		0.1700	
58.		Total Schedule B Mortgages (Sum of Lines 35 through 57)	16,479,834		XXX	16,479,834	XXX	4,944	XXX	9,888	XXX	16,480
59.		Schedule DA Mortgages			XXX		0.0030		0.0100		0.0130	
60.		Total Mortgage Loans on Real Estate (Lines 58 + 59)	16,479,834		XXX	16,479,834	XXX	4,944	XXX	9,888	XXX	16,480

Asset Valuation Reserve - Equity Component

NONE

Asset Valuation Reserve Replications (Synthetic) Assets

NONE

OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Analysis of Increase in Reserves Line 14

	1 Total	Ordinary			Group	
		2 Life Insurance	3 Individual Annuities	4 Supplementary Contracts	5 Life Insurance	6 Annuities
1404. Change in surrender charge offset	(91,854)	(86,573)	(5,281)			
1405. Change in annuitant mortality fluctuation fund	(3,265)		(3,265)			
1497. Summary of remaining write-ins for Line 14 from overflow page	(95,119)	(86,573)	(8,546)			

SCHEDULE A - VERIFICATION BETWEEN YEARS

Real Estate

1.	Book/adjusted carrying value, December 31 of prior year	
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)	
3.	Current year change in encumbrances:	
3.1	Totals, Part 1, Column 13	
3.2	Totals, Part 3, Column 11	
4.	Total gain (loss) on disposals, Part 3, Column 18	
5.	Deduct amounts received on disposals, Part 3, Column 15	
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	
8.2	Totals, Part 3, Column 9	
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)	

NONE

SCHEDULE B - VERIFICATION BETWEEN YEARS

Mortgage Loans

1.	Book value/recorded investment excluding accrued interest, December 31 of prior year	18,696,690
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)	99,832
3.	Capitalized deferred interest and other:	
3.1	Totals, Part 1, Column 12	
3.2	Totals, Part 3, Column 11	
4.	Accrual of discount	4,025
5.	Unrealized valuation increase (decrease):	
5.1	Totals, Part 1, Column 9	
5.2	Totals, Part 3, Column 8	
6.	Total gain (loss) on disposals, Part 3, Column 18	
7.	Deduct amounts received on disposals, Part 3, Column 15	2,270,182
8.	Deduct amortization of premium and mortgage interest points and commitment fees	50,530
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)	16,479,834
12.	Total valuation allowance	
13.	Subtotal (Line 11 plus 12)	16,479,834
14.	Deduct total nonadmitted amounts	
15.	Statement value of mortgages owned at end of current period (Line 13 minus Line 14)	16,479,834

SCHEDULE BA - VERIFICATION BETWEEN YEARS

Other Long-Term Invested Assets

1.	Book/adjusted carrying value, December 31 of prior year	
2.	Cost of acquired:	
2.1	Actual cost at time of acquisition (Part 2, Column 8)	
2.2	Additional investment made after acquisition (Part 2, Column 9)	
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	
5.2	Totals, Part 3, Column 9	
6.	Total gain (loss) on disposals, Part 3, Column 19	
7.	Deduct amounts received on disposals, Part 3, Column 18	
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)	
12.	Deduct total nonadmitted amounts	
13.	Statement value at end of current period (Line 11 minus Line 12)	

NONE

SCHEDULE D - VERIFICATION BETWEEN YEARS

Bonds and Stocks

1.	Book/adjusted carrying value, December 31 of prior year	3,828,287,221
2.	Cost of bonds and stocks acquired, Part 3, Column 7	1,835,882,622
3.	Accrual of discount	1,950,498
4.	Unrealized valuation increase (decrease):	
4.1.	Part 1, Column 12	(9,833,608)
4.2.	Part 2, Section 1, Column 15	
4.3.	Part 2, Section 2, Column 13	8,154,017
4.4.	Part 4, Column 11	(22,501,246)
5.	Total gain (loss) on disposals, Part 4, Column 19	6,263,847
6.	Deduction consideration for bonds and stocks disposed of, Part 4, Column 7	1,747,155,643
7.	Deduct amortization of premium	3,445,449
8.	Total foreign exchange change in book/adjusted carrying value:	
8.1.	Part 1, Column 15	
8.2.	Part 2, Section 1, Column 19	
8.3.	Part 2, Section 2, Column 16	
8.4.	Part 4, Column 15	
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)	3,897,602,259
11.	Deduct total nonadmitted amounts	
12.	Statement value at end of current period (Line 10 minus Line 11)	3,897,602,259

SCHEDULE D - SUMMARY BY COUNTRY

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

		1 Book/Adjusted Carrying Value	2 Fair Value	3 Actual Cost	4 Par Value of Bonds
BONDS	Description				
Governments (Including all obligations guaranteed by governments)	1. United States	452,087,671	453,824,556	451,169,793	442,544,823
	2. Canada	2,385,880	2,362,697	2,382,049	2,390,000
	3. Other Countries	3,848,516	3,771,750	3,856,490	3,737,100
	4. Totals	458,322,067	459,959,003	457,408,332	448,671,923
U.S. States, Territories and Possessions (Direct and guaranteed)	5. Totals	338,178	338,178	314,504	300,000
U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed)	6. Totals	140,950	143,354	137,869	105,000
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	1,410,742,370	1,414,247,156	1,400,547,398	1,362,442,895
Industrial and Miscellaneous, SVO Identified Funds and Hybrid Securities (unaffiliated)	8. United States	1,003,736,678	1,006,934,988	1,009,498,609	987,515,909
	9. Canada	19,966,791	19,977,436	19,961,094	19,953,000
	10. Other Countries	81,870,730	82,123,407	82,382,195	81,554,769
	11. Totals	1,105,574,199	1,109,035,831	1,111,841,898	1,089,023,678
Parent, Subsidiaries and Affiliates	12. Totals				
	13. Total Bonds	2,975,117,764	2,983,723,522	2,970,250,001	2,900,543,496
PREFERRED STOCKS	14. United States				
Industrial and Miscellaneous (unaffiliated)	15. Canada				
	16. Other Countries				
	17. Totals				
Parent, Subsidiaries and Affiliates	18. Totals				
	19. Total Preferred Stocks				
COMMON STOCKS	20. United States	922,484,495	922,484,495	730,884,391	
	21. Canada				
	22. Other Countries				
	23. Totals	922,484,495	922,484,495	730,884,391	
Parent, Subsidiaries and Affiliates	24. Totals				
	25. Total Common Stocks	922,484,495	922,484,495	730,884,391	
	26. Total Stocks	922,484,495	922,484,495	730,884,391	
	27. Total Bonds and Stocks	3,897,602,259	3,906,208,017	3,701,134,392	

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

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	37,011,389	37,011,389			
2. Cost of short-term investments acquired	134,755,060	134,755,060			
3. Accrual of discount	27,667	27,667			
4. Unrealized valuation increase (decrease)					
5. Total gain (loss) on disposals	27,068	27,068			
6. Deduct consideration received on disposals	95,712,528	95,712,528			
7. Deduct amortization of premium	17,763	17,763			
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)	76,090,893	76,090,893			
11. Deduct total nonadmitted amounts					
12. Statement value at end of current period (Line 10 minus Line 11)	76,090,893	76,090,893			

(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)	19,252,610
2. Cost paid/(consideration received) on additions:	
2.1 Current year paid/(consideration received) at time of acquisition, still open, Section 1, Column 12	
2.2 Current year paid/(consideration received) at time of acquisition, terminated, Section 2, Column 14	
3. Unrealized valuation increase/(decrease):	
3.1 Section 1, Column 17	2,615,396
3.2 Section 2, Column 19	(220,763)
4. Total gain (loss) on termination recognized, Section 2, Column 22	1,952,957
5. Considerations received/(paid) on terminations, Section 2, Column 15	1,952,957
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	
8.2 Section 2, Column 20	
9. Book/adjusted carrying value at end of current period (Lines 1+2+3+4-5+6+7+8)	21,647,243
10. Deduct nonadmitted assets	
11. Statement value at end of current period (Line 9 minus Line 10)	21,647,243

SCHEDULE DB - PART B - VERIFICATION

Futures Contracts

1. Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year).....	
2. Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cumulative Cash Change Column)	
3.1 Add:	
Change in variation margin on open contracts - Highly effective hedges	
3.11 Section 1, Column 15, current year minus	
3.12 Section 1, Column 15, prior year	
Change in variation margin on open contracts - All other	
3.13 Section 1, Column 18, current year minus	
3.14 Section 1, Column 18, prior year	
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 19, current year to date minus	
3.24 Section 1, Column 19, prior year	
3.3 Subtotal (Line 3.1 minus Line 3.2)	
4.1 Cumulative variation margin on terminated contracts during the year (Section 2, Column 15)	
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)	
4.3 Subtotal (Line 4.1 minus Line 4.2)	
5. Dispositions gains (losses) on contracts terminated in prior year:	
5.1 Total gain (loss) recognized for terminations in prior year	
5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year	
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)	

NONE

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

NONE

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

NONE

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.....	21,647,243
2. Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance .....	.....
3. Total (Line 1 plus Line 2)	21,647,243
4. Part D, Section 1, Column 5	21,792,571
5. Part D, Section 1, Column 6	(145,328)
6. Total (Line 3 minus Line 4 minus Line 5) .....	.....
Fair Value Check	
7. Part A, Section 1, Column 16	21,647,243
8. Part B, Section 1, Column 13 .....	.....
9. Total (Line 7 plus Line 8)	21,647,243
10. Part D, Section 1, Column 8	21,792,571
11. Part D, Section 1, Column 9	(145,328)
12. Total (Line 9 minus Line 10 minus Line 11) .....	.....
Potential Exposure Check	
13. Part A, Section 1, Column 21	8,257,006
14. Part B, Section 1, Column 20 .....	.....
15. Part D, Section 1, Column 11	8,257,006
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	333,363,085	333,363,085	
2. Cost of cash equivalents acquired	2,250,456,161	2,250,456,161	
3. Accrual of discount			
4. Unrealized valuation increase (decrease)			
5. Total gain (loss) on disposals	319,819	319,819	
6. Deduct consideration received on disposals	2,321,663,995	2,321,663,995	
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)	262,475,070	262,475,070	
11. Deduct total nonadmitted amounts			
12. Statement value at end of current period (Line 10 minus Line 11)	262,475,070	262,475,070	

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