



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2016
OF THE CONDITION AND AFFAIRS 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

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)
tpeatman@massmutual.com, 413-226-4086
(E-mail Address) (FAX Number)

OFFICERS

President and Chief Executive Officer Roger William Crandall Treasurer Todd Garrett Picken
Secretary Pia Denise Flanagan Appointed 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
President and Chief Executive Officer

Pia Denise Flanagan
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 2016 OF THE MML Bay State Life Insurance Company

ASSETS

	Current Year			Prior Year
	1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	4 Net Admitted Assets
1. Bonds (Schedule D)	310,216,806		310,216,806	222,828,946
2. Stocks (Schedule D):				
2.1 Preferred stocks				
2.2 Common stocks				
3. Mortgage loans on real estate (Schedule B):				
3.1 First liens	4,007,088		4,007,088	5,847,458
3.2 Other than first liens				
4. Real estate (Schedule A):				
4.1 Properties occupied by the company (less \$				
encumbrances)				
4.2 Properties held for the production of income (less				
\$				
encumbrances)				
4.3 Properties held for sale (less \$				
encumbrances)				
5. Cash (\$				
(2,302,765) , Schedule E - Part 1), cash equivalents				
(\$				
64,994,390 , Schedule E - Part 2) and short-term				
investments (\$				
, Schedule DA)	62,691,625		62,691,625	61,289,428
6. Contract loans (including \$				
premium notes)	95,147,773		95,147,773	95,606,516
7. Derivatives (Schedule DB)				
8. Other invested assets (Schedule BA)				
9. Receivables for securities				
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)	472,063,292		472,063,292	385,572,348
13. Title plants less \$				
charged off (for Title insurers				
only)				
14. Investment income due and accrued	4,360,917	1,760	4,359,157	4,042,982
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection	1,150	477	673	1,850
15.2 Deferred premiums and agents' balances and installments booked but				
deferred and not yet due (including \$				
earned but unbilled premiums)	(2,080,053)		(2,080,053)	(2,124,980)
15.3 Accrued retrospective premiums (\$				
) and				
contracts subject to redetermination (\$				
)				
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers	2,911,681		2,911,681	5,325,462
16.2 Funds held by or deposited with reinsured companies				
16.3 Other amounts receivable under reinsurance contracts	18,471,759		18,471,759	21,108,963
17. Amounts receivable relating to uninsured plans				
18.1 Current federal and foreign income tax recoverable and interest thereon				3,088,375
18.2 Net deferred tax asset	19,917,904	13,733,302	6,184,602	3,746,941
19. Guaranty funds receivable or on deposit	198,623		198,623	214,116
20. Electronic data processing equipment and software				
21. Furniture and equipment, including health care delivery assets				
(\$				
)				
22. Net adjustment in assets and liabilities due to foreign exchange rates				
23. Receivables from parent, subsidiaries and affiliates	125,904		125,904	281,646
24. Health care (\$				
) and other amounts receivable				
25. Aggregate write-ins for other than invested assets				
26. Total assets excluding Separate Accounts, Segregated Accounts and				
Protected Cell Accounts (Lines 12 to 25)	515,971,177	13,735,539	502,235,638	421,257,703
27. From Separate Accounts, Segregated Accounts and Protected Cell				
Accounts	4,312,051,379		4,312,051,379	4,278,818,122
28. Total (Lines 26 and 27)	4,828,022,556	13,735,539	4,814,287,017	4,700,075,825
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)				
2501.				
2502.				
2503.				
2598. Summary of remaining write-ins for Line 25 from overflow page				
2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above)				

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

LIABILITIES, SURPLUS AND OTHER FUNDS

	1 Current Year	2 Prior Year
1. Aggregate reserve for life contracts \$ 138,538,127 (Exh. 5, Line 9999999) less \$ included in Line 6.3 (including \$122,016,560 Modco Reserve)	138,538,127	136,618,028
2. Aggregate reserve for accident and health contracts (including \$ Modco Reserve)	11,548,399	9,891,826
3. Liability for deposit-type contracts (Exhibit 7, Line 14, Col. 1) (including \$ Modco Reserve)		
4. Contract claims:		
4.1 Life (Exhibit 8, Part 1, Line 4.4, Col. 1 less sum of Cols. 9, 10 and 11)	3,824,460	6,741,511
4.2 Accident and health (Exhibit 8, Part 1, Line 4.4, sum of Cols. 9, 10 and 11)		
5. Policyholders' dividends \$ and coupons \$ due and unpaid (Exhibit 4, Line 10)		
6. Provision for policyholders' dividends and coupons payable in following calendar year - estimated amounts:		
6.1 Dividends apportioned for payment (including \$ Modco)		
6.2 Dividends not yet apportioned (including \$ Modco)		
6.3 Coupons and similar benefits (including \$ Modco)		
7. Amount provisionally held for deferred dividend policies not included in Line 6		
8. Premiums and annuity considerations for life and accident and health contracts received in advance less \$ discount; including \$ accident and health premiums (Exhibit 1, Part 1, Col. 1, sum of lines 4 and 14)	2,438	2,383
9. Contract liabilities not included elsewhere:		
9.1 Surrender values on canceled contracts		
9.2 Provision for experience rating refunds, including the liability of \$ accident and health experience rating refunds of which \$ is for medical loss ratio rebate per the Public Health Service Act	14,578,631	11,172,256
9.3 Other amounts payable on reinsurance, including \$ assumed and \$ (3,421,656) ceded	(3,421,656)	798,473
9.4 Interest maintenance reserve (IMR, Line 6)	289,594	365,578
10. Commissions to agents due or accrued-life and annuity contracts \$ 267,320 accident and health \$ and deposit-type contract funds \$	267,320	66,652
11. Commissions and expense allowances payable on reinsurance assumed		
12. General expenses due or accrued (Exhibit 2, Line 12, Col. 6)	11,640	399,844
13. Transfers to Separate Accounts due or accrued (net) (including \$ (577,737) accrued for expense allowances recognized in reserves, net of reinsured allowances)	15,996,642	16,533,168
14. Taxes, licenses and fees due or accrued, excluding federal income taxes (Exhibit 3, Line 9, Col. 5)	199,460	234,258
15.1 Current federal and foreign income taxes, including \$ (7,233,540) on realized capital gains (losses)	18,697,891	
15.2 Net deferred tax liability		
16. Unearned investment income		
17. Amounts withheld or retained by company as agent or trustee	16,675	16,902
18. Amounts held for agents' account, including \$ agents' credit balances		
19. Remittances and items not allocated	5,895,429	(275,038)
20. Net adjustment in assets and liabilities due to foreign exchange rates		
21. Liability for benefits for employees and agents if not included above		
22. Borrowed money \$ and interest thereon \$		
23. Dividends to stockholders declared and unpaid		
24. Miscellaneous liabilities:		
24.01 Asset valuation reserve (AVR, Line 16, Col. 7)	4,997,495	4,666,310
24.02 Reinsurance in unauthorized and certified (\$) companies		
24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers		
24.04 Payable to parent, subsidiaries and affiliates	2,310,794	2,208,982
24.05 Drafts outstanding		
24.06 Liability for amounts held under uninsured plans		
24.07 Funds held under coinsurance		
24.08 Derivatives		
24.09 Payable for securities		
24.10 Payable for securities lending		
24.11 Capital notes \$ and interest thereon \$		
25. Aggregate write-ins for liabilities	187,860	515,565
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25)	213,941,199	189,956,698
27. From Separate Accounts Statement	4,312,051,379	4,278,818,122
28. Total liabilities (Lines 26 and 27)	4,525,992,578	4,468,774,820
29. Common capital stock	2,500,200	2,500,200
30. Preferred capital stock		
31. Aggregate write-ins for other than special surplus funds		
32. Surplus notes		
33. Gross paid in and contributed surplus (Page 3, Line 33, Col. 2 plus Page 4, Line 51.1, Col. 1)	143,736,914	143,736,914
34. Aggregate write-ins for special surplus funds		
35. Unassigned funds (surplus)	142,057,325	85,063,891
36. Less treasury stock, at cost:		
36.1 shares common (value included in Line 29 \$)		
36.2 shares preferred (value included in Line 30 \$)		
37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement)	285,794,239	228,800,805
38. Totals of Lines 29, 30 and 37 (Page 4, Line 55)	288,294,439	231,301,005
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	4,814,287,017	4,700,075,825
DETAILS OF WRITE-INS		
2501. Miscellaneous liabilities	140,262	297,428
2502. Funds awaiting escheat	47,598	218,137
2503.		
2598. Summary of remaining write-ins for Line 25 from overflow page		
2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above)	187,860	515,565
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)		
3401.		
3402.		
3403.		
3498. Summary of remaining write-ins for Line 34 from overflow page		
3499. Totals (Lines 3401 thru 3403 plus 3498)(Line 34 above)		

SUMMARY OF OPERATIONS

	1 Current Year	2 Prior Year
1. Premiums and annuity considerations for life and accident and health contracts (Exhibit 1, Part 1, Line 20.4, Col. 1, less Col. 11)	(105,853,696)	24,468,709
2. Considerations for supplementary contracts with life contingencies	65,136	
3. Net investment income (Exhibit of Net Investment Income, Line 17)	14,288,275	12,852,135
4. Amortization of Interest Maintenance Reserve (IMR, Line 5)	188,040	197,060
5. Separate Accounts net gain from operations excluding unrealized gains or losses		
6. Commissions and expense allowances on reinsurance ceded (Exhibit 1, Part 2, Line 26.1, Col. 1)	61,254,601	5,631,952
7. Reserve adjustments on reinsurance ceded	112,685,751	(15,069,413)
8. Miscellaneous Income:		
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	71,495,125	70,035,625
8.2 Charges and fees for deposit-type contracts		
8.3 Aggregate write-ins for miscellaneous income	(761,293)	(932,285)
9. Total (Lines 1 to 8.3)	153,361,939	97,183,783
10. Death benefits	40,748,262	46,519,558
11. Matured endowments (excluding guaranteed annual pure endowments)		
12. Annuity benefits (Exhibit 8, Part 2, Line 6.4, Cols. 4 + 8)	3,111,803	918,837
13. Disability benefits and benefits under accident and health contracts	364,151	479,467
14. Coupons, guaranteed annual pure endowments and similar benefits		
15. Surrender benefits and withdrawals for life contracts	49,389,269	48,806,554
16. Group conversions		
17. Interest and adjustments on contract or deposit-type contract funds	1,096,059	702,273
18. Payments on supplementary contracts with life contingencies		
19. Increase in aggregate reserves for life and accident and health contracts	1,920,099	4,945,662
20. Totals (Lines 10 to 19)	96,629,643	102,372,351
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only) (Exhibit 1, Part 2, Line 31, Col. 1)	2,935,769	3,399,662
22. Commissions and expense allowances on reinsurance assumed (Exhibit 1, Part 2, Line 26.2, Col. 1)		
23. General insurance expenses (Exhibit 2, Line 10, Cols. 1, 2, 3 and 4)	7,955,012	8,068,586
24. Insurance taxes, licenses and fees, excluding federal income taxes (Exhibit 3, Line 7, Cols. 1 + 2 + 3)	990,162	1,118,136
25. Increase in loading on deferred and uncollected premiums	(792)	(556)
26. Net transfers to or (from) Separate Accounts net of reinsurance	(35,570,149)	(45,187,681)
27. Aggregate write-ins for deductions	34,553,217	62,351
28. Totals (Lines 20 to 27)	107,492,862	69,832,849
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	45,869,077	27,350,934
30. Dividends to policyholders		
31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30)	45,869,077	27,350,934
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	25,634,294	6,658,379
33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32)	20,234,783	20,692,555
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$40,459 (excluding taxes of \$60,338 transferred to the IMR)	20,356	(35,042)
35. Net income (Line 33 plus Line 34)	20,255,139	20,657,513
CAPITAL AND SURPLUS ACCOUNT		
36. Capital and surplus, December 31, prior year (Page 3, Line 38, Col. 2)	231,301,005	211,693,698
37. Net income (Line 35)	20,255,139	20,657,513
38. Change in net unrealized capital gains (losses) less capital gains tax of \$(10,350)	(19,222)	
39. Change in net unrealized foreign exchange capital gain (loss)		
40. Change in net deferred income tax	12,313,003	(1,309,067)
41. Change in nonadmitted assets	(9,887,929)	601,456
42. Change in liability for reinsurance in unauthorized and certified companies		
43. Change in reserve on account of change in valuation basis, (increase) or decrease		
44. Change in asset valuation reserve	(331,185)	(342,595)
45. Change in treasury stock (Page 3, Lines 36.1 and 36.2, Col. 2 minus Col. 1)		
46. Surplus (contributed to) withdrawn from Separate Accounts during period		
47. Other changes in surplus in Separate Accounts Statement		
48. Change in surplus notes		
49. Cumulative effect of changes in accounting principles		
50. Capital changes:		
50.1 Paid in		
50.2 Transferred from surplus (Stock Dividend)		
50.3 Transferred to surplus		
51. Surplus adjustment:		
51.1 Paid in		
51.2 Transferred to capital (Stock Dividend)		
51.3 Transferred from capital		
51.4 Change in surplus as a result of reinsurance		
52. Dividends to stockholders		
53. Aggregate write-ins for gains and losses in surplus	34,663,629	
54. Net change in capital and surplus for the year (Lines 37 through 53)	56,993,434	19,607,307
55. Capital and surplus, December 31, current year (Lines 36 + 54) (Page 3, Line 38)	288,294,439	231,301,005
DETAILS OF WRITE-INS		
08.301. Sub-advisory fees	(1,744,328)	(1,540,537)
08.302. Other miscellaneous income	983,035	608,252
08.303.		
08.398. Summary of remaining write-ins for Line 8.3 from overflow page		
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398)(Line 8.3 above)	(761,293)	(932,285)
2701. Reinsurance ceded adjustment	34,663,629	
2702. Miscellaneous charges to operations	(110,412)	62,351
2703.		
2798. Summary of remaining write-ins for Line 27 from overflow page		
2799. Totals (Lines 2701 thru 2703 plus 2798)(Line 27 above)	34,553,217	62,351
5301. Reinsurance ceded adjustment	34,663,629	
5302.		
5303.		
5398. Summary of remaining write-ins for Line 53 from overflow page		
5399. Totals (Lines 5301 thru 5303 plus 5398)(Line 53 above)	34,663,629	

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

CASH FLOW

	1	2
	Current Year	Prior Year
Cash from Operations		
1. Premiums collected net of reinsurance	(102,483,538)	22,222,478
2. Net investment income	13,981,424	12,057,377
3. Miscellaneous income	243,146,856	58,356,708
4. Total (Lines 1 through 3)	154,644,742	92,636,563
5. Benefit and loss related payments	95,172,234	92,108,978
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(35,033,623)	(45,157,205)
7. Commissions, expenses paid and aggregate write-ins for deductions	11,832,105	13,204,996
8. Dividends paid to policyholders		
9. Federal and foreign income taxes paid (recovered) net of \$1,005,085 tax on capital gains (losses)	3,948,825	4,335,481
10. Total (Lines 5 through 9)	75,919,541	64,492,250
11. Net cash from operations (Line 4 minus Line 10)	78,725,201	28,144,313
Cash from Investments		
12. Proceeds from investments sold, matured or repaid:		
12.1 Bonds	47,823,746	26,695,569
12.2 Stocks		
12.3 Mortgage loans	1,832,747	711,572
12.4 Real estate		
12.5 Other invested assets		
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	(156)	155
12.7 Miscellaneous proceeds	124,096	499,607
12.8 Total investment proceeds (Lines 12.1 to 12.7)	49,780,433	27,906,903
13. Cost of investments acquired (long-term only):		
13.1 Bonds	135,100,254	104,592,416
13.2 Stocks		
13.3 Mortgage loans	2,992	2,394,997
13.4 Real estate		
13.5 Other invested assets		
13.6 Miscellaneous applications		
13.7 Total investments acquired (Lines 13.1 to 13.6)	135,103,246	106,987,413
14. Net increase (decrease) in contract loans and premium notes	(458,743)	1,586,260
15. Net cash from investments (Line 12.8 minus Line 13.7 minus Line 14)	(84,864,070)	(80,666,770)
Cash from Financing and Miscellaneous Sources		
16. Cash provided (applied):		
16.1 Surplus notes, capital notes		
16.2 Capital and paid in surplus, less treasury stock		
16.3 Borrowed funds		
16.4 Net deposits on deposit-type contracts and other insurance liabilities	1,386,252	3,385,215
16.5 Dividends to stockholders		
16.6 Other cash provided (applied)	6,154,814	(309,725)
17. Net cash from financing and miscellaneous sources (Lines 16.1 to 16.4 minus Line 16.5 plus Line 16.6)	7,541,066	3,075,490
RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS		
18. Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17)	1,402,197	(49,446,967)
19. Cash, cash equivalents and short-term investments:		
19.1 Beginning of year	61,289,428	110,736,395
19.2 End of year (Line 18 plus Line 19.1)	62,691,625	61,289,428

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

20.0001. Bond conversions and refinancing	942,855	1,717,983
20.0002. Interest capitalization for long-term debt	312	2,091

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
ANALYSIS OF OPERATIONS BY LINES OF BUSINESS

	1 Total	2 Industrial Life	Ordinary			6 Credit Life (Group and Individual)	Group		Accident and Health		12 Aggregate of All Other Lines of Business
			3 Life Insurance	4 Individual Annuities	5 Supplementary Contracts		7 Life Insurance (a)	8 Annuities	9 Group	10 Credit (Group and Individual)	
1. Premiums and annuity considerations for life and accident and health contracts	(105,853,696)		(102,342,667)	21,760			(3,532,789)				
2. Considerations for supplementary contracts with life contingencies	65,136				65,136						
3. Net investment income	14,288,275		12,935,776	71,499	50,057		1,230,943				
4. Amortization of Interest Maintenance Reserve (IMR)	188,040		160,345	1,464	1,025		25,206				
5. Separate Accounts net gain from operations excluding unrealized gains or losses											
6. Commissions and expense allowances on reinsurance ceded	61,254,601		55,515,873				5,738,728				
7. Reserve adjustments on reinsurance ceded	112,685,751		122,016,560				(9,330,809)				
8. Miscellaneous Income:											
8.1 Fees associated with income from investment management, administration and contract guarantees from Separate Accounts	71,495,125		39,600,002	617,347			31,277,776				
8.2 Charges and fees for deposit-type contracts											
8.3 Aggregate write-ins for miscellaneous income	(761,293)		873,810	109,229			(1,744,332)				
9. Totals (Lines 1 to 8.3)	153,361,939		128,759,699	821,299	116,218		23,664,723				
10. Death benefits	40,748,262		14,303,944				26,444,318				
11. Matured endowments (excluding guaranteed annual pure endowments)											
12. Annuity benefits	3,111,803			3,111,803							
13. Disability benefits and benefits under accident and health contracts	364,151		364,151								
14. Coupons, guaranteed annual pure endowments and similar benefits											
15. Surrender benefits and withdrawals for life contracts	49,389,269		44,781,383	3,882,211			725,675				
16. Group conversions											
17. Interest and adjustments on contract or deposit-type contract funds	1,096,059		69,991	8,586	270,321		747,161				
18. Payments on supplementary contracts with life contingencies											
19. Increase in aggregate reserves for life and accident and health contracts	1,920,099		1,778,200	111,306			30,593				
20. Totals (Lines 10 to 19)	96,629,643		61,297,669	7,113,906	270,321		27,947,747				
21. Commissions on premiums, annuity considerations and deposit-type contract funds (direct business only)	2,935,769		1,698,273	44,566			1,192,930				
22. Commissions and expense allowances on reinsurance assumed											
23. General insurance expenses	7,955,012		3,765,784	184,517	663		4,004,048				
24. Insurance taxes, licenses and fees, excluding federal income taxes	990,162		890,900	6,838	25		92,399				
25. Increase in loading on deferred and uncollected premiums	(792)		(792)								
26. Net transfers to or (from) Separate Accounts net of reinsurance	(35,570,149)		(13,076,447)	(7,669,564)			(14,824,138)				
27. Aggregate write-ins for deductions	34,553,217		34,332,674	212,711			7,832				
28. Totals (Lines 20 to 27)	107,492,862		88,908,061	(107,026)	271,009		18,420,818				
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	45,869,077		39,851,638	928,325	(154,791)		5,243,905				
30. Dividends to policyholders											
31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30)	45,869,077		39,851,638	928,325	(154,791)		5,243,905				
32. Federal income taxes incurred (excluding tax on capital gains)	25,634,294		24,595,078	278,728	(53,643)		814,131				
33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32)	20,234,783		15,256,560	649,597	(101,148)		4,429,774				
DETAILS OF WRITE-INS											
08.301. Sub-advisory fees	(1,744,328)						(1,744,328)				
08.302. Other miscellaneous income	983,035		873,810	109,229			(4)				
08.303.											
08.398. Summary of remaining write-ins for Line 8.3 from overflow page											
08.399. Totals (Lines 08.301 thru 08.303 plus 08.398) (Line 8.3 above)	(761,293)		873,810	109,229			(1,744,332)				
2701. Reinsurance ceded adjustment	34,663,629		34,663,629								
2702. Miscellaneous charges to operations	(110,412)		(330,955)	212,711			7,832				
2703.											
2798. Summary of remaining write-ins for Line 27 from overflow page											
2799. Totals (Lines 2701 thru 2703 plus 2798) (Line 27 above)	34,553,217		34,332,674	212,711			7,832				

(a) Includes the following amounts for FEGLI/SGLI: Line 1, Line 10, Line 16, Line 23, Line 24

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR

	1 Total	2 Industrial Life	Ordinary			6 Credit Life (Group and Individual)	Group	
			3 Life Insurance	4 Individual Annuities	5 Supplementary Contracts		7 Life Insurance	8 Annuities
Involving Life or Disability Contingencies (Reserves)								
(Net of Reinsurance Ceded)								
1. Reserve December 31, prior year	136,618,028		131,596,401	3,632,420			1,389,207	
2. Tabular net premiums or considerations	16,161,303		19,673,893	21,760			(3,534,350)	
3. Present value of disability claims incurred					XXX			
4. Tabular interest	5,159,843		5,068,350	91,493				
5. Tabular less actual reserve released	(1,112,648)			(1,112,648)				
6. Increase in reserve on account of change in valuation basis								
7. Other increases (net)	11,248,118		1,564,246	(84,376)			9,768,248	
8. Totals (Lines 1 to 7)	168,074,644		157,902,890	2,548,649			7,623,105	
9. Tabular cost	39,504,103		19,052,420		XXX		20,451,683	
10. Reserves released by death	24,244,393		3,792,157	XXX	XXX		20,452,236	XXX
11. Reserves released by other terminations (net)	47,714,997		43,103,745	3,885,577			725,675	
12. Annuity, supplementary contract and disability payments involving life contingencies	2,958,343		364,151	2,594,192				
13. Net transfers to or (from) Separate Accounts	(84,885,319)		(41,784,184)	(7,674,845)			(35,426,290)	
14. Total Deductions (Lines 9 to 13)	29,536,517		24,528,289	(1,195,076)			6,203,304	
15. Reserve December 31, current year	138,538,127		133,374,601	3,743,725			1,419,801	

ANNUAL STATEMENT FOR THE YEAR 2016 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) 697,072	..... 745,182
1.1 Bonds exempt from U.S. tax	(a) .....	.....
1.2 Other bonds (unaffiliated)	(a) 8,144,738	..... 8,413,618
1.3 Bonds of affiliates	(a) 46,501	..... 57,811
2.1 Preferred stocks (unaffiliated)	(b) .....	.....
2.11 Preferred stocks of affiliates	(b) .....	.....
2.2 Common stocks (unaffiliated) .....	.....	.....
2.21 Common stocks of affiliates .....	.....	.....
3. Mortgage loans	(c) 234,289	..... 244,326
4. Real estate	(d) .....	.....
5. Contract loans .....	..... 5,125,623	..... 5,105,220
6. Cash, cash equivalents and short-term investments	(e) 355,696	..... 355,696
7. Derivative instruments	(f) .....	.....
8. Other invested assets .....	.....	.....
9. Aggregate write-ins for investment income .....	..... 558	..... 558
10. Total gross investment income	14,604,477	14,922,411
11. Investment expenses .....	.....	(g) 631,937
12. Investment taxes, licenses and fees, excluding federal income taxes .....	.....	(g) 2,199
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) .....	.....	..... 634,136
17. Net investment income (Line 10 minus Line 16) .....	.....	14,288,275
DETAILS OF WRITE-INS		
0901. Miscellaneous income .....	..... 558	..... 558
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)	558	558
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 \$498,623 accrual of discount less \$477,316 amortization of premium and less \$159,028 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 \$1,411 accrual of discount less \$12,026 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 \$352,973 accrual of discount less \$ amortization of premium and less \$ 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	7,752	.....	7,752	.....	.....
1.1 Bonds exempt from U.S. tax .....	.....	.....	.....	.....	.....
1.2 Other bonds (unaffiliated)	120,663	(2,661)	118,002	(467)	.....
1.3 Bonds of affiliates .....	.....	(6,452)	(6,452)	(29,106)	.....
2.1 Preferred stocks (unaffiliated) .....	.....	.....	.....	.....	.....
2.11 Preferred stocks of affiliates .....	.....	.....	.....	.....	.....
2.2 Common stocks (unaffiliated) .....	.....	.....	.....	.....	.....
2.21 Common stocks of affiliates .....	.....	.....	.....	.....	.....
3. Mortgage loans .....	.....	.....	.....	.....	.....
4. Real estate .....	.....	.....	.....	.....	.....
5. Contract loans .....	.....	.....	.....	.....	.....
6. Cash, cash equivalents and short-term investments	(156)	.....	(156)	.....	.....
7. Derivative instruments .....	.....	.....	.....	.....	.....
8. Other invested assets .....	.....	.....	.....	.....	.....
9. Aggregate write-ins for capital gains (losses)	114,063	.....	114,063	.....	.....
10. Total capital gains (losses)	242,322	(9,113)	233,209	(29,573)	.....
DETAILS OF WRITE-INS					
0901. Miscellaneous gain and loss	114,063	.....	114,063	.....	.....
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)	114,063	.....	114,063	.....	.....

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

EXHIBIT - 1 PART 1 - PREMIUMS AND ANNUITY CONSIDERATIONS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

	1 Total	2 Industrial Life	Ordinary		5 Credit Life (Group and Individual)	Group		Accident and Health			11 Aggregate of All Other Lines of Business
			3 Life Insurance	4 Individual Annuities		6 Life Insurance	7 Annuities	8 Group	9 Credit (Group and Individual)	10 Other	
FIRST YEAR (other than single)											
1. Uncollected											
2. Deferred and accrued											
3. Deferred, accrued and uncollected:											
3.1 Direct											
3.2 Reinsurance assumed											
3.3 Reinsurance ceded											
3.4 Net (Line 1 + Line 2)											
4. Advance											
5. Line 3.4 - Line 4											
6. Collected during year:											
6.1 Direct	167		167								
6.2 Reinsurance assumed											
6.3 Reinsurance ceded	547		547								
6.4 Net	(381)		(381)								
7. Line 5 + Line 6.4	(381)		(381)								
8. Prior year (uncollected + deferred and accrued - advance)											
9. First year premiums and considerations:											
9.1 Direct	167		167								
9.2 Reinsurance assumed											
9.3 Reinsurance ceded	547		547								
9.4 Net (Line 7 - Line 8)	(381)		(381)								
SINGLE											
10. Single premiums and considerations:											
10.1 Direct											
10.2 Reinsurance assumed											
10.3 Reinsurance ceded											
10.4 Net											
RENEWAL											
11. Uncollected	1,243		1,243								
12. Deferred and accrued	(15,097,994)		(1,860,067)			(13,237,926)					
13. Deferred, accrued and uncollected:											
13.1 Direct	(14,485,885)		92,745			(14,578,631)					
13.2 Reinsurance assumed											
13.3 Reinsurance ceded	610,865		1,951,569			(1,340,704)					
13.4 Net (Line 11 + Line 12)	(15,096,751)		(1,858,824)			(13,237,926)					
14. Advance	2,438		2,438								
15. Line 13.4 - Line 14	(15,099,188)		(1,861,262)			(13,237,926)					
16. Collected during year:											
16.1 Direct	37,449,317		37,393,629	21,760		33,927					
16.2 Reinsurance assumed											
16.3 Reinsurance ceded	139,932,474		139,761,668			170,806					
16.4 Net	(102,483,157)		(102,368,039)	21,760		(136,879)					
17. Line 15 + Line 16.4	(117,582,346)		(104,229,301)	21,760		(13,374,805)					
18. Prior year (uncollected + deferred and accrued - advance)	(11,729,030)		(1,887,014)			(9,842,016)					
19. Renewal premiums and considerations:											
19.1 Direct	34,038,522		37,389,210	21,760		(3,372,447)					
19.2 Reinsurance assumed											
19.3 Reinsurance ceded	139,891,838		139,731,496			160,342					
19.4 Net (Line 17 - Line 18)	(105,853,315)		(102,342,286)	21,760		(3,532,789)					
TOTAL											
20. Total premiums and annuity considerations:											
20.1 Direct	34,038,689		37,389,376	21,760		(3,372,447)					
20.2 Reinsurance assumed											
20.3 Reinsurance ceded	139,892,385		139,732,043			160,342					
20.4 Net (Lines 9.4 + 10.4 + 19.4)	(105,853,696)		(102,342,667)	21,760		(3,532,789)					

EXHIBIT - 1 PART 2 - DIVIDENDS AND COUPONS APPLIED, REINSURANCE COMMISSIONS AND EXPENSE ALLOWANCES AND COMMISSIONS INCURRED (Direct Business Only)

	1 Total	2 Industrial Life	Ordinary		5 Credit Life (Group and Individual)	Group		Accident and Health			11 Aggregate of All Other Lines of Business
			3 Life Insurance	4 Individual Annuities		6 Life Insurance	7 Annuities	8 Group	9 Credit (Group and Individual)	10 Other	
DIVIDENDS AND COUPONS APPLIED (included in Part 1)											
21. To pay renewal premiums											
22. All other											
REINSURANCE COMMISSIONS AND EXPENSE ALLOWANCES INCURRED											
23. First year (other than single):											
23.1 Reinsurance ceded											
23.2 Reinsurance assumed											
23.3 Net ceded less assumed											
24. Single:											
24.1 Reinsurance ceded											
24.2 Reinsurance assumed											
24.3 Net ceded less assumed											
25. Renewal:											
25.1 Reinsurance ceded	61,254,601		55,515,873			5,738,728					
25.2 Reinsurance assumed											
25.3 Net ceded less assumed	61,254,601		55,515,873			5,738,728					
26. Totals:											
26.1 Reinsurance ceded (Page 6, Line 6)	61,254,601		55,515,873			5,738,728					
26.2 Reinsurance assumed (Page 6, Line 22)											
26.3 Net ceded less assumed	61,254,601		55,515,873			5,738,728					
COMMISSIONS INCURRED (direct business only)											
27. First year (other than single)	(2,906)		(2,906)								
28. Single											
29. Renewal	2,938,674		1,701,179	44,566		1,192,930					
30. Deposit-type contract funds											
31. Totals (to agree with Page 6, Line 21)	2,935,769		1,698,273	44,566		1,192,930					

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

EXHIBIT 2 - GENERAL EXPENSES

	Insurance				5 Investment	6 Total
	1 Life	2 Accident and Health		4 All Other Lines of Business		
		2 Cost Containment	3 All Other			
1. Rent	317,442				3,062	320,504
2. Salaries and wages	3,205,739				30,924	3,236,663
3.11 Contributions for benefit plans for employees	580,952				5,604	586,556
3.12 Contributions for benefit plans for agents	302,071				2,914	304,985
3.21 Payments to employees under non-funded benefit plans						
3.22 Payments to agents under non-funded benefit plans						
3.31 Other employee welfare	28,238				272	28,510
3.32 Other agent welfare						
4.1 Legal fees and expenses	95,950				926	96,876
4.2 Medical examination fees	52,669				508	53,177
4.3 Inspection report fees	(328)				(3)	(331)
4.4 Fees of public accountants and consulting actuaries	17,830				172	18,002
4.5 Expense of investigation and settlement of policy claims	10,618				102	10,720
5.1 Traveling expenses	98,304				948	99,252
5.2 Advertising	85,295				823	86,118
5.3 Postage, express, telegraph and telephone	122,783				1,184	123,967
5.4 Printing and stationery	82,816				799	83,615
5.5 Cost or depreciation of furniture and equipment	100,266				967	101,233
5.6 Rental of equipment	154,771				1,493	156,264
5.7 Cost or depreciation of EDP equipment and software	28,659				276	28,935
6.1 Books and periodicals	14,931				144	15,075
6.2 Bureau and association fees	18,735				181	18,916
6.3 Insurance, except on real estate	29,402				284	29,686
6.4 Miscellaneous losses	54,458				525	54,983
6.5 Collection and bank service charges	21,801				210	22,011
6.6 Sundry general expenses	7,906				76	7,982
6.7 Group service and administration fees	714,786				6,895	721,681
6.8 Reimbursements by uninsured plans						
7.1 Agency expense allowance	1,003,402				9,679	1,013,081
7.2 Agents' balances charged off (less \$ recovered)						
7.3 Agency conferences other than local meetings	83,064				801	83,865
9.1 Real estate expenses						
9.2 Investment expenses not included elsewhere					561,621	561,621
9.3 Aggregate write-ins for expenses	722,452				550	723,002
10. General expenses incurred	7,955,012				631,937 (a)	8,586,949
11. General expenses unpaid December 31, prior year	2,426,507				180,708	2,607,215
12. General expenses unpaid December 31, current year	2,150,028				170,796	2,320,824
13. Amounts receivable relating to uninsured plans, prior year						
14. Amounts receivable relating to uninsured plans, current year						
15. General expenses paid during year (Lines 10+11-12-13+14)	8,231,491				641,849	8,873,340
DETAILS OF WRITE-INS						
09.301. Miscellaneous	56,636				550	57,186
09.302. Management services income	665,816					665,816
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)	722,452				550	723,002

(a) Includes management fees of \$ 7,921,133 to affiliates and \$ to non-affiliates.

EXHIBIT 3 - TAXES, LICENSES AND FEES (EXCLUDING FEDERAL INCOME TAXES)

	Insurance			4 Investment	5 Total
	1 Life	2 Accident and Health	3 All Other Lines of Business		
1. Real estate taxes					
2. State insurance department licenses and fees	99,177				99,177
3. State taxes on premiums	510,155				510,155
4. Other state taxes, including \$ for employee benefits	95,909				95,909
5. U.S. Social Security taxes	284,922			2,199	287,121
6. All other taxes					
7. Taxes, licenses and fees incurred	990,163			2,199	992,362
8. Taxes, licenses and fees unpaid December 31, prior year	233,822			437	234,258
9. Taxes, licenses and fees unpaid December 31, current year	199,018			442	199,460
10. Taxes, licenses and fees paid during year (Lines 7 + 8 - 9)	1,024,967			2,194	1,027,160

EXHIBIT 4 - DIVIDENDS OR REFUNDS

	1 Life	2 Accident and Health
	1. Applied to pay renewal premiums	
2. Applied to shorten the endowment or premium-paying period		
3. Applied to provide paid-up additions		
4. Applied to provide paid-up annuities		
5. Total Lines 1 through 4		
6. Paid in cash		
7. Left on deposit		
8. Aggregate write-ins for dividend or refund options		
9. Total Lines 5 through 8		
10. Amount due and unpaid		
11. Provision for dividends or refunds payable in the following calendar year		
12. Terminal dividends		
13. Provision for deferred dividend contracts		
14. Amount provisionally held for deferred dividend contracts included on Line 13		
15. Total Lines 10 through 14		
16. Total from prior year		
17. Total dividends or refunds (Lines 9 + 15 - 16)		
DETAILS OF WRITE-INS		
0801.		
0802.		
0803.		
0898. Summary of remaining write-ins for Line 8 from overflow page		
0899. Totals (Lines 0801 thru 0803 plus 0898) (Line 8 above)		

NONE

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
EXHIBIT 5 - AGGREGATE RESERVE FOR LIFE CONTRACTS

1	2	3	4	5	6
Valuation Standard	Total	Industrial	Ordinary	Credit (Group and Individual)	Group
0100001. 58 CET 4.00% NLP	629,010		629,010		
0100002. 58 CSO 4.00% MOD CRVM	47,157		47,157		
0100003. 58 CSO 4.50% CRVM	6,671		6,671		
0100004. 80 CSO 3.00%	1,450,000				1,450,000
0100005. 80 CSO 4.00%	4,983				4,983
0100006. 80 CSO 4.50% CRVM	84,102,259		84,102,259		
0100007. 80 CSO 5.50% CRVM	60,933,495		60,933,495		
0199997. Totals (Gross)	147,173,575		145,718,592		1,454,983
0199998. Reinsurance ceded	23,083,482		23,048,300		35,182
0199999. Life Insurance: Totals (Net)	124,090,093		122,670,292		1,419,801
0200001. 1994 MGDB Table 1Y/FIG	2,140,128	XXX	2,140,128	XXX	
0200002. a-2000 4.00%	12,223	XXX	12,223	XXX	
0200003. a-2000 4.25%	39,684	XXX	39,684	XXX	
0200004. a-2000 4.50%	3,793	XXX	3,793	XXX	
0200005. a-2000 5.00%	827	XXX	827	XXX	
0200006. a-2000 5.50%	93,253	XXX	93,253	XXX	
0200007. a-2012 4.00%	532,165	XXX	532,165	XXX	
0299997. Totals (Gross)	2,822,073	XXX	2,822,073	XXX	
0299998. Reinsurance ceded		XXX		XXX	
0299999. Annuities: Totals (Net)	2,822,073	XXX	2,822,073	XXX	
0399998. Reinsurance ceded					
0399999. SCWLC: Totals (Net)					
0400001. 59 ADB + 58 CSO 4.50%	1,695		1,695		
0400002. 59 ADB + 58 CSO 5.50%	324		324		
0499997. Totals (Gross)	2,019		2,019		
0499998. Reinsurance ceded					
0499999. Accidental Death Benefits: Totals (Net)	2,019		2,019		
0500001. 120% 52 INTERCO DISA 4.50%	41,056		41,056		
0500002. 120% 52 INTERCO DISA 5.50%	9,898		9,898		
0500003. 35-39 INTERCO + 58 CSO 3.50%	9,124		9,124		
0599997. Totals (Gross)	60,078		60,078		
0599998. Reinsurance ceded					
0599999. Disability-Active Lives: Totals (Net)	60,078		60,078		
0600001. 52 DISAB TABLE BEN 5 3.50%	18,886		18,886		
0600002. 52 DISAB TABLE BEN 5 4.00%	275,107		275,107		
0600003. 52 DISAB TABLE BEN 5 4.50%	5,506,893		5,506,893		
0600004. 52 DISAB TABLE BEN 5 5.50%	2,541,199		2,541,199		
0699997. Totals (Gross)	8,342,085		8,342,085		
0699998. Reinsurance ceded					
0699999. Disability-Disabled Lives: Totals (Net)	8,342,085		8,342,085		
0700001. AG43 reserve	921,652		921,652		
0700002. Minimum death benefit	78,486		78,486		
0700003. Policy loans	2,221,137		2,221,137		
0700004. Term cost reserve	504		504		
0799997. Totals (Gross)	3,221,779		3,221,779		
0799998. Reinsurance ceded					
0799999. Miscellaneous Reserves: Totals (Net)	3,221,779		3,221,779		
9999999. Totals (Net) - Page 3, Line 1	138,538,127		137,118,326		1,419,801

EXHIBIT 5 - INTERROGATORIES

- 1.1 Has the reporting entity ever issued both participating and non-participating contracts?..... Yes [] No [X]
- 1.2 If not, state which kind is issued.
 Non-Participating
- 2.1 Does the reporting entity at present issue both participating and non-participating contracts?..... Yes [] No [X]
- 2.2 If not, state which kind is issued.
 Non-Participating
- 3. Does the reporting entity at present issue or have in force contracts that contain non-guaranteed elements?..... Yes [X] No []
 If so, attach a statement that contains the determination procedures, answers to the interrogatories and an actuarial opinion as described in the instructions.
- 4. Has the reporting entity any assessment or stipulated premium contracts in force? Yes [] No [X]
 If so, state:
 4.1 Amount of insurance? \$
 4.2 Amount of reserve? \$
 4.3 Basis of reserve:
- 4.4 Basis of regular assessments:
- 4.5 Basis of special assessments:
- 4.6 Assessments collected during the year \$
- 5. If the contract loan interest rate guaranteed in any one or more of its currently issued contracts is less than 5%, not in advance, state the contract loan rate guarantees on any such contracts.
- 6. Does the reporting entity hold reserves for any annuity contracts that are less than the reserves that would be held on a standard basis? Yes [] No [X]
 6.1 If so, state the amount of reserve on such contracts on the basis actually held: \$
 6.2 That would have been held (on an exact or approximate basis) using the actual ages of the annuitants; the interest rate(s) used in 6.1; and the same mortality basis used by the reporting entity for the valuation of comparable annuity benefits issued to standard lives. If the reporting entity has no comparable annuity benefits for standard lives to be valued, the mortality basis shall be the table most recently approved by the state of domicile for valuing individual annuity benefits: \$
 Attach statement of methods employed in their valuation.
- 7. Does the reporting entity have any Synthetic GIC contracts or agreements in effect as of December 31 of the current year? Yes [] No [X]
 7.1 If yes, state the total dollar amount of assets covered by these contracts or agreements \$
 7.2 Specify the basis (fair value, amortized cost, etc.) for determining the amount:
- 7.3 State the amount of reserves established for this business: \$
 7.4 Identify where the reserves are reported in the blank:
- 8. Does the reporting entity have any Contingent Deferred Annuity contracts or agreements in effect as of December 31 of the current year? Yes [] No [X]
 8.1 If yes, state the total dollar amount of account value covered by these contracts or agreements: \$
 8.2 State the amount of reserves established for this business: \$
 8.3 Identify where the reserves are reported in the blank:
- 9. Does the reporting entity have any Guaranteed Lifetime Income Benefit contracts, agreements or riders in effect as of December 31 of the current year? Yes [] No [X]
 9.1 If yes, state the total dollar amount of any account value associated with these contracts, agreements or riders: \$
 9.2 State the amount of reserves established for this business: \$
 9.3 Identify where the reserves are reported in the blank:

EXHIBIT 5A - CHANGES IN BASES OF VALUATION DURING THE YEAR

1	Valuation Basis		4
Description of Valuation Class	2	3	Increase in Actuarial Reserve Due to Change
	Changed from	Changed To	
NONE			
9999999 - Total (Column 4, only)			

Exhibit 6 - Aggregate Reserves for Accident and Health Contracts

NONE

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

EXHIBIT 7 - 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 before reinsurance	9,891,826		62,038	9,829,788		
2. Deposits received during the year	3,906,778			3,906,778		
3. Investment earnings credited to the account	270,321			270,321		
4. Other net change in reserves			62,230	(62,230)		
5. Fees and other charges assessed						
6. Surrender charges						
7. Net surrender or withdrawal payments	2,520,526			2,520,526		
8. Other net transfers to or (from) Separate Accounts						
9. Balance at the end of current year before reinsurance (Lines 1+2+3+4-5-6-7-8)	11,548,399		124,268	11,424,131		
10. Reinsurance balance at the beginning of the year						
11. Net change in reinsurance assumed						
12. Net change in reinsurance ceded						
13. Reinsurance balance at the end of the year (Lines 10+11-12)						
14. Net balance at the end of current year after reinsurance (Lines 9 + 13)	11,548,399		124,268	11,424,131		

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
EXHIBIT 8 - CLAIMS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

PART 1 - Liability End of Current Year

	1 Total	2 Industrial Life	Ordinary			6 Credit Life (Group and Individual)	Group		Accident and Health		
			3 Life Insurance	4 Individual Annuities	5 Supplementary Contracts		7 Life Insurance	8 Annuities	9 Group	10 Credit (Group and Individual)	11 Other
1. Due and unpaid:											
1.1 Direct											
1.2 Reinsurance assumed											
1.3 Reinsurance ceded											
1.4 Net											
2. In course of settlement:											
2.1 Resisted											
2.11 Direct											
2.12 Reinsurance assumed											
2.13 Reinsurance ceded											
2.14 Net			(b)	(b)		(b)	(b)				
2.2 Other											
2.21 Direct	11,474,597		7,890,508				3,584,089				
2.22 Reinsurance assumed											
2.23 Reinsurance ceded	8,383,531		4,799,442				3,584,089				
2.24 Net	3,091,066		(b) 3,091,066	(b)		(b)	(b)		(b)	(b)	(b)
3. Incurred but unreported:											
3.1 Direct	1,130,294		1,130,294								
3.2 Reinsurance assumed											
3.3 Reinsurance ceded	396,900		396,900								
3.4 Net	733,394		(b) 733,394	(b)		(b)	(b)		(b)	(b)	(b)
4. TOTALS											
4.1 Direct	12,604,891		9,020,802				3,584,089				
4.2 Reinsurance assumed											
4.3 Reinsurance ceded	8,780,431		5,196,342				3,584,089				
4.4 Net	3,824,460	(a)	(a) 3,824,460				(a)				

(a) Including matured endowments (but not guaranteed annual pure endowments) unpaid amounting to \$ _____ in Column 2, \$ _____ in Column 3 and \$ _____ in Column 7.

(b) Include only portion of disability and accident and health claim liabilities applicable to assumed "accrued" benefits. Reserves (including reinsurance assumed and net of reinsurance ceded) for unaccrued benefits for Ordinary Life Insurance \$ _____, 275,107 Individual Annuities \$ _____, Credit Life (Group and Individual) \$ _____, and Group Life \$ _____, are included in Page 3, Line 1, (See Exhibit 5, Section on Disability Disabled Lives); and for Group Accident and Health \$ _____, Credit (Group and Individual) Accident and Health \$ _____, and Other Accident and Health \$ _____ are included in Page 3, Line 2 (See Exhibit 6, Claim Reserve).

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
EXHIBIT 8 - CLAIMS FOR LIFE AND ACCIDENT AND HEALTH CONTRACTS

PART 2 - Incurred During the Year

	1 Total	2 Industrial Life (a)	Ordinary			6 Credit Life (Group and Individual)	Group		Accident and Health		
			3 Life Insurance (b)	4 Individual Annuities	5 Supplementary Contracts		7 Life Insurance (c)	8 Annuities	9 Group	10 Credit (Group and Individual)	11 Other
1. Settlements During the Year:											
1.1 Direct	69,187,801		27,757,583	3,111,803			38,318,416				
1.2 Reinsurance assumed											
1.3 Reinsurance ceded	24,460,316		14,101,586				10,358,730				
1.4 Net	(d) 44,727,485		13,655,997	3,111,803			27,959,685				
2. Liability December 31, current year from Part 1:											
2.1 Direct	12,604,891		9,020,802				3,584,089				
2.2 Reinsurance assumed											
2.3 Reinsurance ceded	8,780,431		5,196,342				3,584,089				
2.4 Net	3,824,460		3,824,460								
3. Amounts recoverable from reinsurers December 31, current year	2,911,681		1,104,690				1,806,991				
4. Liability December 31, prior year:											
4.1 Direct	12,383,621		4,885,154				7,498,468				
4.2 Reinsurance assumed											
4.3 Reinsurance ceded	5,642,111		2,443,016				3,199,095				
4.4 Net	6,741,511		2,442,138				4,299,373				
5. Amounts recoverable from reinsurers December 31, prior year	5,325,462		734,466				4,590,996				
6. Incurred Benefits											
6.1 Direct	69,409,071		31,893,231	3,111,803			34,404,037				
6.2 Reinsurance assumed											
6.3 Reinsurance ceded	25,184,855		17,225,136				7,959,719				
6.4 Net	44,224,216		14,668,095	3,111,803			26,444,318				

(a) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ in Line 1.1, \$ in Line 1.4.
 \$ in Line 6.1, and \$ in Line 6.4.

(b) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ in Line 1.1, \$ in Line 1.4.
 \$ in Line 6.1, and \$ in Line 6.4.

(c) Including matured endowments (but not guaranteed annual pure endowments) amounting to \$ in Line 1.1, \$ in Line 1.4.
 \$ in Line 6.1, and \$ in Line 6.4.

(d) Includes \$340,867 premiums waived under total and permanent disability benefits.

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

EXHIBIT OF NON-ADMITTED ASSETS

	1	2	3
	Current Year Total Nonadmitted Assets	Prior Year Total Nonadmitted Assets	Change in Total Nonadmitted Assets (Col. 2 - Col. 1)
1. Bonds (Schedule D)			
2. Stocks (Schedule D):			
2.1 Preferred stocks			
2.2 Common stocks			
3. Mortgage loans on real estate (Schedule B):			
3.1 First liens			
3.2 Other than first liens.....			
4. Real estate (Schedule A):			
4.1 Properties occupied by the company			
4.2 Properties held for the production of income.....			
4.3 Properties held for sale			
5. Cash (Schedule E - Part 1), cash equivalents (Schedule E - Part 2) and short-term investments (Schedule DA)			
6. Contract loans			
7. Derivatives (Schedule DB)			
8. Other invested assets (Schedule BA)			
9. Receivables for securities			
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)			
13. Title plants (for Title insurers only)			
14. Investment income due and accrued	1,760		(1,760)
15. Premiums and considerations:			
15.1 Uncollected premiums and agents' balances in the course of collection	477		(477)
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due			
15.3 Accrued retrospective premiums and contracts subject to redetermination			
16. Reinsurance:			
16.1 Amounts recoverable from reinsurers			
16.2 Funds held by or deposited with reinsured companies			
16.3 Other amounts receivable under reinsurance contracts			
17. Amounts receivable relating to uninsured plans			
18.1 Current federal and foreign income tax recoverable and interest thereon			
18.2 Net deferred tax asset	13,733,302	3,847,610	(9,885,992)
19. Guaranty funds receivable or on deposit			
20. Electronic data processing equipment and software			
21. Furniture and equipment, including health care delivery assets			
22. Net adjustment in assets and liabilities due to foreign exchange rates			
23. Receivables from parent, subsidiaries and affiliates			
24. Health care and other amounts receivable			
25. Aggregate write-ins for other than invested assets			
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	13,735,539	3,847,610	(9,887,929)
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts			
28. Total (Lines 26 and 27)	13,735,539	3,847,610	(9,887,929)
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)			
2501.			
2502.			
2503.			
2598. Summary of remaining write-ins for Line 25 from overflow page			
2599. Totals (Lines 2501 thru 2503 plus 2598)(Line 25 above)			

NOTES TO FINANCIAL STATEMENTS

TABLE OF CONTENTS

Note 1 – Summary of Significant Accounting Policies and Going Concern
Note 2 – Accounting Changes and Corrections of Errors
Note 3 – Business Combinations and Goodwill
Note 4 – Discontinued Operations
Note 5 – Investments
Note 6 – Joint Ventures, Partnerships and Limited Liability Companies
Note 7 – Investment Income
Note 8 – Derivative Instruments
Note 9 – Income Taxes
Note 10 – Information Concerning Parent, Subsidiaries and Affiliates
Note 11 – Debt
Note 12 – Retirement Plans, Deferred Compensation, Postemployment Benefits and Compensated Absences and Other Postretirement Benefit Plans
Note 13 – Capital and Surplus, Shareholders' Dividend Restrictions and Quasi-Reorganizations
Note 14 – Liabilities, Contingencies and Assessments
Note 15 – Leases
Note 16 – Information About Financial Instruments With Off-Balance Sheet Risk and Financial Instruments With Concentrations of Credit Risk
Note 17 – Sale, Transfer and Servicing of Financial Assets and Extinguishments of Liabilities
Note 18 – Gain or Loss to the Reporting Entity from Uninsured Plans and the Uninsured Portion of Partially Insured Plans
Note 19 – Direct Premium Written/Produced By Managing General Agents/Third Party Administrators
Note 20 – Fair Value Measurements
Note 21 – Other Items
Note 22 – Events Subsequent
Note 23 – Reinsurance
Note 24 – Retrospectively Rated Contracts and Contracts Subject to Redetermination
Note 25 – Change in Incurred Losses and Loss Adjustment Expenses
Note 26 – Intercompany Pooling Arrangements
Note 27 – Structured Settlements
Note 28 – Health Care Receivables
Note 29 – Participating Policies
Note 30 – Premium Deficiency Reserves
Note 31 – Reserves for Life Contracts and Annuity Contracts
Note 32 – Analysis of Annuity Actuarial Reserves and Deposit Type Liabilities by Withdrawal Characteristics
Note 33 – Premium and Annuity Considerations Deferred and Uncollected
Note 34 – Separate Accounts
Note 35 – Loss/Claim Adjustment Expenses

NOTES TO FINANCIAL STATEMENTS

Note 1 – Summary of Significant Accounting Policies and Going Concern

a. Accounting practices:

The accompanying financial statements of MML Bay State Life Insurance Company (the Company) have been prepared in conformity with the Statutory Accounting Practices (SAP) of the National Association of Insurance Commissioners (NAIC) and the accounting practices prescribed or permitted by the State of Connecticut Insurance Department (the Department).

A reconciliation of the Company's net income and capital and surplus between NAIC SAP and practices prescribed and permitted by the State of Connecticut is shown below:

	SSAP #	F/S Page	F/S Line	2016	2015
NET INCOME					
(1) State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$ 20,255,139	\$ 20,657,513
(2) State prescribed practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(3) State permitted practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	<u>\$ 20,255,139</u>	<u>\$ 20,657,513</u>
SURPLUS					
(5) State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$ 288,294,439	\$ 231,301,005
(6) State prescribed practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(7) State permitted practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A	-	-
(8) NAIC SAP (5-6-7=8)	XXX	XXX	XXX	<u>\$ 288,294,439</u>	<u>\$ 231,301,005</u>

b. Use of estimates in the preparation of the financial statements:

The preparation of financial statements requires management to make estimates and assumptions that impact the reported amounts of assets and liabilities, the disclosure of assets and liabilities as of the date of the statutory financial statements and the reported amounts of revenues and expenses during the reporting periods. The most significant estimates include those used in determining the carrying values of investments including the amount of mortgage loan investment valuation reserves, other-than-temporary impairment(s) (OTTI), the liabilities for policyholders' reserves, the determination of admissible deferred tax assets (DTAs), the liability for taxes and litigation contingencies. Future events including, but not limited to, changes in the level of mortality, morbidity, interest rates, persistency, asset valuations and defaults could cause results to differ from the estimates used in the statutory financial statements. Although some variability is inherent in these estimates, management believes the amounts presented are appropriate.

c. Accounting policy:

Life insurance premium revenue is generally recognized annually on the anniversary date of the policy. However, premium for flexible products, primarily universal life and variable universal life contracts, is recognized as revenue when received. Annuity premium is recognized as revenue when received. Expenses incurred in connection with acquiring new insurance business, including certain acquisition costs, such as commissions, are charged to current operations as incurred. Policy loans are carried at the outstanding loan balance less amounts unsecured by the cash surrender value of the policy. Unsecured amounts can occur when subsequent charges are incurred on the underlying policy without the receipt of additional premium. Where applicable, the values of invested assets have been adjusted for impairments considered OTTI.

In addition, the Company uses the following accounting policies:

- (1) Short-term investments, which are carried at amortized cost, consist of all highly liquid investments purchased with maturities of greater than three months and less than or equal to 12 months. Investments in short-term bonds are classified as short-term investments.
- (2) Bonds are generally valued at amortized cost using the constant yield interest method with the exception of NAIC Category 6 bonds, which are in or near default, and certain residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), which are rated by outside modelers, which are carried at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bond transactions are recorded on a trade date basis, except for private placement bonds, which are recorded on the funding date.

The fair value of bonds is based on quoted market prices when available. If quoted market prices are not available, values provided by other third-party organizations are used. If values provided by other third-party organizations are unavailable, fair value is estimated using internal models by discounting expected future cash flows using observable current market rates applicable to yield, credit quality and maturity of the investment or using quoted market values for comparable investments. Internal inputs used in the determination of fair value include estimated prepayment speeds, default rates, discount rates and collateral values, among others. Structure characteristics and cash flow priority are also considered. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants at the financial statement date.

Refer to Note 1c. "Accounting policy" (14) for information on the Company's policy for determining OTTI.

- (3) As of December 31, 2016 and 2015, the Company did not hold any common stocks.
- (4) As of December 31, 2016 and 2015, the Company did not hold any preferred stocks.
- (5) Mortgage loans are valued at the unpaid principal balance of the loan, net of unamortized premium, discount, mortgage origination fees and valuation allowances. Mortgage loans comprised primarily seasoned pools of homogeneous residential mortgage loans substantially backed by Federal Housing Administration (FHA) and Veterans Administration (VA) guarantees.
- (6) For loan-backed and structured securities, such as asset-backed securities (ABS), mortgage-backed securities (MBS), including residential mortgage-backed securities and commercial mortgage-backed securities, and structured securities, including collateralized debt obligations (CDOs), amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies.

Certain fixed income securities, with the highest ratings from a rating agency follow the retrospective method of accounting. Under the retrospective method, the recalculated effective yield equates the present value of the actual and anticipated cash flows, including new prepayment assumptions, to the original cost of the investment. Prepayment assumptions are based on borrower constraints and economic incentives such as the original term, age and coupon of the loan as affected by the

NOTES TO FINANCIAL STATEMENTS

interest rate environment. The current carrying value is then increased or decreased to the amount that would have resulted had the revised yield been applied since inception, and investment income is correspondingly decreased or increased.

All other fixed income securities, such as floating rate bonds and interest only securities, including those that have been impaired, follow the prospective method of accounting. Under the prospective method, the recalculated future effective yield equates the carrying value of the investment to the present value of the anticipated future cash flows.

Refer to Note 1c. "Accounting policy" (14) for information on the Company's policy for determining OTTI.

- (7) The Company did not own any subsidiaries and did not hold any investments in controlled or affiliated companies.
- (8) The Company did not have any investments in joint ventures, partnerships or limited liability companies (LLCs).
- (9) The Company did not have any derivative financial instruments.
- (10) The Company does not utilize anticipated investment income as a factor in the premium deficiency calculation in accordance with Statutory Accounting Principles (SSAP) No. 54 "Individual and Group Accident and Health Contracts."
- (11) The Company does not have disability or long-term care contracts therefore it does not have any unpaid claim or claim expense reserves related to these products.
- (12) The Company has not modified its capitalization policy from the prior period.
- (13) The Company did not issue any business that would give rise to pharmaceutical rebates or risk sharing receivables.
- (14) The book values of investments are written down when declines in values are considered to be other than temporary.

Bonds - general

The Company employs a systematic methodology to evaluate OTTI by conducting a quarterly analysis of bonds. The impairment review process provides a framework for determining OTTI in a manner consistent with market participant assumptions. The Company considers the following factors, where applicable depending on the type of securities, in the evaluation of whether a decline in value is other than temporary: (a) the likelihood that the Company will be able to collect all amounts due according to the contractual terms of the debt security; (b) the present value of the expected future cash flows of the security; (c) the characteristics, quality and value of the underlying collateral or issuer securing the position; (d) collateral structure; (e) the length of time and extent to which the fair value has been below amortized cost; (f) the financial condition and near-term prospects of the issuer; (g) adverse conditions related to the security or industry; (h) the rating of the security; (i) the Company's ability and intent to hold the investment for a period of time sufficient to allow for an anticipated recovery to amortized cost; and (j) other qualitative and quantitative factors in determining the existence of OTTI including, but not limited to, unrealized loss trend analysis and significant short-term changes in value.

In addition, if the Company has the intent to sell, or the inability, or lack of intent to retain the investment for a period sufficient to recover the amortized cost basis, an OTTI is recognized as a realized loss equal to the entire difference between the investment's amortized cost basis and its fair value at the balance sheet date.

When a bond is other-than-temporarily impaired, a new cost basis is established.

Bonds - corporate

For corporate securities, if it is determined that a decline in the fair value of a bond is other than temporary, OTTI is recognized as a realized loss equal to the difference between the investment's amortized cost basis and, generally, its fair value at the balance sheet date.

Bonds - loan-backed and structured securities

For loan-backed and structured securities, if the present value of cash flows expected to be collected is less than the amortized cost basis of the security, an OTTI is recognized as a realized loss equal to the difference between the investment's amortized cost basis and the present value of cash flows expected to be collected. The expected cash flows are discounted at the security's effective interest rate. Internal inputs used in determining the amount of the OTTI on structured securities include collateral performance, prepayment speeds, default rates, and loss severity based on borrower and loan characteristics, as well as deal structure including subordination, over-collateralization and cash flow priority.

ABS and MBS are evaluated for OTTI using scenarios and assumptions based on the specifics of each security including collateral type, loan type, vintage and subordination level in the structure. Cash flow estimates are based on these assumptions and inputs obtained from external industry sources along with internal analysis and actual experience. Where applicable, assumptions include prepayment speeds, default rates and loss severity, weighted average maturity and changes in the underlying collateral values.

The Company has a review process for determining if CDOs are at risk for OTTI. For the senior, mezzanine and junior debt tranches, cash flows are modeled using multiple scenarios based on the current ratings and values of the underlying corporate credit risks and incorporating prepayment and default assumptions that vary according to collateral attributes of each CDO. The prepayment and default assumptions are varied within each model based upon rating (base case), historical expectations (default), rating change improvement (optimistic), rating change downgrade (pessimistic) and fair value (market). The default rates produced by these multiple scenarios are assigned an expectation weight according to current market and economic conditions and fed into a final scenario. OTTI is recorded if this final scenario results in the loss of any principal or interest payments due.

For the most subordinated junior CDO tranches, the present value of the projected cash flows in the final scenario is measured using an effective yield. If the current book value of the security is greater than the present value measured using an effective yield, an OTTI is taken in an amount sufficient to produce its effective yield. Certain CDOs cannot be modeled using all of the scenarios because of limitations on the data needed for all scenarios. The cash flows for these CDOs, including foreign currency denominated CDOs, are projected using a customized scenario management believes is reasonable for the applicable collateral pool.

For loan-backed and structured securities, any difference between the new amortized cost basis and any increased present value of future cash flows expected to be collected is accreted into net investment income over the expected remaining life of the bond.

NOTES TO FINANCIAL STATEMENTS

- d. Going concern:
There is not substantial doubt regarding the Company's ability to continue as a going concern.

Note 2 – Accounting Changes and Corrections of Errors

- a. For the years ended December 31, 2016 and 2015, the Company did not record any corrections of prior year errors.

Certain prior year amounts within these financial statements have been reclassified to conform to the current year presentation.

- b. Adoption of new accounting standards
In April and August 2016, the NAIC adopted and made effective modifications to SSAP No. 1, *Accounting Policies, Risks & Uncertainties, and Other Disclosures*. The modifications clarify that the disclosure presentation for permitted and prescribed practices should include practices that result in different statutory accounting reporting (such as gross or net) presentations that differ from the Accounting Practices and Procedures (AP&P) Manual. The modifications also clarified that disclosure of restricted assets should be included in the annual financial statements, and, pursuant to the AP&P manual preamble, in the interim financial statements if significant changes have occurred since the annual statement. These modifications did not have an impact on the Company's financial statements.

In June 2016, the NAIC adopted and made effective modifications to SSAP No. 97, *Investments in Subsidiary, Controlled and Affiliated Entities*. The modifications clarify which entities are subject to the subsidiary, controlled and affiliated (SCA) disclosure and add a new appendix detailing the filing guidance that was previously included within the Purposes and Procedures Manual of the NAIC Investment Analysis Office for SCA entities. These modifications did not have an impact on the Company's financial statements.

In June 2016, the NAIC adopted modifications to SSAP No. 2, *Cash, Drafts and Short-Term Investments*, SSAP No. 26, *Bonds, Excluding Loan-backed and Structured Securities*, and SSAP No. 30, *Unaffiliated Common Stock*, which were effective September 30, 2016. These modifications clarify the accounting for short-term investments and the classification of Money Market Mutual Funds registered under the Investment Company Act of 1940 (the Act) and regulated under rule 2a-7 of the Act as short-term investments under SSAP No. 2. While retaining the short-term classification, Money Market Mutual Funds may be accounted for under SSAP No. 26 or SSAP No. 30. These modifications did not have a significant impact on the Company's financial statements.

In June 2016, the NAIC adopted modifications to SSAP No. 1, *Accounting Policies, Risks & Uncertainties, and Other Disclosures*, which are effective December 31, 2016. These modifications require the reporting entity to disclose the amount and nature of any assets reflected within the reporting entity's financial statements that were received as collateral and the recognized liability to return these collateral assets. The Company has adopted these modifications.

In August 2016, the NAIC adopted and made effective modifications to SSAP No. 51, *Life Contracts*. These modifications clarify that annual assumption changes from reserving methods used in principles-based reserving (PBR) would not qualify as a change in valuation basis. Changes in valuation basis are recorded directly to surplus instead of through income. This modification was made to accommodate PBR which becomes effective January 1, 2017. This modification did not have an impact on the Company's financial statements.

Note 3 – Business Combinations and Goodwill

- a. The Company did not have any business combinations accounted for using the statutory purchase method.
- b. There were no business combinations taking the form of a statutory merger.
- c. The Company did not enter into any assumption reinsurance agreements.
- d. The Company did not recognize an impairment loss on the transactions described above.

Note 4 – Discontinued Operations

The Company did not have any discontinued operations.

Note 5 – Investments

- a. Mortgage loans:
- (1) During 2016, the Company did not purchase residential mortgage loans.

During 2015, both the maximum and minimum lending rates for new residential mortgage loans were 3.9%.
 - (2) During 2016 and 2015, the Company did not own any commercial mortgage loans or mezzanine real estate loans.
 - (3) As of December 31, 2016 and 2015, the Company did not have any taxes, assessments and amounts advanced and not included in the mortgage loan total.

NOTES TO FINANCIAL STATEMENTS

(4) Age analysis of mortgage loans:

	Residential			Commercial		Mezzanine	Total
	Farm	Insured	All Other	Insured	All Other		
a. 2016							
1. Recorded investment (all)							
(a) Current	\$ - \$	3,828,103 \$	178,985 \$	- \$	- \$	- \$	4,007,088
(b) 30-59 days past due	-	-	-	-	-	-	-
(c) 60-89 days past due	-	-	-	-	-	-	-
(d) 90-179 days past due	-	-	-	-	-	-	-
(e) 180+ days past due	-	-	-	-	-	-	-
2. Accruing interest 90-179 days past due							
(a) Recorded investment	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
(b) Interest accrued	-	-	-	-	-	-	-
3. Accruing interest 180+ days past due							
(a) Recorded investment	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
(b) Interest accrued	-	-	-	-	-	-	-
4. Interest reduced							
(a) Recorded investment	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
(b) Number of loans	-	-	-	-	-	-	-
(c) Percent reduced	-	-	-	-	-	-	-
b. 2015							
1. Recorded investment (all)							
(a) Current	\$ - \$	5,655,082 \$	192,376 \$	- \$	- \$	- \$	5,847,458
(b) 30-59 days past due	-	-	-	-	-	-	-
(c) 60-89 days past due	-	-	-	-	-	-	-
(d) 90-179 days past due	-	-	-	-	-	-	-
(e) 180+ days past due	-	-	-	-	-	-	-
2. Accruing interest 90-179 days past due							
(a) Recorded investment	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
(b) Interest accrued	-	-	-	-	-	-	-
3. Accruing interest 180+ days past due							
(a) Recorded investment	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
(b) Interest accrued	-	-	-	-	-	-	-
4. Interest reduced							
(a) Recorded investment	\$ - \$	- \$	- \$	- \$	- \$	- \$	-
(b) Number of loans	-	-	-	-	-	-	-
(c) Percent reduced	-	-	-	-	-	-	-

(5) As of December 31, 2016 and 2015, the Company did not have any impaired mortgage loans with or without allowance for credit losses.

(6) As of December 31, 2016 and 2015, the Company did not have any impaired mortgage loans.

(7) As of and for the years ended December 31, 2016 and 2015, the Company did not have any mortgage loans with allowance for credit losses nor any changes in the allowance for credit losses.

(8) As of December 31, 2016, the Company did not have any mortgage loans derecognized as a result of foreclosure.

(9) Interest income earned on impaired loans is accrued on the outstanding principal balance of the loan based on the loan's contractual coupon rate. Interest is not accrued for (a) impaired loans more than 60 days past due, (b) delinquent loans more than 90 days past due, or (c) loans that have interest that is not expected to be collected. The Company continually monitors mortgage loans where the accrual of interest has been discontinued, and will resume the accrual of interest on a mortgage loan when the facts and circumstances of the borrower and property indicate that the payments will continue to be received according to the terms of the original or modified mortgage loan agreement.

b. Debt restructuring:

As of December 31, 2016 and 2015, the Company did not have any restructured debt.

c. Reverse mortgages:

As of December 31, 2016 and 2015, the Company did not have any reverse mortgages.

NOTES TO FINANCIAL STATEMENTS

d. Loan-backed and structured securities:

- (1) Prepayment assumptions for loan-backed and structured securities are based on various assumptions and inputs obtained from external industry sources along with internal analysis and actual experience.
- (2) The following contains loan-backed and structured securities that recognized OTTI classified on the following bases for recognizing OTTI:

(1) Amortized Cost Basis Before OTTI	(2) OTTI Recognized in Loss		(3) Fair Value 1-(2a+2b)
	(2a) Interest	(2b) Non-interest	

OTTI recognized in the first quarter

a. Intent to sell	\$	-	\$	-	\$	-
b. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		-		-		-
c. Total first quarter	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>

OTTI recognized in the second quarter

d. Intent to sell	\$	-	\$	-	\$	-
e. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		76,837		-		6,452
f. Total second quarter	<u>\$</u>	<u>76,837</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>6,452</u>

OTTI recognized in the third quarter

g. Intent to sell	\$	-	\$	-	\$	-
h. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		118,384		-		845
i. Total third quarter	<u>\$</u>	<u>118,384</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>845</u>

OTTI recognized in the fourth quarter

j. Intent to sell	\$	-	\$	-	\$	-
k. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		110,964		-		1,816
l. Total fourth quarter	<u>\$</u>	<u>110,964</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>1,816</u>

m. Annual aggregate total

<u>\$</u>	<u>-</u>	<u>\$</u>	<u>9,113</u>
-----------	----------	-----------	--------------

All impairments were taken due to the present value of cash flows expected to be collected being less than the amortized cost basis.

- (3) The following is a CUSIP detail list of impaired structured securities where the present value of cash flows expected to be collected is less than the amortized cost basis.

CUSIP	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value at Time of OTTI	Date of Financial Instrument Where Reported
79549ASM2	\$ 76,836.92	\$ 70,384.74	\$ (6,452.18)	\$ 70,384.74	\$ 72,517.43	June 30, 2016
86358RA23	118,384.46	117,539.46	(845.00)	117,539.46	112,771.17	September 30, 2016
05948JAA0	3,127.19	3,108.30	(18.89)	3,108.30	2,908.83	December 31, 2016
86358RA23	107,836.45	106,038.97	(1,797.48)	106,038.97	101,998.78	December 31, 2016
Totals	<u>\$ 306,185.02</u>	<u>\$ 297,071.47</u>	<u>\$ (9,113.55)</u>	<u>\$ 297,071.47</u>	<u>\$ 290,196.21</u>	

- (4) As of December 31, 2016, the gross unrealized losses and fair values for investments in structured and loan-backed securities which an OTTI has not been recognized in earnings follow:

a. The aggregate amount of unrealized losses:		
1. Less than 12 months	\$	(2,115,404)
2. 12 months or longer	\$	(47,305)
b. The aggregate related fair value of securities with unrealized losses:		
1. Less than 12 months	\$	95,777,832
2. 12 months or longer	\$	1,517,355

- (5) No additional information.

e. Repurchase agreements:

- (1) The Company did not have any repurchase agreements for the years ended December 31, 2016 or 2015.

f. Real estate:

- (1) The Company did not have any investments in real estate for the years ended December 31, 2016 and 2015.

g. Low income housing tax credit properties:

NOTES TO FINANCIAL STATEMENTS

(1) The Company did not have any these properties for the years ended December 31, 2016 or 2015.

h. Restricted assets:

(1) Restricted assets (including pledged):

Restricted Asset Category	Gross (Admitted & Nonadmitted) Restricted					Current Year					
	Current Year					6	7	8	9	Percentage	
	1	2	3	4	5					10	11
Total General Account (G/A)	G/A Supporting S/A Activity (a)	Total Separate Account (S/A) Restricted Assets	S/A Assets Supporting G/A Activity (b)	Total (1 plus 3)	Total from Prior Year	Increase/ (Decrease) (5 minus 6)	Total Nonadmitted Restricted	Total Current Year Admitted Restricted (5 minus 8)	Gross (Admitted & Nonadmitted) Restricted to Total Assets (c)	Admitted Restricted to Total Admitted Assets (d)	
a. Subject to contractual obligation for which liability is not shown	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
b. Collateral held under security lending agreements	-	-	-	-	-	-	-	-	-	-	
c. Subject to repurchase agreements	-	-	-	-	-	-	-	-	-	-	
d. Subject to reverse repurchase agreements	-	-	-	-	-	-	-	-	-	-	
e. Subject to dollar repurchase agreements	-	-	-	-	-	-	-	-	-	-	
f. Subject to dollar reverse repurchase agreements	-	-	-	-	-	-	-	-	-	-	
g. Placed under option contracts	-	-	-	-	-	-	-	-	-	-	
h. Letter stock or securities restricted as to sale - excluding FHLB capital stock	-	-	-	-	-	-	-	-	-	-	
i. FHLB capital stock	-	-	-	-	-	-	-	-	-	-	
j. On deposit with states	4,265,185	-	-	-	4,265,185	4,234,661	30,524	-	4,265,185	0.088%	
k. On deposit with other regulatory bodies	-	-	-	-	-	-	-	-	-	-	
l. Pledged collateral to FHLB (including assets backing funding agreements)	-	-	-	-	-	-	-	-	-	-	
m. Pledged as collateral not captured in other categories	-	-	-	-	-	-	-	-	-	-	
n. Other restricted assets	-	-	-	-	-	-	-	-	-	-	
o. Total restricted assets	\$ 4,265,185	\$ -	\$ -	\$ -	\$ 4,265,185	\$ 4,234,661	\$ 30,524	\$ -	\$ 4,265,185	0.088%	

(a) Subset of column 1

(b) Subset of column 3

(c) Column 5 divided by Asset Page, Column 1, Line 28

(d) Column 9 divided by Asset Page, Column 3, Line 28

NOTES TO FINANCIAL STATEMENTS

(2) Detail of Assets Pledged as Collateral Not Captured in Other Categories (Contracts that Share Similar Characteristics, Such as Reinsurance and Derivatives Are Reported in the Aggregate)

Description of Assets	Gross (Admitted & Nonadmitted) Restricted					8			Percentage	
	Current Year					6	7	8	9	10
	1	2	3	4	5					
	Total General Account (G/A)	G/A Supporting S/A Activity (a)	Total Separate Account (S/A) Restricted Assets	S/A Assets Supporting G/A Activity (b)	Total (1 plus 3)	Total from Prior Year	Increase/ (Decrease) (5 minus 6)	Total Current Year Admitted Restricted	Gross (Admitted & Nonadmitted) Restricted to Total Assets (d)	Admitted Restricted to Total Admitted Assets (e)
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-
Total (c)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-

(a) Subset of column 1

(b) Subset of column 3

(c) Total Line for Column 1 through 7 should equal 5H (1) in Columns 1 through 7 respectively and Total Line for Columns 8 through 10 should equal 5H (1) Columns 9 through 11 respectively

(d) Column 5 divided by Asset Page, Column 1, Line 28

(e) Column 9 divided by Asset Page, Column 3, Line 28

(3) Detail of Other Restricted Assets (Contracts that Share Similar Characteristics, Such as Reinsurance and Derivatives,) Are Reported in the Aggregate)

Description of Assets	Gross (Admitted & Nonadmitted) Restricted					7			Percentage	
	Current Year					6	7	8	9	10
	1	2	3	4	5					
	Total General Account (G/A)	G/A Supporting S/A Activity (a)	Total Separate Account (S/A) Restricted Assets	S/A Assets Supporting G/A Activity (b)	Total (1 plus 3)	Total from Prior Year	Increase/ (Decrease) (5 minus 6)	Total Current Year Admitted Restricted	Gross (Admitted & Nonadmitted) Restricted to Total Assets (d)	Admitted Restricted to Total Admitted Assets (e)
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-
	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-
*Total (c)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-	-

(a) Subset of column 1

(b) Subset of column 3

(c) Total Line for Columns 1 through 7 should equal 5H(1)mn Columns 1 through 7 respectively and Total Line for Columns 8 through 10 should equal 5H(1)mn Columns 9 through 11 respectively

(d) Column 5 divided by Asset Page, Column 1, Line 28

(e) Column 9 divided by Asset Page, Column 3, Line 28

i. Working capital finance investments: The Company did not invest in working capital finance investments.

j. Offsetting and netting of assets and liabilities - The Company does not currently hold derivatives, repurchase agreements, reverse repurchase agreements or securities lending assets and liabilities.

k. Structured notes:

A structured note is a direct debt issuance by a corporation, municipality, or government entity, ranking pari-passu with the issuer's other debt issuance of equal seniority where either: (a) the coupon and/or principal payments are linked, in whole or in part, to prices or payment streams from index or indices, or assets deriving their value from other than the issuer's credit quality, or (b) the coupon and/or principal payments are leveraged by a formula that is different from either a fixed coupon, or a non-leveraged floating rate coupon linked to an interest rate index, including but not limited to the London Interbank Offered Rate (LIBOR) or the prime rate. As structured notes are issuer obligations without a trust, they are within the scope of SSAP No. 26, "Bonds, Excluding Loan-backed and Structured Securities" (SSAP No. 26). Structured notes are different than the asset backed structured securities, which are accounted for under SSAP No. 43R, "Revised - Loan-Backed and Structured Securities" (SSAP No. 43R), as they lack either a trust or assets

NOTES TO FINANCIAL STATEMENTS

backing them. The disclosure below allows regulators to assess the volume of activity in structured notes and to determine whether additional accounting or reporting revisions, such as valuation and risk-based capital, are needed. To satisfy this request, the Company is required to separately identify structured notes, on a CUSIP basis and provide information by CUSIP for actual cost, fair value, book/adjusted carrying value, and whether the structured note is a mortgage-referenced security. The following sets forth the actual cost, fair value and carrying value of structured notes as of December 31, 2016:

CUSIP Identification	Actual Cost	Fair Value	Book / Adjusted Carrying Value	Mortgage-Referenced Security (YES/NO)
391164AF7	\$ 526,870	\$ 515,124	\$ 520,744	NO
Total	\$ 526,870	\$ 515,124	\$ 520,744	XXX

- I. 5* Securities - The Company did not have any 5* rated securities.

Note 6 – Joint Ventures, Partnerships and Limited Liability Companies

- a. The Company did not have any individual investment in joint ventures, partnerships or LLCs exceeding 10% of admitted assets for the years ended December 31, 2016 and 2015.
- b. The Company did not have any investment in joint ventures, partnerships and LLCs, therefore, no impairment write-downs were recognized for the years ended December 31, 2016 or 2015.

Note 7 – Investment Income

- a. Accrued investment income consists primarily of interest and dividends. Interest is recognized on an accrual basis and dividends are recorded as earned on the ex-dividend date.
- b. For the year ended December 31, 2016, there was \$1,760 due and accrued investment income excluded from surplus and for the year ended December 31, 2015, there was no due and accrued investment income excluded from surplus.

Note 8 – Derivative Instruments

The company did not have any derivative instruments for the years ended December 31, 2016 or 2015.

Note 9 – Income Taxes

- A. The Company provides for deferred income taxes based on an admissibility limitation of 15% of surplus and a three year reversal/realization period.

1. The net DTA or net deferred tax liability (DTL) recognized in the Company's assets, liabilities and surplus is as follows:

	December 31, 2016		
	Ordinary	Capital	Total
(a) Gross DTAs	\$ 21,397,576	\$ 10,350	\$ 21,407,926
(b) Statutory valuation allowance adjustment	-	-	-
(c) Adjusted gross DTAs	21,397,576	10,350	21,407,926
(d) DTAs nonadmitted	13,733,302	-	13,733,302
(e) Subtotal net admitted DTA	7,664,274	10,350	7,674,624
(f) Total gross DTLs	415,398	1,074,624	1,490,022
(g) Net admitted DTA(L)	<u>\$ 7,248,876</u>	<u>\$ (1,064,274)</u>	<u>\$ 6,184,602</u>
	December 31, 2015		
	Ordinary	Capital	Total
(a) Gross DTAs	\$ 8,393,456	\$ 58,037	\$ 8,451,493
(b) Statutory valuation allowance adjustment	-	-	-
(c) Adjusted gross DTAs	8,393,456	58,037	8,451,493
(d) DTAs nonadmitted	3,847,610	-	3,847,610
(e) Subtotal net admitted DTA	4,545,846	58,037	4,603,883
(f) Total gross DTLs	441,533	415,409	856,942
(g) Net admitted DTA(L)	<u>\$ 4,104,313</u>	<u>\$ (357,372)</u>	<u>\$ 3,746,941</u>
	Change		
	Ordinary	Capital	Total
(a) Gross DTAs	\$ 13,004,120	\$ (47,687)	\$ 12,956,433
(b) Statutory valuation allowance adjustment	-	-	-
(c) Adjusted gross DTAs	13,004,120	(47,687)	12,956,433
(d) DTAs nonadmitted	9,885,692	-	9,885,692
(e) Subtotal net admitted DTA	3,118,428	(47,687)	3,070,741
(f) Total gross DTLs	(26,135)	659,215	633,080
(g) Net admitted DTA(L)	<u>\$ 3,144,563</u>	<u>\$ (706,902)</u>	<u>\$ 2,437,661</u>

NOTES TO FINANCIAL STATEMENTS

2. The amount of adjusted gross DTA admitted under each component and the resulting change by tax character are as follows:

	December 31, 2016		
	Ordinary	Capital	Total
(a) Federal income taxes paid in prior years recoverable through loss carrybacks	\$ 6,174,252	\$ 10,350	\$ 6,184,602
(b) Adjusted gross DTAs expected to be realized (excluding the amount of DTAs from 2(a) above) after application of the threshold limitation (the lesser of 2(b)1 and 2(b)2 below)	-	10,350	10,350
1. Adjusted gross DTAs expected to be realized following the balance sheet date	-	10,350	10,350
2. Adjusted gross DTAs allowed per limitation threshold	35,965,381	10,350	35,965,381
(c) Adjusted gross DTAs (excluding the amount of DTAs from 2(a) and 2(b) above) offset by gross DTLs	1,490,022	-	1,490,022
(d) DTAs admitted as the result of application of SSAP no. 101			
Total (2(a) + 2(b) + 2(c))	<u>\$ 7,664,274</u>	<u>\$ 10,350</u>	<u>\$ 7,674,624</u>

	December 31, 2015		
	Ordinary	Capital	Total
(a) Federal income taxes paid in prior years recoverable through loss carrybacks	\$ 3,737,285	\$ 9,657	\$ 3,746,942
(b) Adjusted gross DTAs expected to be realized (excluding the amount of DTAs from 2(a) above) after application of the threshold limitation (the lesser of 2(b)1 and 2(b)2 below)	-	-	-
1. Adjusted gross DTAs expected to be realized following the balance sheet date	-	-	-
2. Adjusted gross DTAs allowed per limitation threshold	33,137,324	-	33,137,324
(c) Adjusted gross DTAs (excluding the amount of DTAs from 2(a) and 2(b) above) offset by gross DTLs	808,561	48,380	856,941
(d) DTAs admitted as the result of application of SSAP no. 101			
Total (2(a) + 2(b) + 2(c))	<u>\$ 4,545,846</u>	<u>\$ 58,037</u>	<u>\$ 4,603,883</u>

	Change		
	Ordinary	Capital	Total
(a) Federal income taxes paid in prior years recoverable through loss carrybacks	\$ 2,436,967	\$ 693	\$ 2,437,660
(b) Adjusted gross DTAs expected to be realized (excluding the amount of DTAs from 2(a) above) after application of the threshold limitation (the lesser of 2(b)1 and 2(b)2 below)	-	10,350	10,350
1. Adjusted gross DTAs expected to be realized following the balance sheet date	-	10,350	10,350
2. Adjusted gross DTAs allowed per limitation threshold	2,828,057	10,350	2,828,057
(c) Adjusted gross DTAs (excluding the amount of DTAs from 2(a) and 2(b) above) offset by gross DTLs	681,461	(48,380)	633,081
(d) DTAs admitted as the result of application of SSAP no. 101			
Total (2(a) + 2(b) + 2(c))	<u>\$ 3,118,428</u>	<u>\$ (47,687)</u>	<u>\$ 3,070,741</u>

NOTES TO FINANCIAL STATEMENTS

3. The Company's total realization threshold limitations are as follows:

	Years Ended December 31,	
	2016	2015
(a) Ratio percentage used to determine recovery period and threshold limitation amount	11,734%	8,785%
(b) Amount of adjusted capital and surplus used to determine recovery period and threshold limitation in 2(b)2 above.	\$ 239,769,205	\$ 220,915,494

4. The ultimate realization of DTAs depends on the generation of future taxable income during the periods in which the temporary differences are deductible. Management considers the scheduled reversal of DTLs (including the impact of available carryback and carryforward periods), projected taxable income and tax-planning strategies in making this assessment. The impact of tax-planning strategies is as follows:

	December 31, 2016	
	Ordinary	Capital
(a) Determination of adjusted gross DTAs and net admitted DTAs, by tax character as a percentage.		
1. Adjusted Gross DTAs amount from Note 9A1(c)	\$ 21,397,576	\$ 10,350
2. Percentage of adjusted gross DTAs by tax character attributable to the impact of tax planning strategies	-%	-%
3. Net admitted DTAs amount from Note 9A1(g)	\$ 7,248,876	\$ (1,064,274)
4. Percentage of net admitted DTAs by tax character attributable to the impact of tax planning strategies	-%	-%

	December 31, 2015	
	Ordinary	Capital
(a) Determination of adjusted gross DTAs and net admitted DTAs, by tax character as a percentage.		
1. Adjusted Gross DTAs amount from Note 9A1(c)	\$ 8,393,456	\$ 58,037
2. Percentage of adjusted gross DTAs by tax character attributable to the impact of tax planning strategies	-%	-%
3. Net admitted DTAs amount from Note 9A1(g)	\$ 4,104,313	\$ (357,372)
4. Percentage of net admitted DTAs by tax character attributable to the impact of tax planning strategies	-%	-%

	Change	
	Ordinary	Capital
(a) Determination of adjusted gross DTAs and net admitted DTAs, by tax character as a percentage.		
1. Adjusted Gross DTAs amount from Note 9A1(c)	\$ 13,004,120	\$ (47,687)
2. Percentage of adjusted gross DTAs by tax character attributable to the impact of tax planning strategies	-%	-%
3. Net admitted DTAs amount from Note 9A1(g)	\$ 3,144,563	\$ (706,902)
4. Percentage of net admitted DTAs by tax character attributable to the impact of tax planning strategies	--%	-%
(b) Does the Company's tax planning strategies include the use of reinsurance?	Yes <u> </u>	No <u> X </u>

- B. The Company does not have any deferred tax liabilities not recognized.

NOTES TO FINANCIAL STATEMENTS

C. The provision for current tax expense on earnings is as follows:

	Years Ended December 31,		
	2016	2015	Change
1.			
(a) Federal	\$ 25,634,294	\$ 6,658,379	\$ 18,975,915
(b) Foreign	-	-	-
(c) Subtotal	25,634,294	6,658,379	18,975,915
(d) Federal income tax on net capital gains	100,797	102,412	(1,615)
(e) Utilization of capital loss carry-forwards	-	-	-
(f) Other	-	-	-
(g) Federal and foreign income taxes incurred	<u>\$ 25,735,091</u>	<u>\$ 6,760,791</u>	<u>\$ 18,974,300</u>

NOTES TO FINANCIAL STATEMENTS

The tax effects of temporary differences that give rise to significant portions of the DTAs and DTLs are as follows:

	2016	December 31, 2015	Change
2. Deferred Tax Assets:			
(a) Ordinary			
(1) Discounting of unpaid losses	\$ -	\$ -	\$ -
(2) Unearned premium reserve	-	-	-
(3) Policyholder reserves	1,365,845	1,442,988	(77,143)
(4) Investments	-	-	-
(5) Deferred acquisition costs	7,557,217	6,471,395	1,085,822
(6) Policyholder dividends accrual	-	-	-
(7) Fixed assets	-	-	-
(8) Compensation and benefits accrual	-	-	-
(9) Pension accrual	-	-	-
(10) Receivables - nonadmitted	-	-	-
(11) Net operating loss carry-forward	-	-	-
(12) Tax credit carry-forward	-	-	-
(13) Other	12,474,514	479,073	11,995,441
(14) Subtotal	<u>21,397,576</u>	<u>8,393,456</u>	<u>13,004,120</u>
(b) Statutory valuation allowance adjustment	-	-	-
(c) Nonadmitted	<u>13,733,302</u>	<u>3,847,610</u>	<u>9,885,692</u>
(d) Admitted ordinary DTAs (2a14 - 2b - 2c)	<u>7,664,274</u>	<u>4,545,846</u>	<u>3,118,428</u>
(e) Capital			
(1) Investments	10,350	58,037	(47,687)
(2) Net capital loss carry-forward	-	-	-
(3) Real estate	-	-	-
(4) Other	-	-	-
(5) Subtotal	<u>10,350</u>	<u>58,037</u>	<u>(47,687)</u>
(f) Statutory valuation allowance adjustment	-	-	-
(g) Nonadmitted	-	-	-
(h) Admitted capital DTAs (2e5 - 2f - 2g)	<u>10,350</u>	<u>58,037</u>	<u>(47,687)</u>
(i) Admitted DTAs (2d + 2h)	<u>7,674,624</u>	<u>4,603,883</u>	<u>3,070,741</u>
3. Deferred Tax Liabilities:			
(a) Ordinary			
(1) Investments	-	-	-
(2) Fixed Assets	-	-	-
(3) Deferred and uncollected premium	409,764	411,292	(1,528)
(4) Policyholder reserves	-	19,075	(19,075)
(5) Other	5,634	11,166	(5,532)
(6) Subtotal	<u>415,398</u>	<u>441,533</u>	<u>(26,135)</u>
(b) Capital			
(1) Investments	1,074,624	415,409	659,215
(2) Real estate	-	-	-
(3) Other	-	-	-
(4) Subtotal	<u>1,074,624</u>	<u>415,409</u>	<u>659,215</u>
(c) Total DTLs (3a6 + 3b4)	<u>1,490,022</u>	<u>856,942</u>	<u>633,080</u>
4. Net DTA(L) (2i - 3c)	<u>\$ 6,184,602</u>	<u>\$ 3,746,941</u>	<u>\$ 2,437,661</u>

NOTES TO FINANCIAL STATEMENTS

The change in net deferred income taxes is comprised of the following:

	Years Ended December 31,	
	2016	2015
(1) Net DTA(L)	\$ 12,323,353	\$ (1,309,067)
Less: Items not recorded in the change in net deferred income taxes:		
(2) Tax-effect of unrealized gains/(losses)	(10,350)	-
(3) Tax-effect of change in accounting method for pensions	-	-
(4) Change in net deferred income taxes	<u>\$ 12,313,003</u>	<u>\$ (1,309,067)</u>

- D. The components of federal and foreign income tax on operating items are recorded on the Summary of Operations and Capital and Surplus Account and are different from that which would be obtained by applying the prevailing federal income tax rate to operating income before taxes. The significant items causing this difference are as follows:

	Years Ended December 31,	
	2016	2015
(1) Provision computed at statutory rate	\$ 16,135,800	\$ 9,664,689
(2) Nonadmitted assets	(783)	-
(3) Foreign governmental income taxes	-	-
(4) Expense items	43	(11,438)
(5) Investment items	(2,202,223)	(1,818,901)
(6) Tax credits	-	-
(7) Change in reserve valuation basis	-	-
(8) Other	<u>(510,749)</u>	<u>235,508</u>
Total statutory income tax expense (benefit)	<u>\$ 13,422,088</u>	<u>\$ 8,069,858</u>
(9) Federal and foreign income tax benefit	\$ 25,735,091	\$ 6,760,791
(10) Change in net deferred income taxes	<u>(12,313,003)</u>	<u>1,309,067</u>
Total statutory income tax expense (benefit)	<u>\$ 13,422,088</u>	<u>\$ 8,069,858</u>

- E.
- (1) As of December 31, 2016, the Company had no net operating or capital loss carryforwards to include in deferred income taxes. The Company has no total tax credit carryforwards.
 - (2) The Company paid federal income taxes of \$3,948,825 in 2016 and \$4,335,481 in 2015.
 - (3) As of December 31, 2016 and 2015, the Company had no protective deposits recognized as admitted assets.
- F.
- (1) The Company is included in a consolidated United States (U.S.) federal income tax return with its parent, Massachusetts Mutual Life Insurance Company (MassMutual), a mutual life insurance company domiciled in the Commonwealth of Massachusetts, and MassMutual's eligible subsidiaries. The Company also files income tax returns in various states and foreign jurisdictions.
 - (2) The Company, MassMutual, and MassMutual's eligible subsidiaries and certain affiliates (the Parties) have executed and are subject to a written tax allocation agreement (the Agreement). The Agreement sets forth the manner in which the total combined federal income tax is allocated among the Parties. The Agreement provides the Company with the enforceable right to recoup federal income taxes paid in prior years in the event of future net losses, which it may incur. Further, the Agreement provides the Company with the enforceable right to utilize its net losses carried forward as an offset to future net income subject to federal income taxes.
- G.
- (1) Companies are generally required to disclose unrecognized tax benefits, which are the tax effect of positions taken on their tax returns that may be challenged by the various taxing authorities, in order to provide users of financial statements more information regarding potential liabilities. The Company recognizes tax benefits and related reserves in accordance with existing SAP for liabilities, contingencies and impairments of assets.
 - (2) On December 18, 2015, the Preventing Americans from Tax Hikes Act of 2015 (the PATH Act) was enacted and provides for a multi-year extension of this provision through 2019. The PATH Act extends 50% bonus depreciation to 2015 through 2017, it then phases down to 40% for 2018 and 30% for 2019. The extension of these tax provisions are not expected to have a material effect on the Company's financial position or liquidity.
 - (3) The Internal Revenue Service (IRS) has completed its examination of the returns filed for years 2010 and prior. The IRS is currently auditing the years 2011 through 2013 and expects to conclude in early 2017. The Company does not expect a material change in its financial position or liquidity as a result of these audits.

Note 10 – Information Concerning Parent, Subsidiaries and Affiliates

- a. The Company is a wholly owned subsidiary of C.M. Life Insurance Company (C.M. Life), a stock life insurance company domiciled in the state of Connecticut.
- b. The Company did not have any material non-insurance related party transactions during the years ended December 31, 2016 or 2015.
- c. See Schedule Y for SCA activity.

NOTES TO FINANCIAL STATEMENTS

- d. The Company reported \$125,904 as amounts due from parent, subsidiaries and affiliates as of December 31, 2016 and \$281,646 as of December 31, 2015. The Company reported \$2,310,794 as amounts due to parent, subsidiaries and affiliates as of December 31, 2016 and \$2,208,982 as of December 31, 2015. Terms require settlement of these amounts within 30 to 90 days.
- e. The Company has a modified coinsurance (Modco) quota-share reinsurance agreement with MassMutual where the Company cedes 100% of the premium on certain bank-owned life insurance policies. In return, MassMutual pays the Company a stipulated expense allowance, death and surrender benefits. The Company retains the assets and related reserves for payment of future benefits on the ceded policies. The Modco adjustment is the mechanism by which MassMutual funds the reserve on the reinsured portion of the risk. It is needed to adjust for the financial effect of the Company holding the reserves on the ceded coverage rather than MassMutual.

The Company also has a stop-loss agreement with MassMutual under which the Company cedes claims which, in aggregate, exceed 0.70% of the covered volume for any year, with maximum coverage of \$25,000,000 above the aggregate limit. The aggregate limit was \$26,580,728 in 2016 and \$27,886,888 in 2015 and it was not exceeded in either year.

The Company has a quota-share reinsurance agreement with MassMutual in which MassMutual assumes specific plans of insurance on a yearly renewable term basis.

The net amounts outstanding and due from MassMutual for the various reinsurance agreements were \$27,193,102 as of December 31, 2016 and \$27,234,467 as of December 31, 2015. These outstanding balances are due and payable with terms ranging from monthly to annually, depending on the agreement in effect.

The following summarizes reinsurance transactions between the Company and MassMutual:

	Years Ended December 31,	
	2016	2015
Premium expense ceded, related to:		
Stop-loss agreements	\$ (307,860)	\$ (331,585)
Quota-share reimbursement agreements	(7,057,869)	(7,246,897)
Modified coinsurance adjustments ceded, included in fee and other income	(9,330,809)	(15,069,413)
Expense allowances on reinsurance ceded, included in fees and other expense, related to:		
Modified coinsurance agreements	5,738,728	5,631,364
Policyholders' benefits ceded, related to:		
Modified coinsurance agreements	7,959,719	13,714,401
Quota-share reimbursement agreements	4,940,395	1,991,246
Experience refunds (paid) received, related to:		
Stop-loss agreements	76,963	82,898
Modified coinsurance agreements	(1,135)	(451,213)

- f. Pursuant to a management agreement, MassMutual, for a fee, furnishes to the Company, as required, operating facilities, human resources, computer software development and managerial services. Investment and administrative services are also provided to the Company pursuant to a management services agreement with MassMutual. While management believes that these fees are calculated on a reasonable basis, these fees may not necessarily be indicative of the costs that would have been incurred on a stand-alone basis.

The following table summarizes the transactions between the Company and the related parties:

	Years Ended December 31,	
	2016	2015
Fee income:		
Recordkeeping and other services	\$ 700,000	\$ 730,084
Investment advisory income	1,700,000	1,540,537
Fee expense:		
Management and service contracts and cost-sharing arrangements	8,962,070	9,086,299

The Company participates in variable annuity exchange programs with MassMutual, where certain variable annuity contract holders can make a nontaxable exchange of their contracts for enhanced MassMutual variable annuity contracts. The Company did not record any surrender benefits in 2016 or 2015 related to these exchange programs.

- g. All outstanding shares of the Company were owned by its parent.
- h. The Company does not have an investment in its parent.
- i. As of December 31, 2016, the Company did not have an investment in SCAs exceeding 10% of admitted assets.
- j. In 2016, the Company recognized \$6,452 in impairment write-downs on its investments in affiliated bonds.

In 2015, the Company recognized \$2,337 in impairment write-downs on its investments in affiliated bonds.

The Company does not have an impairment write-down of any SCA entities during the statement periods.

NOTES TO FINANCIAL STATEMENTS

- k. The Company has no foreign insurance subsidiary whose value is calculated by adjusting annuity GAAP account value reserves using the Commissioners' Annuity Reserve Valuation Method and the related Actuarial Guidelines.
- l. The Company does not hold an investment in a downstream noninsurance holding company.
- m. The Company does not have investments in foreign or noninsurance SCAs.
- n. The Company does not have any insurance SCAs for which the audited statutory equity reflects a departure from NAIC statutory accounting practices.

Note 11 – Debt

- a. The Company did not have any capital notes or liability for borrowed money as of December 31, 2016 or 2015.
The Company did not have any debt that was considered to be extinguished by in-substance defeasance.
The Company did not set aside assets after the effective date of this statement solely for satisfying debt obligations.
- b. The Company is not a member of the Federal Home Loan Bank (FHLB) therefore it has no FHLB funding agreements.

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

- a. The Company did not have any defined benefit pension plans for which the reporting entity is directly liable.
- b. The Company did not have any pension plans for which the reporting entity is directly liable.
- c. The Company did not have any pension plans for which the reporting entity is directly liable.
- d. The Company did not have any pension plans for which the reporting entity is directly liable.
- e. The Company did not have any defined contribution plans.
- f. The Company did not have multi-employer plans.
- g. Consolidated/Holding Company Plans:
MassMutual charges allocated expenses to the Company based on relative weighted commissions for agents and time studies of its employees. The Company recorded an expense of \$891,540 for the year ended December 31, 2016 and \$867,587 for the year ended December 31, 2015 for these plans.
- h. The Company does not accrue for postemployment benefits and compensated absences since it does not have any employees.
- i. The Company did not have any plans under the Medicare Modernization Act.

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

- (1) The Company had 50,000 shares of common stock authorized, 12,501 shares issued and outstanding as of December 31, 2016. The par value of the common stock is \$200 per share.
- (2) The Company did not have any preferred stock outstanding.
- (3) Without the prior approval of the Insurance Commissioner of the State of Connecticut (the Commissioner), total dividends paid to the Company's shareholder in a twelve month period are limited to the greater of (i) 10% of the Company's surplus as of December 31 of the preceding year or (ii) the net gain from operations for the twelve month period ending on December 31 of the preceding year; each case is determined using statutory accounting policies. In addition, the prior approval of the Commissioner is required if any dividend or distribution exceeds the Company's earned surplus. Under these regulations, \$28,294,439 of shareholder's equity is available for distribution to the shareholder in 2017 without prior regulatory approval.
- (4) The Company did not pay a dividend to C.M. Life in 2016.
- (5) Within the limits of (3) above, there are no restrictions placed on the portion of Company profits that may be paid as ordinary dividends to the stockholder.
- (6) There are no restrictions on unassigned surplus funds.
- (7) The Company did not make any advances to surplus.
- (8) The Company did not have any stock held for special purposes.
- (9) The Company does not have any special surplus funds.
- (10) The portion of unassigned funds (surplus) represented by net unrealized gains and losses (cumulative, net of deferred tax) was (\$19,222) as of December 31, 2016. The Company did not have unassigned funds (surplus) represented by net unrealized gains and losses (cumulative, net of deferred tax) as of December 31, 2015.
- (11) The Company did not have any surplus debentures or similar obligations.
- (12) There were no restatements due to prior quasi-reorganizations.
- (13) There were no quasi-reorganizations in the prior ten years.

Note 14 – Liabilities, Contingencies and Assessments

- a. Contingent commitments:
In the normal course of business, the Company enters into commitments to purchase certain investments. The majority of these commitments have funding periods that extend between one and five years. The Company is not required to fund commitments once the commitment period expires. As of December 31, 2016 or 2015, the Company had no commitments.
- b. Assessments:
The Company is subject to insurance guaranty fund laws in the states in which it does business. These laws assess insurance companies' amounts to be used to pay benefits to policyholders and policy claimants of insolvent insurance companies. Many states

NOTES TO FINANCIAL STATEMENTS

allow these assessments to be credited against future premium taxes. The Company believes such assessments in excess of amounts accrued will not materially impact its financial position, results of operations or liquidity.

- c. Gain contingencies:
No material gain contingencies were realized subsequent to December 31, 2016 through the filing date.
- d. The Company did not have any claims related to extra contractual obligations in 2016.
- e. The Company has no joint and several liabilities.
- f. All other contingencies:
The Company is involved in litigation arising in the normal course of business, which seeks compensatory damages, punitive damages and equitable remedies. Although the Company is not aware of any actions or allegations that reasonably should give rise to a material adverse impact to the Company's financial position or liquidity, the outcome of litigation cannot be foreseen with certainty. It is the opinion of management that the ultimate resolution of these matters will not materially impact the Company's financial position or liquidity. However, the outcome of a particular proceeding may be material to the Company's results of operations for a particular period depending upon, among other factors, the size of the loss and the level of the Company's results of operations for the period.
- g. Regulatory matters:
The Company is subject to governmental and administrative proceedings and regulatory inquiries, examinations and investigations in the ordinary course of its business. In connection with regulatory inquiries, examinations and investigations, the Company has been contacted by various regulatory agencies including, among others, the Securities and Exchange Commission, the U.S. Department of Labor and various state insurance departments and state attorneys general. The Company has cooperated fully with these regulatory agencies with regard to their inquiries, examinations and investigations and has responded to information requests and comments.

Market volatility in the financial services industry over the last several years has contributed to increased scrutiny of the entire financial services industry. Therefore, the Company believes that it is reasonable to expect that proceedings, regulatory inquiries, examinations and investigations into the insurance and financial services industries will continue for the foreseeable future. Additionally, new industry-wide legislation, rules and regulations could significantly affect the insurance and financial services industries as a whole. It is the opinion of management that the ultimate resolution of these regulatory inquiries, examinations, investigations, legislative and regulatory changes of which we are aware will not materially impact the Company's financial position or liquidity. However, the outcome of a particular matter may be material to the Company's operating results for a particular period depending upon, among other factors, the financial impact of the matter and the level of the Company's results of operations for the period.

Note 15 – Leases

The Company did not have any lease obligations.

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

There were no contracts for the years ended December 31, 2016 or 2015.

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

- a. During 2016 and 2015, the Company did not transfer any receivables that that were reported as sales.
- b. Transfer and Servicing of Financial Assets:
 - (1) The Company did not participate in securities lending as of December 31, 2016 or 2015.
 - (2) The Company did not have any servicing assets or liabilities in 2016 or 2015.
 - (3) The Company did not have any servicing assets or liabilities in 2016 or 2015.
 - (4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2016 or 2015.
 - (5) The Company did not have any transfers of financial assets accounted for as secured borrowing in 2016 or 2015.
 - (6) The Company did not have any transfers of receivables with recourse in 2016 or 2015.
 - (7) See Note 5e2 "Repurchase Agreements".
- c. Wash sales:
 - (1) In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days of the sale date to enhance the Company's yield on its investment portfolio.
 - (2) The Company did not sell any securities with the NAIC Designation 3 or below for the year ended December 31, 2016 or 2015, that were reacquired within 30 days of the sale date.

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

The Company did not write any accident and health plans. Therefore, the Company did not have any uninsured accident and health plans.

Note 19 – Direct Premium Written/Produced By Managing General Agents/Third Party Administrators

The Company did not have any premium written through managing general agents or third party administrators.

Note 20 – Fair Value Measurements

- a. Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The authoritative guidance around fair value establishes a measurement framework that includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs to valuation techniques into three levels. Each level reflects a unique description of the inputs that are significant to the fair value measurements. The levels of the fair value hierarchy are as follows:

Level 1 – Observable inputs in the form of quoted prices for identical instruments in active markets.

Level 2 – Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be derived from observable market data for substantially the full term of the assets or liabilities.

NOTES TO FINANCIAL STATEMENTS

Level 3 – One or more unobservable inputs that are supported by little or no market activity and are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using internal models, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

When available, the Company generally uses unadjusted quoted market prices from independent sources to determine the fair value of investments, and classifies such items within Level 1 of the fair value hierarchy. If quoted prices are not available, prices are derived from observable market data for similar assets in an active market or obtained directly from brokers for identical assets traded in inactive markets. Investments that are priced using these inputs are classified within Level 2 of the fair value hierarchy. When some of the necessary observable inputs are unavailable, fair value is based upon internally developed models. These models use inputs not directly observable or correlated with observable market data. Typical inputs, which are integrated in the Company's internal discounted cash flow models and discounted earnings models include, but are not limited to, issuer spreads derived from internal credit ratings and benchmark yields such as the LIBOR, cash flow estimates and earnings before interest, taxes, depreciation and amortization estimates. Investments that are priced with such unobservable inputs are classified within Level 3 of the fair value hierarchy.

The Company has established and maintains policies and guidelines that govern its valuation methodologies and their consistent application. These policies and guidelines address the use of inputs, price source hierarchies and provide controls around the valuation processes. These controls include appropriate review and analysis of prices against market activity or indicators for reasonableness, approval of price source changes, price overrides, methodology changes and classification of fair value hierarchy levels. The valuation policies and guidelines are reviewed and updated as appropriate.

Annually, the Company reviews the primary pricing vendor to validate that the inputs used in that vendor's pricing process are deemed to be market observable as defined above. While the Company was not provided access to proprietary models of the vendor, the reviews have included on-site walk-throughs of the pricing process, methodologies and control procedures for each asset class and level for which prices are provided. The review also included an examination of the underlying inputs and assumptions for a sample of individual securities across asset classes. In addition, the Company and its pricing vendors have an established challenge process in place for all security valuations, which facilitates identification and resolution of prices that fall outside expected ranges. The Company believes that the prices received from the pricing vendors are representative of prices that would be received to sell the assets at the applicable measurement date (exit prices) and are classified appropriately in the hierarchy.

The fair value of individual annuity and supplementary contracts is determined using one of several methods based on the specific contract type. For short-term contracts, generally less than 30 days, the fair value is assumed to be the book value. For investment-type contracts, the fair value is determined by calculating the present value of future cash flows discounted at current market interest rates, the risk-free rate or a current pricing yield curve based on pricing assumptions using assets of a comparable corporate bond quality. Annuities are valued using cash flow projections from the Company's asset-liability management analysis.

- The following presents the Company's fair value hierarchy for assets and liabilities that are carried at fair value:

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Bonds:				
Parent, subsidiaries and affiliates	\$ -	\$ 524,103	\$ -	\$ 524,103
Separate account assets ⁽¹⁾	922,485,384	2,302,419,763	-	3,224,905,147
Total financial assets carried at fair value	<u>\$ 922,485,384</u>	<u>\$ 2,302,943,866</u>	<u>\$ -</u>	<u>\$ 3,225,429,250</u>

⁽¹⁾\$1,087,146,232 of book value separate account assets are not carried at fair value and, therefore, are not included in this table.

For the year ended December 31, 2016, there were no significant transfers between Level 1 and Level 2.

	December 31, 2015			
	Level 1	Level 2	Level 3	Total
Financial assets:				
Separate account assets ⁽¹⁾	\$ 920,856,788	\$ 2,266,948,730	\$ -	\$ 3,187,805,518
Total financial assets carried at fair value	<u>\$ 920,856,788</u>	<u>\$ 2,266,948,730</u>	<u>\$ -</u>	<u>\$ 3,187,805,518</u>

⁽¹⁾\$1,091,012,604 of book value separate account assets are not carried at fair value and, therefore, are not included in this table.

For the year ended December 31, 2015, there were no significant transfers between Level 1 and Level 2.

- The Company does not have any Level 3 financial instruments that are carried at fair value.
- The Company reviews the fair value hierarchy classifications at each reporting period. Overall, reclassifications between levels occur when there are changes in the observability of inputs and market activity used in the valuation of a financial asset or liability. Such reclassifications are reported as transfers between levels at the beginning fair value for the reporting period in which the changes occur. Given the types of assets classified as Level 1 (primarily equity securities and mutual fund investments), transfers between Level 1 and Level 2 measurement categories are expected to be infrequent. Transfers into and out of Level 3 are summarized in the schedule of changes in Level 3 assets and liabilities.
- Valuation Techniques and Inputs**

The Company determines the fair value of its investments using primarily the market approach or the income approach. The

NOTES TO FINANCIAL STATEMENTS

use of quoted prices for identical assets and matrix pricing or other similar techniques are examples of market approaches, while the use of discounted cash flow methodologies is an example of the income approach. The Company attempts to maximize the use of observable inputs and minimize the use of unobservable inputs in selecting whether the market or the income approach is used.

A description of the significant valuation techniques and inputs to the determination of estimated fair value for the more significant asset and liability classes measured at fair value on a recurring basis and categorized within Level 2 and Level 3 of the fair value hierarchy is as follows:

Separate account assets - These assets primarily include bonds (industrial and miscellaneous; U.S. government and agencies) and derivatives. Their fair values are determined as follows:

Bonds (Industrial and miscellaneous) - These securities are principally valued using the market or the income approaches. Level 2 valuations are based primarily on quoted prices in markets that are not active, broker quotes, matrix pricing or other similar techniques that use standard market observable inputs such as benchmark yields, spreads versus benchmark yields, new issuances, issuer rating, duration, and trades of identical or comparable securities. Privately placed securities are valued using discounted cash flow models using standard market observable inputs, and inputs derived from, or corroborated by, market observable data including market yield curve, duration, call provisions, observable prices and spreads for similar publicly traded or privately traded issues that incorporate the credit quality and industry sector of the issuer. This level also includes securities priced by independent pricing services that use observable inputs. Valuations based on matrix pricing or other similar techniques that utilize significant unobservable inputs or inputs that cannot be derived principally from, or corroborated by, observable market data, including adjustments for illiquidity, delta spread adjustments or spreads to reflect industry trends or specific credit-related issues are classified as Level 3. In addition, inputs including quoted prices for identical or similar securities that are less liquid and based on lower levels of trading activity than securities classified in Level 2 are classified as Level 3.

Bonds (U.S. government and agencies) - These securities are principally valued using the market approach. Level 2 valuations are based primarily on quoted prices in markets that are not active, or using matrix pricing or other similar techniques using standard market observable inputs such as the benchmark U.S. Treasury yield curve, the spreads versus the U.S. Treasury yield curve for the identical security and comparable securities that are actively traded.

Derivative assets and liabilities - These financial instruments are primarily valued using the market approach. The estimated fair value of derivatives is based primarily upon quotations obtained from counterparties and independent sources, such as quoted market values received from brokers. These quotations are compared to internally derived prices and a price challenge is lodged with the counterparties and an independent source when a significant difference cannot be explained by appropriate adjustments to the internal model. When quoted market values are not reliable or available, the value is based upon an internal valuation process using market observable inputs that other market participants would use. Significant inputs to the valuation of derivative financial instruments include, overnight index swaps and LIBOR basis curves, interest rate volatility, swap yield curve, currency spot rates, cross currency basis curves and dividend yields. Due to the observability of the significant inputs to these fair value measurements, they are classified as Level 2.

The use of different assumptions or valuation methodologies may have a material impact on the estimated fair value amounts. For the periods presented, there were no significant changes to the Company's valuation techniques.

5. Derivative assets and liabilities fair value disclosures on a gross basis are included in paragraph 1 above. Since there are no derivative assets or liabilities classified in Level 3, the reconciliation disclosures required under paragraphs 2 through 4 are not applicable.
- b. The Company provides additional fair value information in Note 21 – Other Items.
- c. The following presents a summary of the carrying values and fair values of the Company's financial instruments:

	December 31, 2016					
	Aggregate	Admitted	Level 1	Level 2	Level 3	Not Practicable (Carrying Value)
	Fair Value	Assets				
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 39,216,346	\$ 39,357,823	-	\$ 39,216,346	-	-
Special revenue	72,640	66,143	-	72,640	-	-
Industrial and miscellaneous	266,229,273	264,388,709	-	252,459,408	13,769,865	-
Parent, subsidiaries and affiliates	6,442,873	6,404,131	-	6,442,873	-	-
Mortgage loans - residential	3,921,346	4,007,088	-	-	3,921,346	-
Cash, cash equivalents and short-term investments	62,691,625	62,691,625	(2,302,765)	64,994,390	-	-
Separate account assets	4,320,299,668	4,312,051,379	923,105,179	3,381,127,144	16,067,345	-
Financial liabilities:						
Individual annuity contracts	2,225,733	3,061,780	-	-	2,225,733	-
Supplementary contracts	11,538,373	11,424,132	-	-	11,538,373	-

NOTES TO FINANCIAL STATEMENTS

December 31, 2015

	Aggregate Fair Value	Admitted Assets	Level 1	Level 2	Level 3	Not Practicable (Carrying Value)
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 54,012,879	\$ 54,269,462	-	\$ 54,012,879	-	-
Special revenue	97,732	88,536	-	97,732	-	-
Industrial and miscellaneous	167,805,616	166,830,245	-	156,151,861	11,653,755	-
Parent, subsidiaries and affiliates	1,667,302	1,640,703	-	1,667,302	-	-
Mortgage loans - residential	5,745,384	5,847,458	-	-	5,745,384	-
Cash, cash equivalents and short-term investments	61,289,428	61,289,428	1,211,195	60,078,233	-	-
Separate account assets	4,285,418,011	4,278,818,122	920,856,788	3,345,522,236	19,038,987	-
Financial liabilities:						
Individual annuity contracts	2,266,224	3,168,097	-	-	2,266,224	-
Supplementary contracts	9,928,086	9,829,788	-	-	9,928,086	-

d. For the year ended December 31, 2016, the Company had no investments where it was not practicable to estimate fair value.

Note 21 – Other Items

a. There were no unusual or infrequent items requiring disclosure.

b. There were no troubled debt restructurings that occurred during the period for which the financial statements are presented.

c. Other disclosures:

The Company had assets on deposit with government authorities or trustees, as required by law, in the amount of \$4,265,185 as of December 31, 2016 and \$4,234,661 as of December 31, 2015.

Business risks

The Company operates in a business environment subject to various risks and uncertainties. The principal risks include insurance and underwriting risks, investment and interest rate risks and credit risk.

Insurance and underwriting risks

The Company prices its products based on estimated benefit payments reflecting assumptions with respect to mortality, longevity, persistency, interest rates and other factors. If actual policy experience emerges that is significantly and adversely different from assumptions used in product pricing, the effect could be material to the profitability of the Company. The Company reinsures certain life insurance and other long-term care insurance policies to mitigate the impact of its underwriting risk.

Investment and interest rate risks

The fair value, cash flows and earnings of investments can be influenced by a variety of factors including changes in interest rates, credit spreads, equity markets, portfolio asset allocation and general economic conditions. The Company employs a rigorous asset/liability management process to help mitigate the economic impacts of various investment risks, in particular interest rate risk. By effectively matching the market sensitivity of assets with the liabilities they support, the impact of interest rate changes is addressed, on an economic basis, as the change in the value of the asset is offset by a corresponding change in the value of the supported liability.

The levels of U.S. interest rates are influenced by U.S. monetary policies and by the relative attractiveness of U.S. markets to investors versus other global markets. As interest rates increase, certain debt securities may experience amortization or prepayment speeds that are slower than those assumed at purchase, impacting the expected maturity of these securities and the ability to reinvest the proceeds at the higher yields. Rising interest rates may also result in a decrease in the fair value of the investment portfolio. As interest rates decline, certain debt securities may experience accelerated amortization and prepayment speeds than what was assumed at purchase. During such periods, the Company is at risk of lower net investment income as it may not be able to reinvest the proceeds at comparable yields. Declining interest rates may also increase the fair value of the investment portfolio.

Interest rates also have an impact on the Company's products with guaranteed minimum payouts and on interest credited to account holders. As interest rates decrease, investment spreads may contract as crediting rates approach minimum guarantees, resulting in an increased liability.

In periods of increasing interest rates, policy loans, surrenders and withdrawals may increase as policyholders seek investments with higher perceived returns. This could result in cash outflows requiring the Company to sell invested assets at a time when the prices of those assets are adversely affected by the increase in market interest rates, which could cause the Company to realize investment losses.

Credit and other market risks

The Company manages its investments to limit credit and other market risks by diversifying its portfolio among various security types and industry sectors as well as purchasing credit default swaps to transfer some of the risk.

Stressed conditions, volatility and disruptions in capital markets or financial asset classes can have an adverse effect on the Company, in part because the Company has a large investment portfolio and assets supporting the Company's insurance liabilities are sensitive to changing market factors. Market factors, including interest rates, credit spread quality, equity prices, consumer spending, business investment, government spending, the volatility and strength of the capital markets, deflation and inflation, all affect the business and economic environment and, ultimately, the profitability of the Company's business. Disruptions in one market or asset class can also spread to other markets or asset classes. Upheavals in the financial markets can also affect the Company's business through their effects on general levels of economic activity, employment and customer behavior.

The CMBS, RMBS and leveraged loan sectors are sensitive to evolving conditions that can impair the cash flows realized by investors and is subject to uncertainty. Management's judgment regarding OTTI and estimated fair value depends upon the evolving investment sector and economic conditions. It can also be affected by the market liquidity, a lack of which can make it difficult to obtain accurate market prices for RMBS and other investments, including CMBS and leveraged loans. Any deterioration in economic fundamentals, especially related to the housing sector could affect management's judgment regarding OTTI.

NOTES TO FINANCIAL STATEMENTS

The Company has investments in structured products exposed primarily to the credit risk of corporate bank loans, corporate bonds or credit default swap contracts referencing corporate credit risk. Most of these structured investments are backed by corporate loans and are commonly known as collateralized loan obligations that are classified as CDOs. The portfolios backing these investments are actively managed and diversified by industry and individual issuer concentrations. Due to the complex nature of CDOs and the reduced level of transparency to the underlying collateral pools for many market participants, the recovery in CDO valuations generally lags the overall recovery in the underlying assets. Management believes its scenario analysis approach, based primarily on actual collateral data and forward looking assumptions, does capture the credit and most other risks in each pool. However, in a rapidly changing economic environment, the credit and other risks in each collateral pool will be more volatile and actual credit performance of CDOs may differ from the Company's assumptions.

The Company continuously monitors its investments and assesses their liquidity and financial viability; however, the existence of the factors described above, as well as other market factors, could negatively impact the market value of the Company's investments. If the Company sells its investments prior to maturity or market recovery, these investments may yield a return that is less than the Company otherwise would have been able to realize.

Asset-based fees calculated as a percentage of the separate account assets are a source of revenue to the Company. Gains and losses in the investment markets may result in corresponding increases and decreases in the Company's separate account assets and related revenue.

Political Uncertainties

Political events, such as the ongoing volatility with respect to the European Union, may trigger or exacerbate the risk factors described above. Whether those underlying risk factors are driven by politics or not, the Company's dynamic approach to managing risks enables us to utilize the mitigating actions described above to attempt to reduce the potential impact of each underlying risk factor on the Company.

- d. The Company did not receive any business interruption recoveries in 2016.
- e. The Company did not have unused transferable or non-transferable state tax credits as of December 31, 2016.
- f. Subprime mortgage related risk exposure:
As of December 31, 2016 and 2015, the Company did not have any direct exposure through investments in subprime mortgage loans.

- (1) Direct exposure through other investments:

RMBS risk exposure:

Portfolios of ABS, including RMBS and CMBS, are evaluated on a periodic basis using scenarios customized by collateral type. The Company performs sensitivity analysis on defaults as loan-to-values change, and on defaults as prepayments change using default curves under various scenarios. The Company combines scenario analysis with a monthly surveillance process in which it compares actual delinquencies and defaults to expectations established at the time securities are acquired as well as expectations considering current market conditions, and performs a statistical review to determine potential losses relative to credit support of troubled loan exposures on a transaction-by-transaction basis.

Management used a combination of external vendor prices, broker quotations and internal models for purposes of deriving fair value. Internal inputs used in the determination of fair value included estimates of prepayment speeds, default rates, discount rates and collateral values, among others. Structure characteristics and results of cash flow priority are also considered. Fair values resulting from internal models are those expected to be received in an orderly transaction between willing market participants at the financial statement date.

The Company holds certain investments backed by pools of residential mortgages. The majority of these investments are included in bonds. The mortgages in these pools have varying risk characteristics and are commonly categorized as being of U.S. government agency, non-agency prime, Alt-A and subprime borrower quality. The Alt-A category includes option adjustable rate mortgages and the subprime category includes 'scratch and dent' or reperforming pools, high loan-to-value pools, and pools where the borrowers have very impaired credit but the average loan-to-value is low, typically 70% or below at origination. In identifying Alt-A and subprime exposure, management used a combination of qualitative and quantitative factors, including FICO scores and loan-to-value ratios.

Residential mortgage loan pools are homogeneous residential mortgage loans substantially backed by FHA and VA guarantees. The Company purchases seasoned loan pools, most of which are FHA insured or VA guaranteed. The Company does not originate any residential mortgages but invests in residential mortgage loan pools which may contain mortgages of subprime credit quality. As of December 31, 2016 and 2015, the Company did not have any direct subprime exposure through purchases of unsecuritized whole-loan pools.

The actual cost reduced by paydowns, carrying value, fair value and related gross realized losses from OTTI of the Company's investments with significant Alt-A and subprime exposure were as follows:

	December 31, 2016			Year Ended
	Actual	Carrying	Fair	December 31, 2016
Alt-A:	Cost	Value	Value	OTTI
a. Residential mortgage-backed securities	\$ 2,025,204	\$ 1,322,448	\$ 1,746,541	\$ 19
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in subsidiary and controlled affiliates	-	-	-	-
f. Other assets	-	-	-	-
g. Total	<u>\$ 2,025,204</u>	<u>\$ 1,322,448</u>	<u>\$ 1,746,541</u>	<u>\$ 19</u>

NOTES TO FINANCIAL STATEMENTS

	December 31, 2016			Year Ended December 31, 2016
	Actual	Carrying	Fair	OTTI
	Cost	Value	Value	
Subprime:				
a. Residential mortgage-backed securities	\$ 3,193,121	\$ 1,803,842	\$ 2,235,591	\$ 6,452
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in subsidiary and controlled affiliates	-	-	-	-
f. Other assets	-	-	-	-
g. Total	<u>\$ 3,193,121</u>	<u>\$ 1,803,842</u>	<u>\$ 2,235,591</u>	<u>\$ 6,452</u>

	December 31, 2015			Year Ended December 31, 2015
	Actual	Carrying	Fair	OTTI
	Cost	Value	Value	
Alt-A:				
a. Residential mortgage-backed securities	\$ 2,337,013	\$ 1,542,651	\$ 1,965,258	\$ -
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in subsidiary and controlled affiliates	-	-	-	-
f. Other assets	-	-	-	-
g. Total	<u>\$ 2,337,013</u>	<u>\$ 1,542,651</u>	<u>\$ 1,965,258</u>	<u>\$ -</u>

	December 31, 2015			Year Ended December 31, 2015
	Actual	Carrying	Fair	OTTI
	Cost	Value	Value	
Subprime:				
a. Residential mortgage-backed securities	\$ 3,612,086	\$ 1,934,794	\$ 2,412,225	\$ 2,337
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in subsidiary and controlled affiliates	-	-	-	-
f. Other assets	-	-	-	-
g. Total	<u>\$ 3,612,086</u>	<u>\$ 1,934,794</u>	<u>\$ 2,412,225</u>	<u>\$ 2,337</u>

(2) The Company has no underwriting exposure to subprime mortgage risk through Mortgage Guaranty or Financial Guaranty insurance coverage.

g. Retained asset accounts:

(1) The Company offers the use of retained asset accounts as one of the options available to beneficiaries. This option must be affirmatively elected and is not treated as a default. An unaffiliated third party provider services certain aspects of the retained asset accounts. Beneficiaries draw funds from retained asset accounts utilizing drafts. The Company funds those drafts through an unaffiliated bank. During the reporting year, the interest earned by beneficiaries was an annual effective rate of 0.25% and did not change within the reporting year. There is no fee charged to the beneficiary to establish this account. There are no maintenance or service fees. A \$12 stop payment fee, a \$10 insufficient funds fee and a \$2 duplicate draft fee will apply. Assets and liabilities relating to retained asset accounts remain with the Company and are reported within the Company's financial statements as assets and supplemental contracts without life contingencies.

(2)

	Retained Asset Accounts In Force December 31,			
	2016		2015	
	Number	Balance	Number	Balance
<u>Account aging categories:</u>				
a. Up to and including 12 months	5	\$ 533,222	11	\$ 1,047,109
b. 13 to 24 months	6	266,396	7	555,173
c. 25 to 36 months	7	427,586	2	62,619
d. 37 to 48 months	2	11,056	5	334,569
e. 49 to 60 months	3	292,422	-	-
f. Over 60 months	1	-	-	-
g. Total	<u>24</u>	<u>\$ 1,530,682</u>	<u>25</u>	<u>\$ 1,999,470</u>

NOTES TO FINANCIAL STATEMENTS

- g. Ceding entities that utilize captive reinsurers to assume reserves subject to the XXX/AXXX captive framework.
- (1) Ceding reinsurers in which a risk-based capital shortfall exists per the risk-based capital XXX/AXXX captive reinsurance consolidated exhibit:
- a. Captives with risk-based capital shortfall

Cession ID	NAIC Company Code	ID Number	Name of Captive Insurer	Amount of risk-based capital shortfall
			None	\$ -
			None	\$ -
			None	\$ -
Total				<u><u>-</u></u>

- b. Effect of risk-based capital shortfall on total adjusted capital (TAC)

1. Total adjusted capital (TAC) (Five-Year Historical Line 30)	\$	-
2. Risk-based capital shortfall (Sum of g(1)a1 Column 5)	\$	-
3. Total adjusted capital (TAC) before risk-based capital shortfall (g(1)b1 + g(1)b2))	\$	-

- (2) Captive reinsurers for which a non-zero primary security shortfall is shown on the risk-based capital XXX/AXXX reinsurance primary security shortfall by cession exhibit:

Cession ID	NAIC Company Code	ID Number	Name of Captive Insurer	Amount of primary security shortfall
			None	\$ -
			None	\$ -
			None	\$ -
Total				<u><u>-</u></u>

Note 24 – Retrospectively Rated Contracts and Contracts Subject to Redetermination

The Company does not issue group health insurance and therefore did not issue retrospectively rated contracts or contracts subject to redetermination.

Note 25 – Change in Incurred Losses and Loss Adjustment Expenses

There was no increase to reserves in 2016 for incurred losses and loss adjustment expenses attributable to insured events of prior years, which were considered corrections of prior year errors.

Note 26 – Intercompany Pooling Arrangements

The Company did not have any intercompany pooling arrangements.

Note 27 – Structured Settlements

The Company did not enter into structured settlement agreements with other life insurers to resolve claims.

Note 28 – Health Care Receivables

The Company did not issue any business that would give rise to pharmaceutical rebates or risk sharing receivables.

Note 29 – Participating Policies

The Company did not issue participating policies.

Note 30 – Premium Deficiency Reserves

The Company did not have any liability for premium deficiency on accident and health contracts or property/casualty contracts.

Note 31 – Reserves for Life Contracts and Annuity Contracts

- (1) The Company waives deduction of deferred fractional premium at death and returns any portion of the final premium beyond the date of death. Reserves are computed using continuous functions to reflect these practices. Surrender values were not promised in excess of the legally computed reserves.
- (2) The Company charges a higher premium on certain contracts that cover substandard mortality risk. For these policies, the reserve calculations are based on a substandard mortality rate, which is a multiple of the standard mortality tables.
- (3) The Company did not have any insurance in force as of December 31, 2016, for which the gross premium was less than the net premium according to the standard valuation set by the Department.
- (4) Tabular interest was determined for Variable life general account reserves using a formula that applies a weighted average credited rate to the mean account value.
- (5) Liabilities for investment-type contracts such as supplementary contracts not involving life contingencies are based on account value or accepted actuarial methods using applicable interest rates. Refer to Note 20 a. "Fair Value Measurements" for information on the Company's policy for determining fair value.

NOTES TO FINANCIAL STATEMENTS

(6) The details for other changes:

ITEM	Total	Industrial Life	Ordinary			Credit Life Group and Individual	Group	
			Life Ins.	Individual Annuities	Supplementary Contracts		Life Ins.	Annuities
None	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

	December 31, 2016				
	General Account	Separate Account w/ Guarantees	Separate Account Nonguaranteed	Total	% of Total
a. Subject to discretionary withdrawal:					
(1) With market value adjustment	\$ 2,140,128	\$ -	\$ -	2,140,128	4 %
(2) At book value less current surrender charge of 5% or more	-	-	-	-	-
(3) At fair value	-	-	40,005,301	40,005,301	73
(4) Total with market value adjustment or at fair value	2,140,128	-	40,005,301	42,145,429	78
(5) At book value without adjustment	11,424,132	-	-	11,424,132	21
b. Not subject to discretionary withdrawal provision	806,212	-	-	806,212	1
c. Total (gross)	14,370,472	-	40,005,301	54,375,773	100
d. Reinsurance ceded	-	-	-	-	-
e. Total (net)* (gross less reinsurance ceded)	\$ 14,370,472	\$ -	\$ 40,005,301	\$ 54,375,773	100 %

*Reconciliation of total annuity actuarial reserves and deposit-type fund liabilities.

f. Life and Accident and Health Annual Statement:	
(1) Exhibit 5, annuities section, total (net)	\$ 2,822,073
(2) Exhibit 5, supplementary contracts with life contingencies section, total (net)	-
(3) Exhibit 7, deposit-type contracts Column 1, Line 14	11,548,399
(4) Subtotal	14,370,472
Separate Accounts Annual Statement:	
(5) Exhibit 3, annuities section, total (net)	40,005,301
(6) Exhibit 3, supplementary contracts section, total (net)	-
(7) Policyholders dividend and coupon accumulations	-
(8) Policyholder premiums	-
(9) Guaranteed interest contracts	-
(10) Other contract deposit funds	-
(11) Subtotal	40,005,301
(12) Combined total	\$ 54,375,773

g. The Company is not a member of the FHLB therefore it has no FHLB funding agreements.

Note 33 – Premium and Annuity Considerations Deferred and Uncollected

a. Deferred and uncollected life insurance premiums and annuity considerations as of December 31, 2016, were as follows:

Type	Gross	Net of Loading
(1) Industrial	\$ -	\$ -
(2) Ordinary new business	-	-
(3) Ordinary renewal	(1,919,834)	(1,931,433)
(4) Credit life	-	-
(5) Group life	(191,696)	(191,696)
(6) Group annuity	-	-
(7) Totals	\$ (2,111,530)	\$ (2,123,129)

Note 34 – Separate Accounts

a. Separate account activity:

- (1) Separate accounts are segregated funds administered and invested by the Company. Selection of the separate account investments is directed by group and individual variable annuity, variable life and other insurance contract holders/policyholders. The returns produced by separate account assets increase or decrease separate account reserves. Separate account assets consist principally of marketable securities reported at fair value. Except for the Company's seed money, as noted below, separate account assets can only be used to satisfy separate account liabilities and are not available to satisfy the general obligations of the Company. Separate account administrative and investment advisory fees are included in fees and other income.

The separate account classification of all separate account products for the Company is supported by state statute Connecticut Laws Title 38a, Chapter 700b, Sections 38a-433 & 459.

NOTES TO FINANCIAL STATEMENTS

- (2) In accordance with the products recorded within the separate accounts, some are considered legally insulated whereas others are not legally insulated from the general account. The legal insulation of the separate account products prevents assets other than seed money or amounts in a supplemental account from being generally available to satisfy claims resulting from the general account.

As of December 31, 2016 and 2015, the Company's NAIC Separate Account Annual Statement included Separate Accounts with legally insulated products of \$4,312,051,379 and \$4,261,455,504, respectively. Assets backing products which are not legally insulated are available to satisfy general obligations of the Company. The assets backing legally insulated products from the general account as of December 31, 2016 are attributed to the following:

	Separate Account Assets	
	Legally Insulated	Not Legally Insulated
Product/Transaction:		
Stable Value Bank-Owned Life Insurance	\$ 2,264,393,436	\$ -
Bank-Owned Life Insurance - Guaranteed	1,087,146,232	15,349,830
Individual Variable Universal Life	688,935,153	-
Corporate-Owned Life Insurance	231,545,801	-
Individual Variable Annuity	40,030,757	-
Total	<u>\$ 4,312,051,379</u>	<u>\$ 15,349,830</u>

- (3) In accordance with the products/transactions recorded within the separate accounts, some separate account liabilities are guaranteed by the general account. Reserves for guarantees covering death benefits or minimum rates of return are held in the general account. If the investment proceeds are insufficient to cover the rate of return guaranteed for the product or the guaranteed death benefit, the policyholder proceeds will be remitted by the general account.

As of December 31, 2016, the general account of the Company had a maximum guarantee for separate account liabilities of \$7,427,245. To compensate the general account for the risk taken, the separate accounts have paid risk charges as follows for the past five years:

2016	\$
2015	
2014	
2013	
2012	

For the year ended December 31, 2016, the general account of the Company had paid \$517,611 toward separate account guarantees. The total separate account guarantees paid by the general account for the preceding years ending December 31, 2015, 2014, 2013, and 2012 was \$386,032, \$163,645, \$610,923, and \$499,761, respectively.

The following separate account products would be classified differently under GAAP than under Statutory accounting principles:

Condition That Requires GAAP General Account Reporting

Product Identifier:

Stable Value Bank-Owned Life Insurance	GAAP general account classification/Investment performance
Bank-Owned Life Insurance - Guaranteed	GAAP general account classification/Investment performance

- (4) The Company does not engage in securities lending transactions within the separate accounts.

- b. General nature and characteristics of separate account business:

The Company has guaranteed separate accounts classified as nonindexed to fund a long-term interest guarantee in excess of a year that does not exceed 4%. The Company has nonguaranteed separate accounts that are variable accounts where the benefit is determined by the performance and/or market value of the investments held in the separate account with incidental risk, notional expense and minimum death benefit guarantees.

NOTES TO FINANCIAL STATEMENTS

Information regarding the separate accounts of the Company as of and for the year ended December 31, 2016 is as follows:

	Index	Nonindexed Guarantee Less than/ Equal to 4%	Nonindexed Guarantee More than 4%	Nonguaranteed Separate Accounts	Total
(1) Premiums, considerations or deposits for the year ended December 31, 2016	\$ -	\$ -	\$ -	34,228,357	\$ 34,228,357
Reserves at December 31, 2016:					
(2) For accounts with assets at:					
a. Fair value	\$ -	\$ -	\$ -	3,197,382,963	\$ 3,197,382,963
b. Amortized cost	-	1,093,245,701	-	-	1,093,245,701
c. Total Reserves*	\$ -	\$ 1,093,245,701	\$ -	\$ 3,197,382,963	\$ 4,290,628,664
(3) By withdrawal characteristics:					
a. Subject to discretionary withdrawal:	\$ -	\$ -	\$ -	\$ -	-
1. With market value adjustment	-	-	-	-	-
2. At book value without market value adjustment and with current surrender charge of 5% or more	-	-	-	-	-
3. At fair value	-	-	-	3,197,382,963	3,197,382,963
4. At book value, without market value adjustment and with current surrender charge of less than 5%	-	1,093,245,701	-	-	1,093,245,701
5. Subtotal	\$ -	\$ 1,093,245,701	\$ -	\$ 3,197,382,963	\$ 4,290,628,664
b. Not subject to discretionary withdrawal	-	-	-	-	-
c. Total	\$ -	\$ 1,093,245,701	\$ -	\$ 3,197,382,963	\$ 4,290,628,664
(4) Reserves for Assets Default Risk in Lieu of AVR	\$ -	\$ -	\$ -	\$ -	-

*Line 2(c) should equal Line 3(h)

c. Reconciliation of net transfers (from) to separate accounts is as follows:

	December 31, 2016
(1) Transfers as reported in the Summary of Operations of the Separate Account Statement:	
(a) Transfers to separate accounts (Page 4, Line 1.4 and 2)	\$ 34,228,357
(b) Transfers from separate accounts (Page 4, Line 10)	(69,798,506)
(c) Net transfers to (from) separate accounts (a) - (b)	(35,570,149)
(2) Reconciling adjustments:	
(a) Net deposits on deposit-type liabilities	-
(3) Transfers as reported in the Summary of Operations of the Life, Accident & Health Annual Statement	\$ (35,570,149)
(1c) + (2) = (Page 4, Line 26)	

Note 35 – Loss/Claim Adjustment Expenses

The Company did not have any loss/claim adjustment expenses.

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES GENERAL

- 1.1 Is the reporting entity a member of an Insurance Holding Company System consisting of two or more affiliated persons, one or more of which is an insurer? Yes [X] No []
If yes, complete Schedule Y, Parts 1, 1A and 2
- 1.2 If yes, did the reporting entity register and file with its domiciliary State Insurance Commissioner, Director or Superintendent, or with such regulatory official of the state of domicile of the principal insurer in the Holding Company System, a registration statement providing disclosure substantially similar to the standards adopted by the National Association of Insurance Commissioners (NAIC) in its Model Insurance Holding Company System Regulatory Act and model regulations pertaining thereto, or is the reporting entity subject to standards and disclosure requirements substantially similar to those required by such Act and regulations? Yes [X] No [] N/A []
- 1.3 State Regulating? Connecticut
- 2.1 Has any change been made during the year of this statement in the charter, by-laws, articles of incorporation, or deed of settlement of the reporting entity? Yes [] No [X]
- 2.2 If yes, date of change:
- 3.1 State as of what date the latest financial examination of the reporting entity was made or is being made. 12/31/2014
- 3.2 State the as of date that the latest financial examination report became available from either the state of domicile or the reporting entity. This date should be the date of the examined balance sheet and not the date the report was completed or released. 12/31/2014
- 3.3 State as of what date the latest financial examination report became available to other states or the public from either the state of domicile or the reporting entity. This is the release date or completion date of the examination report and not the date of the examination (balance sheet date). 05/31/2016
- 3.4 By what department or departments?
State of Connecticut Insurance Department
- 3.5 Have all financial statement adjustments within the latest financial examination report been accounted for in a subsequent financial statement filed with Departments? Yes [] No [] N/A [X]
- 3.6 Have all of the recommendations within the latest financial examination report been complied with? Yes [X] No [] N/A []
- 4.1 During the period covered by this statement, did any agent, broker, sales representative, non-affiliated sales/service organization or any combination thereof under common control (other than salaried employees of the reporting entity), receive credit or commissions for or control a substantial part (more than 20 percent of any major line of business measured on direct premiums) of:
4.11 sales of new business? Yes [] No [X]
4.12 renewals? Yes [] No [X]
- 4.2 During the period covered by this statement, did any sales/service organization owned in whole or in part by the reporting entity or an affiliate, receive credit or commissions for or control a substantial part (more than 20 percent of any major line of business measured on direct premiums) of:
4.21 sales of new business? Yes [] No [X]
4.22 renewals? Yes [] No [X]
- 5.1 Has the reporting entity been a party to a merger or consolidation during the period covered by this statement? Yes [] No [X]
- 5.2 If yes, provide the name of the entity, NAIC Company Code, and state of domicile (use two letter state abbreviation) for any entity that has ceased to exist as a result of the merger or consolidation.

1 Name of Entity	2 NAIC Company Code	3 State of Domicile

- 6.1 Has the reporting entity had any Certificates of Authority, licenses or registrations (including corporate registration, if applicable) suspended or revoked by any governmental entity during the reporting period? Yes [] No [X]
- 6.2 If yes, give full information:
- 7.1 Does any foreign (non-United States) person or entity directly or indirectly control 10% or more of the reporting entity? Yes [] No [X]
- 7.2 If yes,
7.21 State the percentage of foreign control; %
7.22 State the nationality(s) of the foreign person(s) or entity(s) or if the entity is a mutual or reciprocal, the nationality of its manager or attorney-in-fact; and identify the type of entity(s) (e.g., individual, corporation or government, manager or attorney in fact).

1 Nationality	2 Type of Entity

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE C.M. Life Insurance Company

GENERAL INTERROGATORIES

- 8.1 Is the company a subsidiary of a bank holding company regulated by the Federal Reserve Board? Yes [] No [X]
- 8.2 If response to 8.1 is yes, please identify the name of the bank holding company.
.....
- 8.3 Is the company affiliated with one or more banks, thrifts or securities firms? Yes [X] No []
- 8.4 If response to 8.3 is yes, please provide below the names and location (city and state of the main office) of any affiliates regulated by a federal regulatory services agency [i.e. the Federal Reserve Board (FRB), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC) and the Securities Exchange Commission (SEC)] and identify the affiliate's primary federal regulator.

1 Affiliate Name	2 Location (City, State)	3 FRB	4 OCC	5 FDIC	6 SEC
Baring International Investment Limited	London, UK				YES
Barings Securities, LLC	Boston, MA				YES
MML Distributors, LLC	Enfield, CT				YES
MML Investment Advisers, LLC	Enfield, CT				YES
MML Investors Services, LLC	Springfield, MA				YES
MML Strategic Distributors, LLC	Springfield, MA				YES
MMLISI Financial Alliances, LLC	Springfield, MA				YES
MSI Financial Services, Inc.	Springfield, MA				YES
OppenheimerFunds Distributor, Inc.	New York, NY				YES
Society of Grownups, LLC	Springfield, MA				YES
The MassMutual Trust Company, FSB	Enfield, CT		YES		

9. What is the name and address of the independent certified public accountant or accounting firm retained to conduct the annual audit?
KPMG, LLP, One Financial Plaza, Hartford, CT 06103
- 10.1 Has the insurer been granted any exemptions to the prohibited non-audit services provided by the certified independent public accountant requirements as allowed in Section 7H of the Annual Financial Reporting Model Regulation (Model Audit Rule), or substantially similar state law or regulation? Yes [] No [X]
- 10.2 If the response to 10.1 is yes, provide information related to this exemption:
.....
- 10.3 Has the insurer been granted any exemptions related to the other requirements of the Annual Financial Reporting Model Regulation as allowed for in Section 18A of the Model Regulation, or substantially similar state law or regulation? Yes [] No [X]
- 10.4 If the response to 10.3 is yes, provide information related to this exemption:
.....
- 10.5 Has the reporting entity established an Audit Committee in compliance with the domiciliary state insurance laws? Yes [X] No [] N/A []
- 10.6 If the response to 10.5 is no or n/a, please explain
.....
11. What is the name, address and affiliation (officer/employee of the reporting entity or actuary/consultant associated with an actuarial consulting firm) of the individual providing the statement of actuarial opinion/certification?
Douglas W Taylor, FSA, MAAA, Vice President and Appointed Actuary, 1295 State Street, Springfield, MA 01111
- 12.1 Does the reporting entity own any securities of a real estate holding company or otherwise hold real estate indirectly? Yes [X] No []
- 12.11 Name of real estate holding company See 12.2
- 12.12 Number of parcels involved 82
- 12.13 Total book/adjusted carrying value \$ 200,064,264
- 12.2 If, yes provide explanation:
The Company held investments in debt and equity securities in 82 parcels, which own or hold real estate indirectly. The statement value at December 31, 2016 of debt and equity was \$183,295,133 and \$16,769,131, respectively. The Company also held 33 parcels through investments in LP and LLC entities that own real estate. These investments had a statement value of \$78,592,657 as of December 31, 2016.
13. **FOR UNITED STATES BRANCHES OF ALIEN REPORTING ENTITIES ONLY:**
- 13.1 What changes have been made during the year in the United States manager or the United States trustees of the reporting entity?
.....
- 13.2 Does this statement contain all business transacted for the reporting entity through its United States Branch on risks wherever located? Yes [] No []
- 13.3 Have there been any changes made to any of the trust indentures during the year? Yes [] No []
- 13.4 If answer to (13.3) is yes, has the domiciliary or entry state approved the changes? Yes [] No [] N/A []
- 14.1 Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) of the reporting entity subject to a code of ethics, which includes the following standards? Yes [X] No []
- (a) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;
- (b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity;
- (c) Compliance with applicable governmental laws, rules and regulations;
- (d) The prompt internal reporting of violations to an appropriate person or persons identified in the code; and
- (e) Accountability for adherence to the code.
- 14.11 If the response to 14.1 is No, please explain:
.....
- 14.2 Has the code of ethics for senior managers been amended? Yes [] No [X]
- 14.21 If the response to 14.2 is yes, provide information related to amendment(s).
.....
- 14.3 Have any provisions of the code of ethics been waived for any of the specified officers? Yes [] No [X]
- 14.31 If the response to 14.3 is yes, provide the nature of any waiver(s).
.....

GENERAL INTERROGATORIES

- 15.1 Is the reporting entity the beneficiary of a Letter of Credit that is unrelated to reinsurance where the issuing or confirming bank is not on the SVO Bank List? Yes [] No [X]
- 15.2 If the response to 15.1 is yes, indicate the American Bankers Association (ABA) Routing Number and the name of the issuing or confirming bank of the Letter of Credit and describe the circumstances in which the Letter of Credit is triggered.

1 American Bankers Association (ABA) Routing Number	2 Issuing or Confirming Bank Name	3 Circumstances That Can Trigger the Letter of Credit	4 Amount

BOARD OF DIRECTORS

16. Is the purchase or sale of all investments of the reporting entity passed upon either by the board of directors or a subordinate committee thereof? Yes [X] No []
17. Does the reporting entity keep a complete permanent record of the proceedings of its board of directors and all subordinate committees thereof? Yes [X] No []
18. Has the reporting entity an established procedure for disclosure to its board of directors or trustees of any material interest or affiliation on the part of any of its officers, directors, trustees or responsible employees that is in conflict with the official duties of such person? Yes [X] No []

FINANCIAL

19. Has this statement been prepared using a basis of accounting other than Statutory Accounting Principles (e.g., Generally Accepted Accounting Principles)? Yes [] No [X]
- 20.1 Total amount loaned during the year (inclusive of Separate Accounts, exclusive of policy loans):
- 20.11 To directors or other officers.....\$
 - 20.12 To stockholders not officers.....\$
 - 20.13 Trustees, supreme or grand (Fraternal Only)\$
- 20.2 Total amount of loans outstanding at the end of year (inclusive of Separate Accounts, exclusive of policy loans):
- 20.21 To directors or other officers.....\$
 - 20.22 To stockholders not officers.....\$
 - 20.23 Trustees, supreme or grand (Fraternal Only)\$
- 21.1 Were any assets reported in this statement subject to a contractual obligation to transfer to another party without the liability for such obligation being reported in the statement? Yes [] No [X]
- 21.2 If yes, state the amount thereof at December 31 of the current year:
- 21.21 Rented from others.....\$
 - 21.22 Borrowed from others.....\$
 - 21.23 Leased from others\$
 - 21.24 Other\$
- 22.1 Does this statement include payments for assessments as described in the Annual Statement Instructions other than guaranty fund or guaranty association assessments? Yes [] No [X]
- 22.2 If answer is yes:
- 22.21 Amount paid as losses or risk adjustment \$
 - 22.22 Amount paid as expenses\$
 - 22.23 Other amounts paid\$
- 23.1 Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement? Yes [X] No []
- 23.2 If yes, indicate any amounts receivable from parent included in the Page 2 amount:\$0

INVESTMENT

- 24.01 Were all the stocks, bonds and other securities owned December 31 of current year, over which the reporting entity has exclusive control, in the actual possession of the reporting entity on said date? (other than securities lending programs addressed in 24.03)..... Yes [X] No []
- 24.02 If no, give full and complete information relating thereto
.....
- 24.03 For security lending programs, provide a description of the program including value for collateral and amount of loaned securities, and whether collateral is carried on or off-balance sheet. (an alternative is to reference Note 17 where this information is also provided) N/A
- 24.04 Does the Company's security lending program meet the requirements for a conforming program as outlined in the Risk-Based Capital Instructions? Yes [] No [] N/A [X]
- 24.05 If answer to 24.04 is yes, report amount of collateral for conforming programs.\$
- 24.06 If answer to 24.04 is no, report amount of collateral for other programs.\$
- 24.07 Does your securities lending program require 102% (domestic securities) and 105% (foreign securities) from the counterparty at the outset of the contract? Yes [] No [] N/A [X]
- 24.08 Does the reporting entity non-admit when the collateral received from the counterparty falls below 100%? Yes [] No [] N/A [X]
- 24.09 Does the reporting entity or the reporting entity 's securities lending agent utilize the Master Securities lending Agreement (MSLA) to conduct securities lending? Yes [] No [] N/A [X]

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
GENERAL INTERROGATORIES

24.10 For the reporting entity's security lending program state the amount of the following as December 31 of the current year:

24.101 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2\$
 24.102 Total book adjusted/carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2\$
 24.103 Total payable for securities lending reported on the liability page\$

25.1 Were any of the stocks, bonds or other assets of the reporting entity owned at December 31 of the current year not exclusively under the control of the reporting entity, or has the reporting entity sold or transferred any assets subject to a put option contract that is currently in force? (Exclude securities subject to Interrogatory 21.1 and 24.03). Yes [X] No []

25.2 If yes, state the amount thereof at December 31 of the current year:

25.21 Subject to repurchase agreements\$
 25.22 Subject to reverse repurchase agreements\$
 25.23 Subject to dollar repurchase agreements\$
 25.24 Subject to reverse dollar repurchase agreements\$
 25.25 Placed under option agreements\$
 25.26 Letter stock or securities restricted as to sale - excluding FHLB Capital Stock\$
 25.27 FHLB Capital Stock\$
 25.28 On deposit with states\$ 4,265,185
 25.29 On deposit with other regulatory bodies\$
 25.30 Pledged as collateral - excluding collateral pledged to an FHLB\$
 25.31 Pledged as collateral to FHLB - including assets backing funding agreements\$
 25.32 Other\$

25.3 For category (25.26) provide the following:

1 Nature of Restriction	2 Description	3 Amount

26.1 Does the reporting entity have any hedging transactions reported on Schedule DB? Yes [] No [X]

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

27.1 Were any preferred stocks or bonds owned as of December 31 of the current year mandatorily convertible into equity, or, at the option of the issuer, convertible into equity? Yes [] No [X]

27.2 If yes, state the amount thereof at December 31 of the current year.\$

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

28.01 For agreements that comply with the requirements of the NAIC Financial Condition Examiners Handbook, complete the following:

1 Name of Custodian(s)	2 Custodian's Address
Citibank, N.A.	333 West 34th Street, New York, NY 10001

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

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

28.03 Have there been any changes, including name changes, in the custodian(s) identified in 28.01 during the current year? Yes [] No [X]

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

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

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

GENERAL INTERROGATORIES

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

1 Name of Firm or Individual	2 Affiliation
Barings LLC	A.....

28.0597 For those firms/individuals listed in the table for Question 28.05, do any firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") manage more than 10% of the reporting entity's assets?..... Yes [] No [X]

28.0598 For firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") listed in the table for Question 28.05, does the total assets under management aggregate to more than 50% of the reporting entity's assets?..... Yes [] No [X]

28.06 For those firms or individuals listed in the table for 28.05 with an affiliation code of "A" (affiliated) or "U" (unaffiliated), provide the information for the table below.

1 Central Registration Depository Number	2 Name of Firm or Individual	3 Legal Entity Identifier (LEI)	4 Registered With	5 Investment Management Agreement (IMA) Filed
106006	Barings LLC	5493005EMQYELJUS5W59	SEC	DS.....

29.1 Does the reporting entity have any diversified mutual funds reported in Schedule D, Part 2 (diversified according to the Securities and Exchange Commission (SEC) in the Investment Company Act of 1940 [Section 5(b)(1)])? Yes [] No [X]

29.2 If yes, complete the following schedule:

1 CUSIP #	2 Name of Mutual Fund	3 Book/Adjusted Carrying Value
29.2999 - Total		

29.3 For each mutual fund listed in the table above, complete the following schedule:

1 Name of Mutual Fund (from above table)	2 Name of Significant Holding of the Mutual Fund	3 Amount of Mutual Fund's Book/Adjusted Carrying Value Attributable to the Holding	4 Date of Valuation

30. Provide the following information for all short-term and long-term bonds and all preferred stocks. Do not substitute amortized value or statement value for fair value.

	1 Statement (Admitted) Value	2 Fair Value	3 Excess of Statement over Fair Value (-), or Fair Value over Statement (+)
30.1 Bonds	375,211,196	376,955,521	1,744,325
30.2 Preferred stocks			
30.3 Totals	375,211,196	376,955,521	1,744,325

30.4 Describe the sources or methods utilized in determining the fair values:

The Fair Value of securities is obtained using quoted market prices when available. If not available, estimated fair value is based on values provided by other third-party organizations. If values provided by other third-party organizations are unavailable, fair value is estimated using internal models by discounting future cash flows using observable current market rates applicable to yield, credit quality and maturity of the investment or using quoted market values for comparable investments. Internal inputs used in the determination of fair value include estimated prepayment speeds, default rates, discount rates and collateral values, among others. Structure Characteristics and results of cash flow priority are also considered.

31.1 Was the rate used to calculate fair value determined by a broker or custodian for any of the securities in Schedule D? Yes [X] No []

31.2 If the answer to 31.1 is yes, does the reporting entity have a copy of the broker's or custodian's pricing policy (hard copy or electronic copy) for all brokers or custodians used as a pricing source? Yes [X] No []

31.3 If the answer to 31.2 is no, describe the reporting entity's process for determining a reliable pricing source for purposes of disclosure of fair value for Schedule D:
.....

32.1 Have all the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office been followed? Yes [X] No []

32.2 If no, list exceptions:
.....

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
GENERAL INTERROGATORIES

OTHER

33.1 Amount of payments to trade associations, service organizations and statistical or rating bureaus, if any?\$16,881

33.2 List the name of the organization and the amount paid if any such payment represented 25% or more of the total payments to trade associations, service organizations and statistical or rating bureaus during the period covered by this statement.

1 Name	2 Amount Paid
American Council of Life Insurers (ACLI)	5,280

34.1 Amount of payments for legal expenses, if any?\$14,554

34.2 List the name of the firm and the amount paid if any such payment represented 25% or more of the total payments for legal expenses during the period covered by this statement.

1 Name	2 Amount Paid
Sutherland Asbill & Brennan LLP	9,181

35.1 Amount of payments for expenditures in connection with matters before legislative bodies, officers or departments of government, if any?\$7,609

35.2 List the name of the firm and the amount paid if any such payment represented 25% or more of the total payment expenditures in connection with matters before legislative bodies, officers or departments of government during the period covered by this statement.

1 Name	2 Amount Paid
.....	

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

GENERAL INTERROGATORIES

PART 2 - LIFE INTERROGATORIES

1.1 Does the reporting entity have any direct Medicare Supplement Insurance in force? Yes [] No [X]

1.2 If yes, indicate premium earned on U.S. business only \$

1.3 What portion of Item (1.2) is not reported on the Medicare Supplement Insurance Experience Exhibit? \$

1.31 Reason for excluding:
.....

1.4 Indicate amount of earned premium attributable to Canadian and/or Other Alien not included in Item (1.2) above. \$

1.5 Indicate total incurred claims on all Medicare Supplement insurance. \$

1.6 Individual policies:

Most current three years:

1.61 Total premium earned \$

1.62 Total incurred claims \$

1.63 Number of covered lives

All years prior to most current three years

1.64 Total premium earned \$

1.65 Total incurred claims \$

1.66 Number of covered lives

1.7 Group policies:

Most current three years:

1.71 Total premium earned \$

1.72 Total incurred claims \$

1.73 Number of covered lives

All years prior to most current three years

1.74 Total premium earned \$

1.75 Total incurred claims \$

1.76 Number of covered lives

2. Health Test:

	1 Current Year	2 Prior Year
2.1 Premium Numerator		
2.2 Premium Denominator	(105,853,696)	24,468,709
2.3 Premium Ratio (2.1/2.2)	0.000	0.000
2.4 Reserve Numerator		
2.5 Reserve Denominator	139,140,808	140,173,099
2.6 Reserve Ratio (2.4/2.5)	0.000	0.000

3.1 Does this reporting entity have Separate Accounts? Yes [X] No []

3.2 If yes, has a Separate Accounts Statement been filed with this Department? Yes [X] No [] N/A []

3.3 What portion of capital and surplus funds of the reporting entity covered by assets in the Separate Accounts statement, is not currently distributable from the Separate Accounts to the general account for use by the general account? \$ 577,737

3.4 State the authority under which Separate Accounts are maintained:
Connecticut General Statutes, Section 33a-433 and 33a-459

3.5 Was any of the reporting entity's Separate Accounts business reinsured as of December 31? Yes [X] No []

3.6 Has the reporting entity assumed by reinsurance any Separate Accounts business as of December 31? Yes [] No [X]

3.7 If the reporting entity has assumed Separate Accounts business, how much, if any, reinsurance assumed receivable for reinsurance of Separate Accounts reserve expense allowances is included as a negative amount in the liability for "Transfers to Separate Accounts due or accrued (net)"?

4.1 Are personnel or facilities of this reporting entity used by another entity or entities or are personnel or facilities of another entity or entities used by this reporting entity (except for activities such as administration of jointly underwritten group contracts and joint mortality or morbidity studies)? Yes [X] No []

4.2 Net reimbursement of such expenses between reporting entities:

4.21 Paid \$ 8,121,000

4.22 Received \$

5.1 Does the reporting entity write any guaranteed interest contracts? Yes [] No [X]

5.2 If yes, what amount pertaining to these lines is included in:

5.21 Page 3, Line 1 \$

5.22 Page 4, Line 1 \$

6. FOR STOCK REPORTING ENTITIES ONLY:

6.1 Total amount paid in by stockholders as surplus funds since organization of the reporting entity: \$ 143,736,914

7. Total dividends paid stockholders since organization of the reporting entity:

7.11 Cash \$ 287,566,415

7.12 Stock \$ 180,000

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

GENERAL INTERROGATORIES

8.1 Does the company reinsure any Workers' Compensation Carve-Out business defined as: Yes [] No [X]
 Reinsurance (including retrocessional reinsurance) assumed by life and health insurers of medical, wage loss and death benefits of the occupational illness and accident exposures, but not the employers liability exposures, of business originally written as workers' compensation insurance.

8.2 If yes, has the reporting entity completed the Workers' Compensation Carve-Out Supplement to the Annual Statement? Yes [] No []

8.3 If 8.1 is yes, the amounts of earned premiums and claims incurred in this statement are:

	1 Reinsurance Assumed	2 Reinsurance Ceded	3 Net Retained
8.31 Earned premium
8.32 Paid claims
8.33 Claim liability and reserve (beginning of year)
8.34 Claim liability and reserve (end of year)
8.35 Incurred claims

8.4 If reinsurance assumed included amounts with attachment points below \$1,000,000, the distribution of the amounts reported in Lines 8.31 and 8.34 for Column (1) are:

	Attachment Point	1 Earned Premium	2 Claim Liability and Reserve
8.41	<\$25,000	.....	.....
8.42	\$25,000 - 99,999	.....	.....
8.43	\$100,000 - 249,999	.....	.....
8.44	\$250,000 - 999,999	.....	.....
8.45	\$1,000,000 or more	.....	.....

8.5 What portion of earned premium reported in 8.31, Column 1 was assumed from pools?\$

9.1 Does the company have variable annuities with guaranteed benefits? Yes [X] No []

9.2 If 9.1 is yes, complete the following table for each type of guaranteed benefit.

Type		3	4	5	6	7	8	9
1	2	Waiting Period Remaining	Account Value Related to Col. 3	Total Related Account Values	Gross Amount of Reserve	Location of Reserve	Portion Reinsured	Reinsurance Reserve Credit
Guaranteed Death Benefit	Guaranteed Living Benefit							
5% ROLL UP	NONE	N/A	N/A	41,980,252	921,652	Exhibit 5	N/A .....	.....

10. For reporting entities having sold annuities to another insurer where the insurer purchasing the annuities has obtained a release of liability from the claimant (payee) as the result of the purchase of an annuity from the reporting entity only:

10.1 Amount of loss reserves established by these annuities during the current year:\$

10.2 List the name and location of the insurance company purchasing the annuities and the statement value on the purchase date of the annuities.

1	2
	Statement Value on Purchase Date of Annuities (i.e., Present Value)
P&C Insurance Company And Location

11.1 Do you act as a custodian for health savings accounts? Yes [] No [X]

11.2 If yes, please provide the amount of custodial funds held as of the reporting date.\$

11.3 Do you act as an administrator for health savings accounts? Yes [] No [X]

11.4 If yes, please provide the balance of funds administered as of the reporting date.\$

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

GENERAL INTERROGATORIES

12.1 Are any of the captive affiliates reported on Schedule S, Part 3, authorized reinsurers? Yes [] No [] N/A [X]

12.2 If the answer to 12.1 is yes, please provide the following:

1 Company Name	2 NAIC Company Code	3 Domiciliary Jurisdiction	4 Reserve Credit	Assets Supporting Reserve Credit		
				5 Letters of Credit	6 Trust Agreements	7 Other

13. Provide the following for individual ordinary life insurance* policies (U.S. business only) for the current year (prior to reinsurance assumed or ceded):

13.1 Direct Premium Written\$37,393,796
 13.2 Total Incurred Claims\$31,322,319
 13.3 Number of Covered Lives28,065

*Ordinary Life Insurance Includes
Term (whether full underwriting,limited underwriting,jet issue,"short form app")
Whole Life (whether full underwriting,limited underwriting,jet issue,"short form app")
Variable Life (with or without secondary gurarantee)
Universal Life (with or without secondary gurarantee)
Variable Universal Life (with or without secondary gurarantee)

FIVE-YEAR HISTORICAL DATA

Show amounts in whole dollars only, no cents; show percentages to one decimal place, i.e. 17.6.

Show amounts of life insurance in this exhibit in thousands (OMIT \$000)

	1 2016	2 2015	3 2014	4 2013	5 2012
Life Insurance in Force (Exhibit of Life Insurance)					
1. Ordinary - whole life and endowment (Line 34, Col. 4)	5,292,746	5,683,960	6,050,202	6,484,724	7,022,075
2. Ordinary - term (Line 21, Col. 4, less Line 34, Col. 4)	4,109	4,183	4,429	4,214	4,764
3. Credit life (Line 21, Col. 6)					
4. Group, excluding FEGLI/SGLI (Line 21, Col. 9 less Lines 43 & 44, Col. 4)	6,939,534	6,952,141	7,197,793	7,235,356	7,336,331
5. Industrial (Line 21, Col. 2)					
6. FEGLI/SGLI (Lines 43 & 44, Col. 4)					
7. Total (Line 21, Col. 10)	12,236,389	12,640,284	13,252,424	13,724,293	14,363,170
New Business Issued (Exhibit of Life Insurance)					
8. Ordinary - whole life and endowment (Line 34, Col. 2)	2,237	2,939	3,239	4,157	1,601
9. Ordinary - term (Line 2, Col. 4, less Line 34, Col. 2)					
10. Credit life (Line 2, Col. 6)					
11. Group (Line 2, Col. 9)					
12. Industrial (Line 2, Col. 2)					
13. Total (Line 2, Col. 10)	2,237	2,939	3,239	4,157	1,601
Premium Income - Lines of Business (Exhibit 1 - Part 1)					
14. Industrial life (Line 20.4, Col. 2)					
15.1 Ordinary-life insurance (Line 20.4, Col. 3)	(102,342,667)	22,332,572	24,768,332	27,379,187	29,580,569
15.2 Ordinary-individual annuities (Line 20.4, Col. 4)	21,760	15,900	72,897	149,552	27,642
16. Credit life (group and individual) (Line 20.4, Col. 5)					
17.1 Group life insurance (Line 20.4, Col. 6)	(3,532,789)	2,120,238	(729,431)	1,085,832	(1,270,471)
17.2 Group annuities (Line 20.4, Col. 7)					
18.1 A & H-group (Line 20.4, Col. 8)					
18.2 A & H-credit (group and individual) (Line 20.4, Col. 9)					
18.3 A & H-other (Line 20.4, Col. 10)					
19. Aggregate of all other lines of business (Line 20.4, Col. 11)					
20. Total	(105,853,696)	24,468,709	24,111,798	28,614,570	28,337,739
Balance Sheet (Pages 2 & 3)					
21. Total admitted assets excluding Separate Accounts business (Page 2, Line 26, Col. 3)	502,235,638	421,257,703	396,121,986	373,003,748	378,166,063
22. Total liabilities excluding Separate Accounts business (Page 3, Line 26)	213,941,199	189,956,698	184,428,288	176,982,480	181,938,986
23. Aggregate life reserves (Page 3, Line 1)	138,538,127	136,618,028	131,672,365	129,503,950	124,285,572
24. Aggregate A & H reserves (Page 3, Line 2)					
25. Deposit-type contract funds (Page 3, Line 3)	11,548,399	9,891,826	6,325,705	6,841,263	6,397,225
26. Asset valuation reserve (Page 3, Line 24.01)	4,997,495	4,666,310	4,323,715	4,326,921	3,830,096
27. Capital (Page 3, Lines 29 and 30)	2,500,200	2,500,200	2,500,200	2,500,200	2,500,200
28. Surplus (Page 3, Line 37)	285,794,239	228,800,805	209,193,498	193,521,068	193,727,301
Cash Flow (Page 5)					
29. Net Cash from Operations (Line 11)	78,725,201	28,144,313	16,463,961	23,888,633	34,752,059
Risk-Based Capital Analysis					
30. Total adjusted capital	293,291,934	235,967,315	216,017,413	200,348,189	200,057,597
31. Authorized control level risk - based capital	2,482,639	2,652,876	2,641,360	2,597,505	2,658,823
Percentage Distribution of Cash, Cash Equivalents and Invested Assets (Page 2, Col. 3) (Line No. /Page 2, Line 12, Col. 3) x 100.0					
32. Bonds (Line 1)	65.7	57.8	40.8	43.3	42.7
33. Stocks (Lines 2.1 and 2.2)					
34. Mortgage loans on real estate(Lines 3.1 and 3.2)	0.8	1.5	1.2	1.4	1.6
35. Real estate (Lines 4.1, 4.2 and 4.3)					
36. Cash, cash equivalents and short-term investments (Line 5)	13.3	15.9	31.4	27.1	27.0
37. Contract loans (Line 6)	20.2	24.8	26.6	28.2	28.7
38. Derivatives (Page 2, Line 7)					
39. Other invested assets (Line 8)					
40. Receivables for securities (Line 9)					
41. Securities lending reinvested collateral assets (Line 10)					
42. Aggregate write-ins for invested assets (Line 11)					
43. Cash, cash equivalents and invested assets (Line 12)	100.0	100.0	100.0	100.0	100.0

FIVE-YEAR HISTORICAL DATA

(Continued)

	1 2016	2 2015	3 2014	4 2013	5 2012
Investments in Parent, Subsidiaries and Affiliates					
44. Affiliated bonds (Schedule D Summary, Line 12, Col. 1)	6,404,131	1,642,655	2,287,569	3,829,163	5,800,979
45. Affiliated preferred stocks (Schedule D Summary, Line 18, Col. 1)					
46. Affiliated common stocks (Schedule D Summary Line 24, Col. 1),					
47. Affiliated short-term investments (subtotal included in Schedule DA Verification, Col. 5, Line 10)					
48. Affiliated mortgage loans on real estate					
49. All other affiliated					
50. Total of above Lines 44 to 49	6,404,131	1,642,655	2,287,569	3,829,163	5,800,979
51. Total Investment in Parent included in Lines 44 to 49 above					
Total Nonadmitted and Admitted Assets					
52. Total nonadmitted assets (Page 2, Line 28, Col. 2)	13,735,539	3,847,610	4,449,066	1,152,925	2,217,744
53. Total admitted assets (Page 2, Line 28, Col. 3)	4,814,287,017	4,700,075,825	4,670,965,245	4,587,907,421	4,489,157,158
Investment Data					
54. Net investment income (Exhibit of Net Investment Income)	14,288,275	12,852,135	11,616,274	11,832,493	13,066,812
55. Realized capital gains (losses) (Page 4, Line 34, Column 1)	20,356	(35,042)	160,945	(57,628)	1,940,308
56. Unrealized capital gains (losses) (Page 4, Line 38, Column 1)	(19,222)				13,889
57. Total of above Lines 54, 55 and 56	14,289,409	12,817,093	11,777,219	11,774,865	15,021,009
Benefits and Reserve Increases (Page 6)					
58. Total contract benefits - life (Lines 10, 11, 12, 13, 14 and 15 Col. 1, minus Lines 10, 11, 12, 13, 14 and 15 Cols. 9, 10 and 11)	93,613,485	96,724,416	95,253,292	163,470,387	194,338,771
59. Total contract benefits - A & H (Lines 13 & 14, Cols. 9, 10 & 11)					
60. Increase in life reserves - other than group and annuities (Line 19, Cols. 2 and 3)	1,778,200	4,291,458	1,799,063	4,430,583	12,589,804
61. Increase in A & H reserves (Line 19, Cols. 9, 10 & 11)					
62. Dividends to policyholders (Line 30, Col. 1)					
Operating Percentages					
63. Insurance expense percent (Page 6, Col. 1, Lines 21, 22 & 23, less Line 6)/(Page 6, Col. 1, Line 1 plus Exhibit 7, Col. 2, Line 2) x 100.0	47.6	23.9	34.3	27.0	26.7
64. Lapse percent (ordinary only) [(Exhibit of Life Insurance, Col. 4, Lines 14 & 15) / 1/2 (Exhibit of Life Insurance, Col. 4, Lines 1 & 21)] x 100.0	6.5	5.8	6.5	7.8	8.6
65. A & H loss percent (Schedule H, Part 1, Lines 5 and 6, Col. 2)					
66. A & H cost containment percent (Schedule H, Pt. 1, Line 4, Col. 2)					
67. A & H expense percent excluding cost containment expenses (Schedule H, Pt. 1, Line 10, Col. 2)					
A & H Claim Reserve Adequacy					
68. Incurred losses on prior years' claims - group health (Schedule H, Part 3, Line 3.1 Col. 2)					
69. Prior years' claim liability and reserve - group health (Schedule H, Part 3, Line 3.2 Col. 2)					
70. Incurred losses on prior years' claims-health other than group (Schedule H, Part 3, Line 3.1 Col. 1 less Col. 2)					
71. Prior years' claim liability and reserve-health other than group (Schedule H, Part 3, Line 3.2 Col. 1 less Col. 2)					
Net Gains From Operations After Federal Income Taxes by Lines of Business (Page 6, Line 33)					
72. Industrial life (Col. 2)					
73. Ordinary - life (Col. 3)	15,256,560	15,406,256	12,675,712	16,302,921	12,583,672
74. Ordinary - individual annuities (Col. 4)	649,597	(71,572)	49,014	88,620	86,355
75. Ordinary-supplementary contracts (Col. 5)	(101,148)	185,035	134,238	77,240	201,875
76. Credit life (Col. 6)					
77. Group life (Col. 7)	4,429,774	5,172,836	2,781,754	5,885,046	7,437,336
78. Group annuities (Col. 8)					
79. A & H-group (Col. 9)					
80. A & H-credit (Col. 10)					
81. A & H-other (Col. 11)					
82. Aggregate of all other lines of business (Col. 12)					
83. Total (Col. 1)	20,234,783	20,692,555	15,640,719	22,353,827	20,309,238

NOTE: If a party to a merger, have the two most recent years of this exhibit been restated due to a merger in compliance with the disclosure requirements of SSAP No. 3, Accounting Changes and Correction of Errors? Yes [] No []
 If no, please explain:



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

DIRECT BUSINESS IN THE STATE OF Grand Total

DURING THE YEAR 2016

NAIC Group Code 0435

LIFE INSURANCE

NAIC Company Code 70416

DIRECT PREMIUMS AND ANNUITY CONSIDERATIONS	1	2	3	4	5
	Ordinary	Credit Life (Group and Individual)	Group	Industrial	Total
1. Life insurance	37,052,930		33,927		37,086,857
2. Annuity considerations	21,760				21,760
3. Deposit-type contract funds		XXX		XXX	
4. Other considerations					
5. Totals (Sum of Lines 1 to 4)	37,074,690		33,927		37,108,617
DIRECT DIVIDENDS TO POLICYHOLDERS					
Life insurance:					
6.1 Paid in cash or left on deposit					
6.2 Applied to pay renewal premiums					
6.3 Applied to provide paid-up additions or shorten the endowment or premium-paying period					
6.4 Other					
6.5 Totals (Sum of Lines 6.1 to 6.4)					
Annuities:					
7.1 Paid in cash or left on deposit					
7.2 Applied to provide paid-up annuities					
7.3 Other					
7.4 Totals (Sum of Lines 7.1 to 7.3)					
8. Grand Totals (Lines 6.5 plus 7.4)					
DIRECT CLAIMS AND BENEFITS PAID					
9. Death benefits	27,416,716		38,318,416		65,735,132
10. Matured endowments					
11. Annuity benefits	3,111,803				3,111,803
12. Surrender values and withdrawals for life contracts	48,663,593		725,675		49,389,268
13. Aggregate write-ins for miscellaneous direct claims and benefits paid					
14. All other benefits, except accident and health	340,868				340,868
15. Totals	79,532,980		39,044,091		118,577,071
DETAILS OF WRITE-INS					
1301.					
1302.					
1303.					
1398. Summary of Line 13 from overflow page					
1399. Totals (Lines 1301 thru 1303 plus 1398) (Line 13 above)					

DIRECT DEATH BENEFITS AND MATURED ENDOWMENTS INCURRED	Ordinary		Credit Life (Group and Individual)		Group		Industrial		Total	
	1	2	3	4	5	6	7	8	9	10
	No.	Amount	No. of Ind.Pols. & Gr. Certifs.	Amount	No. of Certifs.	Amount	No.	Amount	No.	Amount
16. Unpaid December 31, prior year	33	3,751,998			9	7,443,968			42	11,195,966
17. Incurred during current year	297	31,896,093			49	34,458,537			346	66,354,630
Settled during current year:										
18.1 By payment in full	296	27,757,583			54	38,318,416			350	66,075,999
18.2 By payment on compromised claims										
18.3 Totals paid	296	27,757,583			54	38,318,416			350	66,075,999
18.4 Reduction by compromise										
18.5 Amount rejected										
18.6 Total settlements	296	27,757,583			54	38,318,416			350	66,075,999
19. Unpaid Dec. 31, current year (16+17-18.6)	34	7,890,509			4	3,584,089			38	11,474,597
POLICY EXHIBIT										
20. In force December 31, prior year	29,778	5,688,143,030	(a)		No. of Policies 21	6,952,141,485			29,799	12,640,284,515
21. Issued during year		2,237,485								2,237,485
22. Other changes to in force (Net)	(1,657)	(393,525,810)			(6)	(12,607,092)			(1,663)	(406,132,902)
23. In force December 31 of current year	28,121	5,296,854,705	(a)		15	6,939,534,393			28,136	12,236,389,098

(a) Includes Individual Credit Life Insurance prior year \$ _____, current year \$ _____
 Includes Group Credit Life Insurance Loans less than or equal to 60 months at issue, prior year \$ _____, current year \$ _____
 Loans greater than 60 months at issue BUT NOT GREATER THAN 120 MONTHS, prior year \$ _____, current year \$ _____

ACCIDENT AND HEALTH INSURANCE

	1	2	3	4	5
	Direct Premiums	Direct Premiums Earned	Dividends Paid Or Credited On Direct Business	Direct Losses Paid	Direct Losses Incurred
24. Group Policies (b)					
24.1 Federal Employees Health Benefits Plan premium (b)					
24.2 Credit (Group and Individual)					
24.3 Collectively renewable policies (b)					
24.4 Medicare Title XVIII exempt from state taxes or fees					
Other Individual Policies:					
25.1 Non-cancelable (b)					
25.2 Guaranteed renewable (b)					
25.3 Non-renewable for stated reasons only (b)					
25.4 Other accident only					
25.5 All other (b)					
25.6 Totals (sum of Lines 25.1 to 25.5)					
26. Totals (Lines 24 + 24.1 + 24.2 + 24.3 + 24.4 + 25.6)					

NONE

(b) For health business on indicated lines report: Number of persons insured under PPO managed care products _____ and number of persons insured under indemnity only products _____

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

EXHIBIT OF LIFE INSURANCE

	Industrial		Ordinary		Credit Life (Group and Individual)		Group			10 Total Amount of Insurance (a)
	1	2	3	4	5	6	Number of		9	
	Number of Policies	Amount of Insurance (a)	Number of Policies	Amount of Insurance (a)	Number of Individual Policies and Group Certificates	Amount of Insurance (a)	7 Policies	8 Certificates	Amount of Insurance (a)	
1. In force end of prior year			29,778	5,688,143			21	8,681	6,952,141	12,640,284
2. Issued during year				2,237						2,237
3. Reinsurance assumed										
4. Revived during year			3	898						898
5. Increased during year (net)			2						22,399	22,399
6. Subtotals, Lines 2 to 5			5	3,135					22,399	25,535
7. Additions by dividends during year	XXX		XXX		XXX		XXX	XXX		
8. Aggregate write-ins for increases										
9. Totals (Lines 1 and 6 to 8)			29,783	5,691,278			21	8,681	6,974,540	12,665,819
Deductions during year:										
10. Death			147	30,121			XXX	49	34,456	64,578
11. Maturity							XXX			
12. Disability							XXX			
13. Expiry			2	53						53
14. Surrender			1,105	250,743			6	11	550	251,293
15. Lapse			406	103,942						103,942
16. Conversion							XXX	XXX	XXX	
17. Decreased (net)			2	9,565						9,565
18. Reinsurance										
19. Aggregate write-ins for decreases										
20. Totals (Lines 10 to 19)			1,662	394,424			6	60	35,006	429,430
21. In force end of year (Line 9 minus Line 20)			28,121	5,296,855			15	8,621	6,939,534	12,236,389
22. Reinsurance ceded end of year	XXX		XXX	4,694,500	XXX		XXX	XXX	2,272,971	6,967,471
23. Line 21 minus Line 22	XXX		XXX	602,355	XXX	(b)	XXX	XXX	4,666,563	5,268,918
DETAILS OF WRITE-INS										
0801.										
0802.										
0803.										
0898. Summary of remaining write-ins for Line 8 from overflow page										
0899. TOTALS (Lines 0801 thru 0803 plus 0898) (Line 8 above)										
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)										

(a) Amounts of life insurance in this exhibit shall be shown in thousands (omit 000)

(b) Group \$; Individual \$

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

EXHIBIT OF LIFE INSURANCE (Continued)

ADDITIONAL INFORMATION ON INSURANCE IN FORCE END OF YEAR

	Industrial		Ordinary	
	1 Number of Policies	2 Amount of Insurance (a)	3 Number of Policies	4 Amount of Insurance (a)
24. Additions by dividends	XXX		XXX	
25. Other paid-up insurance			6	7,737
26. Debit ordinary insurance	XXX	XXX		

ADDITIONAL INFORMATION ON ORDINARY INSURANCE

Term Insurance Excluding Extended Term Insurance	Issued During Year (Included in Line 2)		In Force End of Year (Included in Line 21)	
	1 Number of Policies	2 Amount of Insurance (a)	3 Number of Policies	4 Amount of Insurance (a)
27. Term policies - decreasing				
28. Term policies - other				
29. Other term insurance - decreasing	XXX		XXX	
30. Other term insurance	XXX		XXX	600
31. Totals (Lines 27 to 30)				600
Reconciliation to Lines 2 and 21:				
32. Term additions	XXX		XXX	
33. Totals, extended term insurance	XXX	XXX	65	3,509
34. Totals, whole life and endowment		2,237	28,056	5,292,746
35. Totals (Lines 31 to 34)		2,237	28,121	5,296,855

CLASSIFICATION OF AMOUNT OF INSURANCE (a) BY PARTICIPATING STATUS

	Issued During Year (Included in Line 2)		In Force End of Year (Included in Line 21)	
	1 Non-Participating	2 Participating	3 Non-Participating	4 Participating
36. Industrial				
37. Ordinary	2,237		5,296,855	
38. Credit Life (Group and Individual)				
39. Group			6,939,534	
40. Totals (Lines 36 to 39)	2,237		12,236,389	

ADDITIONAL INFORMATION ON CREDIT LIFE AND GROUP INSURANCE

	Credit Life		Group	
	1 Number of Individual Policies and Group Certificates	2 Amount of Insurance (a)	3 Number of Certificates	4 Amount of Insurance (a)
41. Amount of insurance included in Line 2 ceded to other companies			XXX	
42. Number in force end of year if the number under ceding company is counted on a pro-rata basis		XXX		XXX
43. Federal Employees' Group Life Insurance included in Line 21				
44. Servicemen's Group Life Insurance included in Line 21				
45. Group Permanent Insurance included in Line 21				

ADDITIONAL ACCIDENTAL DEATH BENEFITS

46. Amount of additional accidental death benefits in force end of year under ordinary policies (a)	49,281
---	--------

BASIS OF CALCULATION OF ORDINARY TERM INSURANCE

47. State basis of calculation of (47.1) decreasing term insurance contracts containing Family Income, Mortgage Income, etc., policies and riders and of (47.2) term insurance on wife and children under Family, Parent and Child, etc., policies and riders, including above:	
47.1	
47.2	

POLICIES WITH DISABILITY PROVISIONS

Disability Provisions	Industrial		Ordinary		Credit		Group	
	1 Number of Policies	2 Amount of Insurance (a)	3 Number of Policies	4 Amount of Insurance (a)	5 Number of Policies	6 Amount of Insurance (a)	7 Number of Certificates	8 Amount of Insurance (a)
48. Waiver of Premium			12,761	2,137,065				
49. Disability Income								
50. Extended Benefits			XXX	XXX				
51. Other								
52. Total		(b)	12,761	(b) 2,137,065		(b)		(b)

(a) Amounts of life insurance in this exhibit shall be shown in thousands (omit 000)

(b) See Paragraph 9 of the Annual Audited Financial Reports in the General section of the annual statement instructions

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
EXHIBIT OF NUMBER OF POLICIES, CONTRACTS, CERTIFICATES, INCOME PAYABLE AND ACCOUNT VALUES IN FORCE FOR SUPPLEMENTARY CONTRACTS, ANNUITIES, ACCIDENT & HEALTH AND OTHER POLICIES

SUPPLEMENTARY CONTRACTS

	Ordinary		Group	
	1 Involving Life Contingencies	2 Not Involving Life Contingencies	3 Involving Life Contingencies	4 Not Involving Life Contingencies
1. In force end of prior year	11	75		
2. Issued during year		27		
3. Reinsurance assumed				
4. Increased during year (net)				
5. Total (Lines 1 to 4)	11	102		
Deductions during year:				
6. Decreased (net)	1	11		
7. Reinsurance ceded				
8. Totals (Lines 6 and 7)	1	11		
9. In force end of year	10	91		
10. Amount on deposit	291,098	(a) 11,548,399		(a)
11. Income now payable	10	17		
12. Amount of income payable	(a) 67,954	(a) 258,950	(a)	(a)

ANNUITIES

	Ordinary		Group	
	1 Immediate	2 Deferred	3 Contracts	4 Certificates
1. In force end of prior year		942		
2. Issued during year				
3. Reinsurance assumed				
4. Increased during year (net)				
5. Totals (Lines 1 to 4)		942		
Deductions during year:				
6. Decreased (net)		89		
7. Reinsurance ceded				
8. Totals (Lines 6 and 7)		89		
9. In force end of year		853		
Income now payable:				
10. Amount of income payable	(a)	XXX	XXX	(a)
Deferred fully paid:				
11. Account balance	XXX	(a)	XXX	(a)
Deferred not fully paid:				
12. Account balance	XXX	(a) 41,980,252	XXX	(a)

ACCIDENT AND HEALTH INSURANCE

	Group		Credit		Other	
	1 Certificates	2 Premiums in Force	3 Policies	4 Premiums in Force	5 Policies	6 Premiums in Force
1. In force end of prior year						
2. Issued during year						
3. Reinsurance assumed						
4. Increased during year (net)		XXX		XXX		XXX
5. Totals (Lines 1 to 4)		XXX		XXX		XXX
Deductions during year:						
6. Conversions		XXX		XXX	XXX	XXX
7. Decreased (net)		XX		XX		XX
8. Reinsurance ceded		XX		XX		XX
9. Totals (Lines 6 to 8)		XXX		XXX		XXX
10. In force end of year	(a)		(a)			(a)

DEPOSIT FUNDS AND DIVIDEND ACCUMULATIONS

	1	2
	Deposit Funds Contracts	Dividend Accumulations Contracts
1. In force end of prior year		
2. Issued during year		
3. Reinsurance assumed		
4. Increased during year (net)		
5. Totals (Lines 1 to 4)		
Deductions During Year:		
6. Decreased (net)		
7. Reinsurance ceded		
8. Totals (Lines 6 and 7)		
9. In force end of year		
10. Amount of account balance	(a)	(a)

(a) See Paragraph 9 of the Annual Audited Financial Reports in the General section of the annual statement instructions.

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
FORM FOR CALCULATING THE INTEREST MAINTENANCE RESERVE

INTEREST MAINTENANCE RESERVE

	1 Amount
1. Reserve as of December 31, Prior Year	365,578
2. Current year's realized pre-tax capital gains/(losses) of \$172,394 transferred into the reserve net of taxes of \$60,338	112,056
3. Adjustment for current year's liability gains/(losses) released from the reserve	
4. Balance before reduction for amount transferred to Summary of Operations (Line 1 + Line 2 + Line 3)	477,634
5. Current year's amortization released to Summary of Operations (Amortization, Line 1, Column 4)	188,040
6. Reserve as of December 31, current year (Line 4 minus Line 5)	289,594

AMORTIZATION

	1	2	3	4
Year of Amortization	Reserve as of December 31, Prior Year	Current Year's Realized Capital Gains/(Losses) Transferred into the Reserve Net of Taxes	Adjustment for Current Year's Liability Gains/(Losses) Released From the Reserve	Balance Before Reduction for Current Year's Amortization (Cols. 1 + 2 + 3)
1. 2016	175,872	12,168		188,040
2. 2017	110,704	25,416		136,120
3. 2018	67,287	23,444		90,731
4. 2019	32,609	18,293		50,902
5. 2020	10,174	13,023		23,197
6. 2021	1,641	7,558		9,199
7. 2022	(117)	4,252		4,135
8. 2023	(290)	3,402		3,112
9. 2024	(204)	2,480		2,276
10. 2025	(1,635)	1,524		(111)
11. 2026	(2,858)	496		(2,362)
12. 2027	(3,787)			(3,787)
13. 2028	(4,692)			(4,692)
14. 2029	(5,292)			(5,292)
15. 2030	(5,191)			(5,191)
16. 2031	(4,135)			(4,135)
17. 2032	(2,922)			(2,922)
18. 2033	(1,640)			(1,640)
19. 2034	(250)			(250)
20. 2035	355			355
21. 2036	181			181
22. 2037	59			59
23. 2038	(21)			(21)
24. 2039	(144)			(144)
25. 2040	(108)			(108)
26. 2041	(1)			(1)
27. 2042	(11)			(11)
28. 2043	(6)			(6)
29. 2044				
30. 2045				
31. 2046 and Later				
32. Total (Lines 1 to 31)	365,578	112,056		477,634

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

ASSET VALUATION RESERVE

	Default Component			Equity Component			7 Total Amount (Cols. 3 + 6)
	1 Other Than Mortgage Loans	2 Mortgage Loans	3 Total (Cols. 1 + 2)	4 Common Stock	5 Real Estate and Other Invested Assets	6 Total (Cols. 4 + 5)	
1. Reserve as of December 31, prior year	4,641,189	25,121	4,666,310				4,666,310
2. Realized capital gains/(losses) net of taxes - General Account	(35,249)		(35,249)				(35,249)
3. Realized capital gains/(losses) net of taxes - Separate Accounts	89,562		89,562				89,562
4. Unrealized capital gains/(losses) net of deferred taxes - General Account	(22,987)		(22,987)				(22,987)
5. Unrealized capital gains/(losses) net of deferred taxes - Separate Accounts							
6. Capital gains credited/(losses charged) to contract benefits, payments or reserves							
7. Basic contribution	881,383	6,325	887,708				887,708
8. Accumulated balances (Lines 1 through 5 - 6 + 7)	5,553,897	31,446	5,585,343				5,585,343
9. Maximum reserve	4,976,471	21,024	4,997,495				4,997,495
10. Reserve objective	3,534,003	12,722	3,546,724				3,546,724
11. 20% of (Line 10 - Line 8)	(403,979)	(3,745)	(407,724)				(407,724)
12. Balance before transfers (Lines 8 + 11)	5,149,918	27,702	5,177,620				5,177,620
13. Transfers							
14. Voluntary contribution							
15. Adjustment down to maximum/up to zero	(173,446)	(6,678)	(180,124)				(180,124)
16. Reserve as of December 31, current year (Lines 12 + 13 + 14 + 15)	4,976,472	21,024	4,997,496				4,997,496

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	39,357,823	XXX	XXX	39,357,823	0.0000		0.0000		0.0000	
2.	1	Highest Quality	183,849,371	XXX	XXX	183,849,371	0.0004	73,540	0.0023	422,854	0.0030	551,548
3.	2	High Quality	80,468,878	XXX	XXX	80,468,878	0.0019	152,891	0.0058	466,719	0.0090	724,220
4.	3	Medium Quality	3,934,619	XXX	XXX	3,934,619	0.0093	36,592	0.0230	90,496	0.0340	133,777
5.	4	Low Quality	1,296,948	XXX	XXX	1,296,948	0.0213	27,625	0.0530	68,738	0.0750	97,271
6.	5	Lower Quality	782,226	XXX	XXX	782,226	0.0432	33,792	0.1100	86,045	0.1700	132,978
7.	6	In or Near Default	526,940	XXX	XXX	526,940	0.0000		0.2000	105,388	0.2000	105,388
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)	310,216,805	XXX	XXX	310,216,805	XXX	324,440	XXX	1,240,240	XXX	1,745,183
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		XXX	XXX		0.0000		0.0000		0.0000	
19.	1	Highest Quality		XXX	XXX		0.0004		0.0023		0.0030	
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)		XXX	XXX		XXX		XXX		XXX	
DERIVATIVE INSTRUMENTS												
26.		Exchange Traded		XXX	XXX		0.0004		0.0023		0.0030	
27.	1	Highest Quality		XXX	XXX		0.0004		0.0023		0.0030	
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		XXX	XXX		XXX		XXX		XXX	
34.		Total (Lines 9 + 17 + 25 + 33)	310,216,805	XXX	XXX	310,216,805	XXX	324,440	XXX	1,240,240	XXX	1,745,183

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	3,828,103		XXX	3,828,103	0.0003	1,148	0.0006	2,297	0.0010	3,828
41.		Residential Mortgages - All Other	178,985		XXX	178,985	0.0013	233	0.0030	537	0.0040	716
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)	4,007,088		XXX	4,007,088	XXX	1,381	XXX	2,834	XXX	4,544
59.		Schedule DA Mortgages			XXX		0.0030		0.0100		0.0130	
60.		Total Mortgage Loans on Real Estate (Lines 58 + 59)	4,007,088		XXX	4,007,088	XXX	1,381	XXX	2,834	XXX	4,544

Asset Valuation Reserve - Equity Component

NONE

Asset Valuation Reserve Replications (Synthetic) Assets

NONE

Schedule F - Claims

NONE

Schedule H - Part 1 - Analysis of Underwriting Operations

NONE

Schedule H - Part 2 - Reserves and Liabilities

NONE

Schedule H - Part 3 - Prior Year's Claim Reserves and Liabilities

NONE

Schedule H - Part 4 - Reinsurance

NONE

Schedule H - Part 5 - Health Claims

NONE

Schedule S - Part 1 - Section 1

NONE

Schedule S - Part 1 - Section 2

NONE

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

SCHEDULE S - PART 2

Reinsurance Recoverable on Paid and Unpaid Losses Listed by Reinsuring Company as of December 31, Current Year

1 NAIC Company Code	2 ID Number	3 Effective Date	4 Name of Company	5 Domiciliary Jurisdiction	6 Paid Losses	7 Unpaid Losses
65935	04-1590850	09/07/1983	Massachusetts Mutual Life Insurance Company	MA		904,674
65935	04-1590850	01/01/2000	Massachusetts Mutual Life Insurance Company	MA	1,806,991	3,584,089
0299999. Life and Annuity - U.S. Affiliates - Other					1,806,991	4,488,763
0399999. Total Life and Annuity - U.S. Affiliates					1,806,991	4,488,763
0699999. Total Life and Annuity - Non-U.S. Affiliates						
0799999. Total Life and Annuity - Affiliates					1,806,991	4,488,763
86258	13-2572994	02/08/1999	General Re Life Corp. (C081)	CT	134,455	589,034
65676	35-0472300	02/08/1999	Lincoln National Life Ins. Co. (LN81)	IN	204,127	867,496
66346	58-0828824	02/08/1999	Munich American Reassurance Co (MU81)	GA	78,723	1,409,765
66346	58-0828824	01/01/1999	Munich American Reassurance Co (MU82)	GA	142,012	258,140
93572	43-1235868	01/01/1999	RGA Reinsurance Co. (A282)	MO	329,281	299,737
93572	43-1235868	02/08/1999	RGA Reinsurance Co. (GA81)	MO	216,092	867,496
0899999. Life and Annuity - U.S. Non-Affiliates					1,104,690	4,291,668
1099999. Total Life and Annuity - Non-Affiliates					1,104,690	4,291,668
1199999. Total Life and Annuity					2,911,681	8,780,431
1499999. Total Accident and Health - U.S. Affiliates						
1799999. Total Accident and Health - Non-U.S. Affiliates						
1899999. Total Accident and Health - Affiliates						
2199999. Total Accident and Health - Non-Affiliates						
2299999. Total Accident and Health						
2399999. Total U.S. (Sum of 0399999, 0899999, 1499999 and 1999999)					2,911,681	8,780,431
2499999. Total Non-U.S. (Sum of 0699999, 0999999, 1799999 and 2099999)						
9999999 Totals - Life, Annuity and Accident and Health					2,911,681	8,780,431

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

SCHEDULE S - PART 3 - SECTION 1

Reinsurance Ceded Life Insurance, Annuities, Deposit Funds and Other Liabilities Without Life or Disability Contingencies, and Related Benefits Listed by Reinsuring Company as of December 31, Current Year

1 NAIC Company Code	2 ID Number	3 Effective Date	4 Name of Company	5 Domi- ciliary Juris- diction	6 Type of Reinsurance Ceded	7 Type of Business Ceded	8 Amount in Force at End of Year	Reserve Credit Taken		11 Premiums	Outstanding Surplus Relief		14 Modified Coinsurance Reserve	15 Funds Withheld Under Coinsurance
								9 Current Year	10 Prior Year		12 Current Year	13 Prior Year		
65935	04-1590850	09/07/1983	Massachusetts Mutual Life Insurance Co.	MA	YRT/I	OL	587,676,526	5,960,645	6,228,044	7,057,869				
65935	04-1590850	01/01/1997	Massachusetts Mutual Life Insurance Co.	MA	OTH/I	OL				230,897				
0299999. General Account - Authorized U.S. Affiliates - Other							587,676,526	5,960,645	6,228,044	7,288,766				
0399999. Total General Account - Authorized U.S. Affiliates							587,676,526	5,960,645	6,228,044	7,288,766				
0699999. Total General Account - Authorized Non-U.S. Affiliates														
0799999. Total General Account - Authorized Affiliates							587,676,526	5,960,645	6,228,044	7,288,766				
80659	38-0397420	03/01/1996	Canada Life Assurance Co. (CR57)	MI	YRT/G	OL	734,304	2,372	2,235	1,812				
68276	48-1024691	01/01/1999	Employers Reassurance Corp. (ER82)	KS	YRT/I	OL				7				
86258	13-2572994	02/08/1999	General Re Life Corp. (CO81)	CT	YRT/I	OL	277,973,085	1,991,931	1,989,879	1,217,074				
65676	35-0472300	01/05/1983	Lincoln National Life Ins. Co. (LN16)	IN	YRT/G	OL	3,133,726	10,122	9,538	8,413				
65676	35-0472300	02/08/1999	Lincoln National Life Ins. Co. (LN81)	IN	YRT/I	OL	421,967,149	3,023,909	3,022,421	1,822,918				
66346	58-0828824	05/01/1994	Munich American Reassurance (CA48)	GA	YRT/G	OL	210,310	679	640	474				
66346	58-0828824	02/08/1999	Munich American Reassurance (MU81)	GA	YRT/I	OL	702,443,617	5,033,778	5,028,495	2,823,230				
66346	58-0828824	01/01/1999	Munich American Reassurance (MU82)	GA	YRT/I	OL	220,845,454	1,823,419	1,880,727	1,146,532				
93572	43-1235868	05/01/1994	RGA Reinsurance Co. (AZ51)	MO	YRT/G	OL	819,365	2,647	2,494	1,809				
93572	43-1235868	01/01/1999	RGA Reinsurance Co. (AZ82)	MO	YRT/I	OL	265,399,861	2,190,709	2,259,664	1,753,230				
93572	43-1235868	09/14/1981	RGA Reinsurance Co. (GA11)	MO	YRT/G	OL			2,186	(1,655)				
93572	43-1235868	02/08/1999	RGA Reinsurance Co. (GA81)	MO	YRT/I	OL	421,967,149	3,023,909	3,022,421	1,795,558				
68713	84-0499703	03/01/1996	Security Life of Denver Ins. Co. (SD46)	CO	YRT/G	OL	1,901,987	6,143	5,789	4,118				
82627	06-0839705	12/31/2016	Swiss Re Life & Health America (SR16V)	MO	MCO/I	OL	1,796,226,724			122,016,560			122,016,560	
82627	06-0839705	03/01/1996	Swiss Re Life & Health America (SR59)	MO	YRT/G	OL	4,092,487	13,219	12,457	12,405				
0899999. General Account - Authorized U.S. Non-Affiliates							4,117,715,218	17,122,837	17,238,946	132,602,485			122,016,560	
1099999. Total General Account - Authorized Non-Affiliates							4,117,715,218	17,122,837	17,238,946	132,602,485			122,016,560	
1199999. Total General Account Authorized							4,705,391,744	23,083,482	23,466,990	139,891,251			122,016,560	
1499999. Total General Account - Unauthorized U.S. Affiliates														
1799999. Total General Account - Unauthorized Non-U.S. Affiliates														
1899999. Total General Account - Unauthorized Affiliates														
2199999. Total General Account - Unauthorized Non-Affiliates														
2299999. Total General Account Unauthorized														
2599999. Total General Account - Certified U.S. Affiliates														
2899999. Total General Account - Certified Non-U.S. Affiliates														
2999999. Total General Account - Certified Affiliates														
3299999. Total General Account - Certified Non-Affiliates														
3399999. Total General Account Certified														
3499999. Total General Account Authorized, Unauthorized and Certified							4,705,391,744	23,083,482	23,466,990	139,891,251			122,016,560	
65935	04-1590850	01/01/2000	Massachusetts Mutual Life Insurance Co.	MA	MCO/G	OL	2,262,078,867			1,135			1,076,615,887	
3699999. Separate Accounts - Authorized U.S. Affiliates - Other							2,262,078,867			1,135			1,076,615,887	
3799999. Total Separate Accounts - Authorized U.S. Affiliates							2,262,078,867			1,135			1,076,615,887	
4099999. Total Separate Accounts - Authorized Non-U.S. Affiliates														
4199999. Total Separate Accounts - Authorized Affiliates							2,262,078,867			1,135			1,076,615,887	
82627	06-0839705	12/31/2016	Swiss Re Life & Health America (SR16V)	MO	MCO/I	OL							677,664,644	
4299999. Separate Accounts - Authorized U.S. Non-Affiliates													677,664,644	
4499999. Total Separate Accounts - Authorized Non-Affiliates													677,664,644	
4599999. Total Separate Accounts Authorized							2,262,078,867			1,135			1,754,280,531	
4899999. Total Separate Accounts - Unauthorized U.S. Affiliates														
5199999. Total Separate Accounts - Unauthorized Non-U.S. Affiliates														
5299999. Total Separate Accounts - Unauthorized Affiliates														
5599999. Total Separate Accounts - Unauthorized Non-Affiliates														
5699999. Total Separate Accounts Unauthorized														
5999999. Total Separate Accounts - Certified U.S. Affiliates														
6299999. Total Separate Accounts - Certified Non-U.S. Affiliates														
6399999. Total Separate Accounts - Certified Affiliates														
6699999. Total Separate Accounts - Certified Non-Affiliates														
6799999. Total Separate Accounts Certified														

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

SCHEDULE S - PART 3 - SECTION 1

Reinsurance Ceded Life Insurance, Annuities, Deposit Funds and Other Liabilities Without Life or Disability Contingencies, and Related Benefits Listed by Reinsuring Company as of December 31, Current Year

1 NAIC Company Code	2 ID Number	3 Effective Date	4 Name of Company	5 Domi- ciliary Juris- diction	6 Type of Reinsurance Ceded	7 Type of Business Ceded	8 Amount in Force at End of Year	Reserve Credit Taken		11 Premiums	Outstanding Surplus Relief		14 Modified Coinsurance Reserve	15 Funds Withheld Under Coinsurance
								9 Current Year	10 Prior Year		12 Current Year	13 Prior Year		
6899999. Total Separate Accounts Authorized, Unauthorized and Certified							2,262,078.867			1,135			1,754,280,531	
6999999. Total U.S. (Sum of 0399999, 0899999, 1499999, 1999999, 2599999, 3099999, 3799999, 4299999, 4899999, 5399999, 5999999 and 6499999)							6,967,470.611	23,083,482	23,466,990	139,892,386			1,876,297,091	
7099999. Total Non-U.S. (Sum of 0699999, 0999999, 1799999, 2099999, 2899999, 3199999, 4099999, 4399999, 5199999, 5499999, 6299999 and 6599999)														
9999999 - Totals							6,967,470.611	23,083,482	23,466,990	139,892,386			1,876,297,091	

Schedule S - Part 3 - Section 2

NONE

Schedule S - Part 4

NONE

Schedule S - Part 4 - Bank Footnote

NONE

Schedule S - Part 5

NONE

Schedule S - Part 5 - Bank Footnote

NONE

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

SCHEDULE S - PART 6

Five Year Exhibit of Reinsurance Ceded Business
(000 OMITTED)

	1 2016	2 2015	3 2014	4 2013	5 2012
A. OPERATIONS ITEMS					
1. Premiums and annuity considerations for life and accident and health contracts	139,892	18,413	18,350	17,451	19,228
2. Commissions and reinsurance expense allowances	61,255	5,632	5,523	5,397	5,254
3. Contract claims	25,185	26,267	26,420	25,158	23,503
4. Surrender benefits and withdrawals for life contracts					
5. Dividends to policyholders					
6. Reserve adjustments on reinsurance ceded	112,686	(15,069)	(12,815)	(10,107)	(8,328)
7. Increase in aggregate reserve for life and accident and health contracts	(384)	41	(543)	(1,317)	(9,171)
B. BALANCE SHEET ITEMS					
8. Premiums and annuity considerations for life and accident and health contracts deferred and uncollected	611	652	194	(480)	1,520
9. Aggregate reserves for life and accident and health contracts	23,083	23,467	23,426	23,969	25,286
10. Liability for deposit-type contracts					
11. Contract claims unpaid	8,780	5,642	4,901	7,379	5,060
12. Amounts recoverable on reinsurance	2,912	5,325	7,225	2,686	5,259
13. Experience rating refunds due or unpaid	1,564	1,572	2,028	2,757	2,516
14. Policyholders' dividends (not included in Line 10)					
15. Commissions and reinsurance expense allowances due	16,908	19,537	21,245	18,612	25,205
16. Unauthorized reinsurance offset					
17. Offset for reinsurance with Certified Reinsurers					
C. UNAUTHORIZED REINSURANCE (DEPOSITS BY AND FUNDS WITHHELD FROM)					
18. Funds deposited by and withheld from (F)					
19. Letters of credit (L)					
20. Trust agreements (T)					
21. Other (O)					
D. REINSURANCE WITH CERTIFIED REINSURERS (DEPOSITS BY AND FUNDS WITHHELD FROM)					
22. Multiple Beneficiary Trust					
23. Funds deposited by and withheld from (F)					
24. Letters of credit (L)					
25. Trust agreements (T)					
26. Other (O)					

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

SCHEDULE S - PART 7

Restatement of Balance Sheet to Identify Net Credit for Ceded Reinsurance

	1 As Reported (net of ceded)	2 Restatement Adjustments	3 Restated (gross of ceded)
ASSETS (Page 2, Col. 3)			
1. Cash and invested assets (Line 12)	472,063,292		472,063,292
2. Reinsurance (Line 16)	21,383,440	(21,383,440)	
3. Premiums and considerations (Line 15)	(2,079,380)	610,865	(1,468,515)
4. Net credit for ceded reinsurance	XXX	56,087,823	56,087,823
5. All other admitted assets (balance)	10,868,286		10,868,286
6. Total assets excluding Separate Accounts (Line 26)	502,235,638	35,315,249	537,550,887
7. Separate Account assets (Line 27)	4,312,051,379		4,312,051,379
8. Total assets (Line 28)	4,814,287,017	35,315,249	4,849,602,266
LIABILITIES, CAPITAL AND SURPLUS (Page 3)			
9. Contract reserves (Lines 1 and 2)	138,538,127	23,083,482	161,621,609
10. Liability for deposit-type contracts (Line 3)	11,548,399		11,548,399
11. Claim reserves (Line 4)	3,824,460	8,780,431	12,604,891
12. Policyholder dividends/reserves (Lines 5 through 7)			
13. Premium & annuity considerations received in advance (Line 8)	2,438		2,438
14. Other contract liabilities (Line 9)	11,446,569	3,421,656	14,868,225
15. Reinsurance in unauthorized companies (Line 24.02 minus inset amount)			
16. Funds held under reinsurance treaties with unauthorized reinsurers (Line 24.03 minus inset amount)			
17. Reinsurance with Certified Reinsurers (Line 24.02 inset amount)			
18. Funds held under reinsurance treaties with Certified Reinsurers (Line 24.03 inset amount)			
19. All other liabilities (balance)	48,581,206	29,680	48,610,886
20. Total liabilities excluding Separate Accounts (Line 26)	213,941,199	35,315,249	249,256,448
21. Separate Account liabilities (Line 27)	4,312,051,379		4,312,051,379
22. Total liabilities (Line 28)	4,525,992,578	35,315,249	4,561,307,827
23. Capital & surplus (Line 38)	288,294,439	XXX	288,294,439
24. Total liabilities, capital & surplus (Line 39)	4,814,287,017	35,315,249	4,849,602,266
NET CREDIT FOR CEDED REINSURANCE			
25. Contract reserves	23,083,482		
26. Claim reserves	8,780,431		
27. Policyholder dividends/reserves			
28. Premium & annuity considerations received in advance			
29. Liability for deposit-type contracts			
30. Other contract liabilities	3,421,656		
31. Reinsurance ceded assets	21,383,440		
32. Other ceded reinsurance recoverables			
33. Total ceded reinsurance recoverables	56,669,009		
34. Premiums and considerations	610,865		
35. Reinsurance in unauthorized companies			
36. Funds held under reinsurance treaties with unauthorized reinsurers			
37. Reinsurance with Certified Reinsurers			
38. Funds held under reinsurance treaties with Certified Reinsurers			
39. Other ceded reinsurance payables/offsets	(29,680)		
40. Total ceded reinsurance payable/offsets	581,185		
41. Total net credit for ceded reinsurance	56,087,823		

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State Life Insurance Company
SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Allocated by States and Territories

States, Etc.	1	Life Contracts		Direct Business Only			
		2	3	4	5	6	7
	Active Status	Life Insurance Premiums	Annuity Considerations	Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees	Other Considerations	Total Columns 2 through 5	Deposit-Type Contracts
1. Alabama	AL	L	213,208			213,208	
2. Alaska	AK	L	23,620			23,620	
3. Arizona	AZ	L	933,338			933,338	
4. Arkansas	AR	L	70,860			70,860	
5. California	CA	L	4,381,306			4,381,306	
6. Colorado	CO	L	809,269			809,269	
7. Connecticut	CT	L	665,582			665,582	
8. Delaware	DE	L	84,253			84,253	
9. District of Columbia	DC	L	157,953			157,953	
10. Florida	FL	L	2,363,807			2,363,807	
11. Georgia	GA	L	695,516			695,516	
12. Hawaii	HI	L	201,711			201,711	
13. Idaho	ID	L	60,429			60,429	
14. Illinois	IL	L	1,369,433			1,369,433	
15. Indiana	IN	L	650,809			650,809	
16. Iowa	IA	L	605,459	1,800		607,259	
17. Kansas	KS	L	391,214			391,214	
18. Kentucky	KY	L	311,487	6,000		317,487	
19. Louisiana	LA	L	399,568			399,568	
20. Maine	ME	L	185,884			185,884	
21. Maryland	MD	L	1,179,440	1,260		1,180,700	
22. Massachusetts	MA	L	968,517			968,517	
23. Michigan	MI	L	1,723,134	6,200		1,729,334	
24. Minnesota	MN	L	456,198			456,198	
25. Mississippi	MS	L	240,128			240,128	
26. Missouri	MO	L	570,370			570,370	
27. Montana	MT	L	280,593			280,593	
28. Nebraska	NE	L	464,259	1,800		466,059	
29. Nevada	NV	L	281,149			281,149	
30. New Hampshire	NH	L	180,047			180,047	
31. New Jersey	NJ	L	1,560,489			1,560,489	
32. New Mexico	NM	L	105,155			105,155	
33. New York	NY	N	177,378			177,378	
34. North Carolina	NC	L	1,203,355			1,203,355	
35. North Dakota	ND	L	6,342			6,342	
36. Ohio	OH	L	1,320,984			1,320,984	
37. Oklahoma	OK	L	960,679			960,679	
38. Oregon	OR	L	398,498			398,498	
39. Pennsylvania	PA	L	2,148,168	3,500		2,151,668	
40. Rhode Island	RI	L	176,786			176,786	
41. South Carolina	SC	L	724,063			724,063	
42. South Dakota	SD	L	44,631			44,631	
43. Tennessee	TN	L	673,819			673,819	
44. Texas	TX	L	3,068,505			3,068,505	
45. Utah	UT	L	375,431			375,431	
46. Vermont	VT	L	90,405	1,200		91,605	
47. Virginia	VA	L	1,576,194			1,576,194	
48. Washington	WA	L	722,200			722,200	
49. West Virginia	WV	L	178,926			178,926	
50. Wisconsin	WI	L	426,473			426,473	
51. Wyoming	WY	L	27,381			27,381	
52. American Samoa	AS	N					
53. Guam	GU	N					
54. Puerto Rico	PR	N					
55. U.S. Virgin Islands	VI	N					
56. Northern Mariana Islands	MP	N					
57. Canada	CAN	N					
58. Aggregate Other Alien	OT	XXX	202,454			202,454	
59. Subtotal	(a)	50	37,086,857	21,760		37,108,617	
90. Reporting entity contributions for employee benefits plans	XXX						
91. Dividends or refunds applied to purchase paid-up additions and annuities	XXX						
92. Dividends or refunds applied to shorten endowment or premium paying period	XXX						
93. Premium or annuity considerations waived under disability or other contract provisions	XXX		340,867			340,867	
94. Aggregate or other amounts not allocable by State	XXX						
95. Totals (Direct Business)	XXX		37,427,724	21,760		37,449,484	
96. Plus reinsurance assumed	XXX						
97. Totals (All Business)	XXX		37,427,724	21,760		37,449,484	
98. Less reinsurance ceded	XXX		139,933,022			139,933,022	
99. Totals (All Business) less Reinsurance Ceded	XXX		(102,505,298)	21,760	(b)	(102,483,538)	
DETAILS OF WRITE-INS							
58001. ZZZ Other Alien	XXX		202,454			202,454	
58002.	XXX						
58003.	XXX						
58998. Summary of remaining write-ins for Line 58 from overflow page	XXX						
58999. Totals (Lines 58001 through 58003 plus 58998)(Line 58 above)	XXX		202,454			202,454	
9401.	XXX						
9402.	XXX						
9403.	XXX						
9498. Summary of remaining write-ins for Line 94 from overflow page	XXX						
9499. Totals (Lines 9401 through 9403 plus 9498)(Line 94 above)	XXX						

(L) Licensed or Chartered - Licensed Insurance Carrier or Domiciled RRG; (R) Registered - Non-domiciled RRGs; (Q) Qualified - Qualified or Accredited Reinsurer; (E) Eligible - Reporting Entities eligible or approved to write Surplus Lines in the state; (N) None of the above - Not allowed to write business in the state.

Explanation of basis of allocation by states, etc., of premiums and annuity considerations

Individual insurance premiums and annuity considerations - allocated to the states in which the policyholder resides (based on Company records when the premium is received).
 Group premiums - allocated consistent with the 500 lives rule.

(a) Insert the number of L responses except for Canada and Other Alien.

(b) Column 4 should balance with Exhibit 1, Lines 6.4, 10.4, and 16.4, Cols. 8, 9, 10, or with Schedule H, Part 1, Line 1, indicate which: Exhibit 1, Lines 6.4, 10.4, and 16.4, Cols. 8, 9, 10.

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

SCHEDULE T - PART 2
INTERSTATE COMPACT - EXHIBIT OF PREMIUMS WRITTEN

Allocated by States and Territories

States, Etc.		Direct Business Only					Totals
		1 Life (Group and Individual)	2 Annuities (Group and Individual)	3 Disability Income (Group and Individual)	4 Long-Term Care (Group and Individual)	5 Deposit-Type Contracts	
1. Alabama	AL	213,208					213,208
2. Alaska	AK	23,620					23,620
3. Arizona	AZ	933,338					933,338
4. Arkansas	AR	70,860					70,860
5. California	CA	4,381,306					4,381,306
6. Colorado	CO	809,269					809,269
7. Connecticut	CT	665,582					665,582
8. Delaware	DE	84,253					84,253
9. District of Columbia	DC	157,953					157,953
10. Florida	FL	2,363,807					2,363,807
11. Georgia	GA	695,516					695,516
12. Hawaii	HI	201,711					201,711
13. Idaho	ID	60,429					60,429
14. Illinois	IL	1,369,433					1,369,433
15. Indiana	IN	650,809					650,809
16. Iowa	IA	605,459	1,800				607,259
17. Kansas	KS	391,214					391,214
18. Kentucky	KY	311,487	6,000				317,487
19. Louisiana	LA	399,568					399,568
20. Maine	ME	185,884					185,884
21. Maryland	MD	1,179,440	1,260				1,180,700
22. Massachusetts	MA	968,517					968,517
23. Michigan	MI	1,723,134	6,200				1,729,334
24. Minnesota	MN	456,198					456,198
25. Mississippi	MS	240,128					240,128
26. Missouri	MO	570,370					570,370
27. Montana	MT	280,593					280,593
28. Nebraska	NE	464,259	1,800				466,059
29. Nevada	NV	281,149					281,149
30. New Hampshire	NH	180,047					180,047
31. New Jersey	NJ	1,560,489					1,560,489
32. New Mexico	NM	105,155					105,155
33. New York	NY	177,378					177,378
34. North Carolina	NC	1,203,355					1,203,355
35. North Dakota	ND	6,342					6,342
36. Ohio	OH	1,320,984					1,320,984
37. Oklahoma	OK	960,679					960,679
38. Oregon	OR	398,498					398,498
39. Pennsylvania	PA	2,148,168	3,500				2,151,668
40. Rhode Island	RI	176,786					176,786
41. South Carolina	SC	724,063					724,063
42. South Dakota	SD	44,631					44,631
43. Tennessee	TN	673,819					673,819
44. Texas	TX	3,068,505					3,068,505
45. Utah	UT	375,431					375,431
46. Vermont	VT	90,405	1,200				91,605
47. Virginia	VA	1,576,194					1,576,194
48. Washington	WA	722,200					722,200
49. West Virginia	WV	178,926					178,926
50. Wisconsin	WI	426,473					426,473
51. Wyoming	WY	27,381					27,381
52. American Samoa	AS						
53. Guam	GU						
54. Puerto Rico	PR						
55. U.S. Virgin Islands	VI						
56. Northern Mariana Islands	MP						
57. Canada	CAN						
58. Aggregate Other Alien	OT	202,454					202,454
59. Total		37,086,857	21,760				37,108,617

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

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY	04-1590850	65935	Massachusetts
Direct & Indirect Owned Subsidiaries:			
C.M. Life Insurance Company	06-1041383	93432	Connecticut
MML Bay State Life Insurance Company	43-0581430	70416	Connecticut
CML Mezzanine Investor, LLC	06-1041383		Delaware
CML Mezzanine Investor L, LLC	06-1041383		Delaware
CML Mezzanine Investor III, LLC	06-1041383		Delaware
CML Special Situations Investor LLC	None		Delaware
MML Mezzanine Investor L, LLC	04-1590850		Delaware
Berkshire Way LLC	04-1590850		Delaware
MML Special Situations Investor LLC	None		Delaware
Timberland Forest Holding LLC	47-5322979		Delaware
Lyme Adirondack Forest Company, LLC	None		Delaware
Lyme Adirondack Timber Sales, Inc.	20-5305426		New York
Lyme Adirondack Timberlands I, LLC	None		Delaware
Lyme Adirondack Timberlands II, LLC	None		Delaware
WP-SC, LLC*	26-4441097		Delaware
MSP-SC, LLC	04-1590850		Delaware
MSI Financial Services, Inc.	13-3175978		Delaware
Country Club Office Plaza LLC*	27-1435692		Delaware
Invicta Advisors LLC	56-2574604		Delaware
Jefferies Finance LLC*	27-0105644		Delaware
Apex Credit Partners LLC	None		Delaware
JFIN Fund III LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware
JFIN Co-Issuer Corporation	None		Delaware
JFIN Europe GP, S.a.r.l.	None		Luxembourg
Jefferies Finance Europe, SCSp	None		Luxembourg
Jefferies Finance Business Credit LLC	None		Delaware
JFIN Business Credit Fund I LLC	None		Delaware
JFIN High Yield Investments LLC	None		Delaware
JFIN LC Fund LLC	None		Delaware
JFIN Revolver CLO Holdings LLC	None		Delaware
JFIN CLO 2007 Ltd.	None		Cayman Islands
JFIN CLO 2012 Ltd.	None		Cayman Islands
JFIN CLO 2013 Ltd.	None		Cayman Islands
JFIN CLO 2014 Ltd.	None		Cayman Islands
JFIN CLO 2014-II Ltd.	None		Cayman Islands
JFIN MM CLO 2014 Ltd.*	None		Cayman Islands

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

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
JFIN CLO 2015 Ltd.*	None		Cayman Islands
JFIN CLO 2015-II Ltd.*	None		Cayman Islands
JFIN Revolver CLO Ltd.	None		Cayman Islands
JFIN Revolver CLO 2014 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2015 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2015-II Ltd.	None		Cayman Islands
JFIN CLO 2016 Ltd.*	None		Cayman Islands
MassMutual Retirement Services, LLC	04-1590850		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Mezzanine Investor, LLC	04-1590850		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MMC Equipment Finance LLC	04-1590850		Delaware
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2009-A	27-1379258		Delaware
MMAF Equipment Finance LLC 2011-A	45-2589019		Delaware
MML Private Placement Investment Company I, LLC	04-1590850		Delaware
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
Pioneers Gate LLC	45-2738137		Delaware
MSC Holding Company, LLC	45-4376777		Delaware
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
MassMutual Holding LLC	04-2854319		Delaware
Fern Street LLC	37-1732913		Delaware
First Mercantile Trust Company	62-0951563		Tennessee
Haven Life Insurance Agency, LLC	46-2252944		Delaware
MassMutual Assignment Company	06-1597528		North Carolina
MassMutual Capital Partners LLC	04-1590850		Delaware
MassMutual Ventures LLC	47-1296410		Delaware
MM Rothesay Holdco US LLC	04-1590850		Delaware
MML Investors Services, LLC	04-1590850		Massachusetts
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
Society of Grownups, LLC	47-1466022		Massachusetts
MM Asset Management Holding LLC	45-4000072		Delaware
Barings LLC	51-0504477		Delaware
Barings Finance LLC	80-0875475		Delaware
BCF Europe Funding Limited	None		Ireland
BCF Senior Funding I LLC	None		Delaware
BCF Senior Funding I Designated Activity Company	None		Ireland

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

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Barings Securities LLC	04-3238351		Delaware
Barings Guernsey Limited	98-0437588		Guernsey
Barings (UK) Limited	98-0432153		United Kingdom
Barings GPC GP S.à.r.l.	None		Luxembourg
Almack Mezzanine GP III Limited	None		United Kingdom
Almack Holding Partnership GP Limited	None		United Kingdom
Almack Mezzanine Fund Limited	None		United Kingdom
Almack Mezzanine Fund II Limited	None		United Kingdom
Barings Global Advisors Limited	98-1012393		United Kingdom
BCGSS 2 GP LLP	None		United Kingdom
Babson European Direct Lending 1 GP LLP	None		United Kingdom
Barings Advisers (Japan) KK	None		Japan
Barings Multifamily Capital Holdings LLC	None		Delaware
Barings Multifamily Capital LLC	None		Michigan
Barings Multifamily Capital Corporation	None		Delaware
Barings Real Estate Advisers Inc.	04-3238351		California
Barings Real Estate Advisers Japan KK	None		Japan
Barings Real Estate UK Holdings Limited	None		Delaware
BREAE AIFM LLP	None		United Kingdom
Barings Real Estate Advisers (Continental Europe) Limited	98-0654401		United Kingdom
Barings Real Estate Advisers Europe LLP	98-0654388		United Kingdom
Barings Real Estate Advisers Europe Finance LLP	98-0654412		United Kingdom
Barings Real Estate Advisers GmbH	98-1194368		Germany
MassMutual Baring Holding LLC	04-1590850		Delaware
Baring North America LLC	98-0241935		Massachusetts
MassMutual Holdings (Bermuda) Limited	None		Bermuda
Baring Asset Management Limited	98-0241935		United Kingdom
Baring International Investment Limited	98-0457328		United Kingdom
Baring International Investment Management Holdings Limited	98-0457587		United Kingdom
Baring Asset Management UK Holdings Limited	98-0457576		United Kingdom
Baring Asset Management GmbH	98-0465031		Germany
Baring Asset Management (Asia) Holdings Limited	98-0524271		Hong Kong, Special Administrative Region of China
Baring International Fund Managers (Bermuda) Limited	98-0457465		Bermuda
Baring Asset Management (Asia) Limited	98-0457463		Hong Kong, Special Administrative Region of China
Baring Asset Management Korea Limited	None		Korea
Baring Asset Management (Japan) Limited	98-0236449		Japan
Baring Asset Management (Australia) Pty Limited	98-0457456		Australia
Baring International Fund Managers (Ireland) Limited	98-0524272		Ireland
Baring Asset Management Switzerland Sàrl	None		Switzerland
Baring SICE (Taiwan) Limited	98-0457707		Taiwan ROC

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

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Baring France SAS	98-0497550		France
Baring Fund Managers Limited	98-0457586		United Kingdom
Baring Pension Trustees Limited	98-0457574		United Kingdom
Baring Investment Services Limited	98-0457578		United Kingdom
Barings Australia Holding Company Pty Ltd	None		Australia
Barings Australia Pty Ltd	98-0457456		Australia
Barings Investment Advisers (Hong Kong) Limited	None		Hong Kong, Special Administrative Region of China
Alchemy Copyrights, LLC.*	47-2642354		Delaware
Chassis Acquisition Holding LLC	81-2244465		Delaware
CRA Aircraft Holding LLC*	81-4258759		Delaware
Milestone Acquisition Holding, LLC.	47-3055009		Delaware
Red Lake Ventures, LLC	46-5460309		Delaware
Remington L & W Holdings LLC*	81-4065378		Connecticut
Solar Acquisition Holding, LLC	None		Delaware
Sweet Tree Holdings 1, LLC	46-3123110		Delaware
Tamiami Citrus, LLC	None		Delaware
Teaktree Acquisition, LLC	None		Delaware
U.S. Buyer Broadcasting, LLC	47-1855920		Delaware
U.S. WIG Holdings, LP	46-1500495		Delaware
U.S. Pharmaceuticals Holdings II, LLC	47-5436800		Delaware
VGS Acquisition Holding, LLC	None		Delaware
WC Aircraft Holdings US II, LLC	46-3378584		Delaware
Wood Creek Aircraft Holding I, LP	None		Cayman Islands
Babson Capital Floating Rate Income Fund Management, LLC	04-1590850		Delaware
Babson Global Loan Feeder Management, LLC	None		Delaware
Barings CLO Investment Partners GP, LLC	None		Delaware
Barings Global Energy Infrastructure Advisors, LLC	None		Delaware
Barings North American Private Loan Fund Management, LLC	None		Delaware
Barings TERO Management LLC	None		Delaware
Benton Street Advisors, Inc.	98-0536233		Cayman Islands
Great Lakes III GP, LLC	04-1590850		Delaware
Loan Strategies Management LLC	04-1590850		Delaware
Mezzco LLC	04-1590850		Delaware
Mezzco II LLC	02-0767001		Delaware
Mezzco III LLC	41-2280126		Delaware
Mezzco IV LLC	80-0920285		Delaware
Mezzco Australia LLC	90-0666326		Delaware
Mezzco Australia II LLC	None		Delaware
SDCOS Management LLC	04-1590850		Delaware
Somerset Special Opportunities Management LLC	04-1590850		Delaware

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

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Oppenheimer Acquisition Corp.	84-1149206		Delaware
OppenheimerFunds, Inc.	13-2527171		Colorado
OppenheimerFunds Distributor, Inc.	13-2953455		New York
Oppenheimer Real Asset Management, Inc.	84-1106295		Delaware
OFI Global Institutional, Inc.	13-4160541		New York
OFI Global Trust Company	13-3459790		New York
OFI International, Ltd.	None		United Kingdom
HarbourView Asset Management Corporation	22-2697140		New York
Trinity Investment Management Corporation	25-1951632		Pennsylvania
OFI SteelPath, Inc.	84-1128397		Delaware
Shareholder Services, Inc.	84-1066811		Colorado
VTL Associates, LLC	None		Pennsylvania
Index Management Solutions, LLC	None		Pennsylvania
OFI Global Asset Management, Inc.	84-0765063		Delaware
OFI Private Investments Inc.	91-2036414		New York
Tremont Group Holdings, LLC	62-1210532		New York
Tremont Partners, LLC	06-1121864		Connecticut
Tremont GP, LLC	20-8215352		Delaware
Settlement Agent LLC	90-0874510		Delaware
Tremont (Bermuda) Limited	None		Bermuda
MassMutual International LLC	04-3313782		Delaware
MassMutual Asia Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Asia Investors Ltd.	None		Hong Kong, Special Administrative Region of China
MassMutual Guardian Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Insurance Consultants Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Services Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Trustees Limited	None		Hong Kong, Special Administrative Region of China
Protective Capital (International) Limited	98-0610331		Hong Kong, Special Administrative Region of China
MassMutual Life Insurance Company	None		Japan
MassMutual Internacional (Chile) SpA	98-1033127		Chile
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MML Mezzanine Investor II, LLC	04-1590850		Delaware
MML Mezzanine Investor III, LLC	04-1590850		Delaware
MassMutual External Benefits Group LLC	27-3576835		Delaware
Cornerstone Global REIT Corporation	20-8730751		Delaware
Other Affiliates & Funds:			
100 w. 3 rd Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	04-1590850		Delaware

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

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
300 South Tryon LLC	04-1590850		Delaware
54 West Capital LLC	20-3887968		Delaware
Alexandria Towers Investors LLC	16-1720387		Delaware
Almack Mezzanine Fund I LP*	None		United Kingdom
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Almack Mezzanine Fund III LP*	None		United Kingdom
Barings Emerging Markets Corporate Bond Fund	None		Ireland
Barings Emerging Markets Local Debt Fund	None		Ireland
Barings Global Special Situations Credit Fund 1	None		Ireland
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		Delaware
Babson Capital Loan Strategies Fund, L.P.*	37-1506417		Delaware
Barings US High Yield Bond Fund*	None		Ireland
Babson CLO Ltd. 2007-I	None		Cayman Islands
Babson CLO Ltd. 2012-I	None		Cayman Islands
Babson CLO Ltd. 2012-II	None		Cayman Islands
Babson CLO Ltd. 2013-I	None		Cayman Islands
Babson CLO Ltd. 2013-II	98-1128827		Cayman Islands
Babson CLO Ltd. 2014-I	None		Cayman Islands
Babson CLO Ltd. 2014-II	None		Cayman Islands
Babson CLO Ltd. 2014-III	None		Cayman Islands
Babson CLO Ltd. 2015-I	None		Cayman Islands
Babson CLO Ltd. 2015-II	None		Cayman Islands
Babson CLO Ltd. 2016-I	None		Cayman Islands
Babson CLO Ltd. 2016-II	None		Cayman Islands
Babson Euro CLO 2014-I BV	None		Netherlands
Babson Euro CLO 2014-II BV	None		Netherlands
Babson Euro CLO 2015-I BV	None		Netherlands
Babson Euro CLO 2016-I BV	None		Netherlands
Babson Capital Global Credit Fund (Lux) SCSp, SIACV-SIF	None		Luxembourg
Baring Emerging Market Corp Debt Fund	None		Ireland
Baring Focused EAFE Equity Fund	11-3789446		Delaware
Baring Global Dynamic Asset Allocation Fund	30-0607379		Delaware
Baring International Small Cap Equity Fund	26-4142796		Delaware
Barings CLO Investment Partners LP*	81-0841854		Delaware
Barings Real Estate European Value Add I SCSp*	None		United Kingdom
Benton Street Partners I, L.P.*	98-0536233		Cayman Islands
Benton Street Partners II, L.P.*	98-0536199		Cayman Islands
Braemar Energy Ventures I, L.P. *	None		Delaware
Cambridge Hotel, LLC	06-1614196		Delaware
Cheyenne Mountain Resort LLC	04-1590850		Delaware
Barings European Core Property Fund SCSp	None		Luxembourg

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

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Cornerstone Core Mortgage Venture I LP	27-1701622		Delaware
Cornerstone Enhanced Mortgage Fund I LP	45-3751572		Delaware
Cornerstone Global Real Estate LP*	20-8730751		Delaware
Cornerstone High Yield Venture LP	36-4770946		Delaware
Cornerstone Hotel Income and Equity Fund II LP	26-1828760		Delaware
Barings/LAZ Parking Fund LP	46-5437441		Delaware
Barings Core Property Fund LP	20-5578089		Delaware
Cornerstone Real Estate Fund VIII LP	27-0547156		Delaware
Cornerstone Real Estate Fund X LP	46-5432619		Delaware
Duchess VI CLO B.V.	None		United Kingdom
Duchess VII CLO B.V.	None		United Kingdom
E-Wise Land Venture LLC	20-3887968		Delaware
Gateway Mezzanine Partners I, L.P.*	80-0691253		Delaware
Gateway Mezzanine Partners II LP*	90-0991195		Delaware
Great Lakes III, L.P.	37-1708623		Delaware
Kazwell Realty Partners LLC	20-3887968		Delaware
King Alexander LLC	45-3754085		Delaware
Marco Hotel LLC	46-4255307		Delaware
MM Debt Participations LLC*	81-3000420		Delaware
MML O'Hare Hotel LLC	26-3799762		Delaware
Oakley Grove Development LLC	20-3887968		Delaware
Old Pasco Properties LLC	20-3887968		Delaware
Reston Arboretum LLC	75-2901061		Delaware
Riva Portland LLC	30-0713071		Delaware
Rockall CLO B.V.	None		United Kingdom
Rockville Town Center LLC	54-2055778		Virginia
SDCOS L.P.	74-3182902		Delaware
Seattle 1415 Hotel Owner LLC	46-5491311		Delaware
Sedona TFMP Land LLC	04-1590850		Delaware
Somerset Special Opportunities Fund L.P.*	20-8856877		Delaware
South Myrtle Monrovia MM LLC	04-1590850		Delaware
South Pasco Properties LLC	20-3887968		Delaware
Tower Square Capital Partners, L.P.*	04-3722906		Delaware
Tower Square Capital Partners II, L.P.*	30-0336246		Delaware
Tower Square Capital Partners II-A, L.P.*	32-0160190		Delaware
Tower Square Capital Partners III, L.P.*	41-2280127		Delaware
Tower Square Capital Partners IIIA, L.P.	41-2280129		Delaware
Tower Square Capital Partners IV-A, L.P.	80-0920367		Delaware
West 46 th Street Hotel LLC	05-1590850		Delaware
Baring Affiliates & Funds:			
Barings Emerging Markets Debt Blended Total Return Fund	None		Ireland

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

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Barings Emerging Markets Debt Short Duration Fund	None		Ireland
Barings Emerging Markets Sovereign Debt Fund	None		Ireland
Babson Capital Floating Rate Income Fund, L.P.	27-3330830		Delaware
Barings Global Investment Grade Corporate Plus Fund	None		Ireland
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands
Barings Emerging Markets Debt Blended Total Return Fund	47-3758432		Massachusetts
Barings Emerging Markets Local Currency Debt Fund	47-3774453		Massachusetts
Barings Global High Yield Fund	47-3790192		Massachusetts
Baring Greater China Equity Fund	None		Hong Kong
Barings Total Return Bond Fund	47-3734770		Massachusetts
Barings U.S. High Yield Fund	47-3801860		Massachusetts
Gateway Mezzanine Partners I Trust	None		Australia
Great Lakes II LLC*	71-1018134		Delaware
Great Lakes LLC*	56-2505390		Delaware
Intermodal Holding II LLC	46-2344300		Delaware
Somerset Special Opportunities Master Fund LP	None		Cayman Islands
Wood Creek Venture Fund LLC	04-1590850		Delaware
Barings Real Estate Affiliates & Funds:			
12-18 West 55th Street Predevelopment, LLC*	20-2548283		Delaware
50 Liberty LLC*	36-4823011		Delaware
One Harbor Shore LLC*	80-0948028		Delaware
2 Harbor Shore Member LLC*	46-4803557		Delaware
AT Mid-Atlantic Office Portfolio LLC*	45-2779931		Delaware
Barings Global Energy Infrastructure Fund I LP	04-1590850		Kentucky
Budapester Strasse LLC	81-4382111		Delaware
CHC/RFP VI Core LLC	04-1590850		Delaware
Cornerstone California Mortgage Fund I LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC	95-4207717		California
Cornerstone Fort Pierce Development LLC*	56-2630592		Delaware
Cornerstone Permanent Mortgage Fund	45-2632610		Massachusetts
Cornerstone Permanent Mortgage Fund II	61-1750537		Massachusetts
Cornerstone Permanent Mortgage Fund III	35-2531693		Massachusetts
CREA 330 Third LLC*	46-5001122		Delaware
CREA FMF Nashville LLC	46-4367364		Delaware
CREA/LYON West Gateway, LLC*	26-2399532		Delaware
CREA Madison Member LLC	81-0890084		Delaware
CREA/PPC Venture LLC*	20-0348173		Delaware
Fallon Cornerstone One MPD LLC*	26-1611591		Delaware
Fan Pier Development LLC*	20-3347091		Delaware

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

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

51.8

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Farrington London Holdings LLC*	46-3880526		Delaware
Infinity SCD Ltd.	None		United Kingdom
Johnston Groves LLC	20-4819358		Delaware
MM Chatham Office LLC*	81-2871333		Delaware
MMI/Hines Harrison LLC*	46-5347643		Delaware
Salomon Brothers Commercial Mortgage Trust 2001-MM	None		Delaware
Sawgrass Village Shopping Center LLC*	27-2977720		Delaware
Ten Fan Pier Boulevard LLC*	None		Delaware
Twenty Two Liberty LLC*	35-2484550		Massachusetts
UK LIW Manager LLC	45-4606547		Delaware
UK LIW Member LLC	45-4606547		Delaware
Washington Gateway Apartments Venture LLC*	45-5401109		Delaware
Waterford Development Associates	20-2970495		Delaware
Waterloo London Holdings LLC	47-1993493		Delaware
WeHo Domain LLC*	46-3122029		Delaware
Willowood Lakeside Master LLC	81-1552222		Delaware
Ygnatio Valley Funding	20-5481477		Delaware
MassMutual Premier Funds:			
MassMutual Barings Dynamic Allocation Fund	45-3168892		Massachusetts
MassMutual Premier Focused International Fund	02-0754273		Massachusetts
MassMutual Premier Main Street Fund	51-0529328		Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251		Massachusetts
MassMutual Premier Value Fund	04-3277550		Massachusetts
MassMutual Select Funds:			
MassMutual Select Diversified International Fund	14-1980900		Massachusetts
MassMutual Select Diversified Value Fund	01-0821120		Massachusetts
MassMutual Select Fundamental Growth Fund	04-3512593		Massachusetts
MassMutual Select Large Cap Value Fund	04-3513019		Massachusetts
MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MML Series Investment Funds:			
MML Series International Equity Fund	46-4257056		Massachusetts
MML Series Investment Funds II:			
MML Series II Asset Momentum Fund	47-3517233		Massachusetts
MML Series II Dynamic Bond Fund	47-3529636		Massachusetts
MML Series II Equity Rotation Fund	47-3544629		Massachusetts
MML Series II Special Situations Fund	47-3559064		Massachusetts
MassMutual RetireSMART Funds:			
MassMutual RetireSMART 2055 Fund	46-3289207		Massachusetts
MassMutual RetireSMART 2060 Fund	47-5326235		Massachusetts

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

SCHEDULE Y – INFORMATION CONCERNING ACTIVITIES OF INSURER MEMBERS OF A HOLDING COMPANY GROUP

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MassMutual RetireSMART Conservative Fund	45-1618155		Massachusetts
MassMutual RetireSMART Growth Fund	45-1618222		Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262		Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046		Massachusetts
Oppenheimer Funds:			
Oppenheimer Developing Markets Fund	93-6305075		Delaware
Oppenheimer Developing Markets Equity UCITS	None		Ireland
Oppenheimer Emerging Markets Innovators UCITS	None		Ireland
Oppenheimer ESG Revenue ETF	81-3492794		Delaware
Oppenheimer Global ESG Revenue ETF	81-3480754		Delaware
Oppenheimer Global Equity UCITS	None		Ireland
Oppenheimer Global High Yield Fund	45-3417590		Delaware
Oppenheimer Global Multi-Asset Growth Fund	47-3676235		Delaware
Oppenheimer Global Multi-Asset Income Fund	47-1714929		Delaware
Oppenheimer Global Real Estate Fund*	46-1604428		Delaware
Oppenheimer Global Value Equity UCITS	None		Ireland
Oppenhemier International Growth & Income Fund	81-3136071		Delaware
Oppenheimer Macquarie Global Infrastructure Fund	81-1080638		Delaware
Oppenheimer SteelPath Panoramic Fund	47-3987967		Delaware

51.9

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

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0435	Massachusetts Mut Life Ins Co	65935	04-1590850	3848388	0000225602		Massachusetts Mutual Life Insurance Company (MMLIC)	MA	UIP	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	CM Life Ins Co	93432	06-1041383				C.M. Life Insurance Company	CT	LDP	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	MML Baystate Life Ins Co	70416	43-0581430		0000924777		MML Bay State Life Insurance Company	CT	RE	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1041383				CML Mezzanine Investor, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1041383				CML Mezzanine Investor L, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1041383				CML Mezzanine Investor III, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CML Special Situations Investor LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Mezzanine Investor L, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MML Special Situations Investor LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC		
.0000			20-5305426				Lyme Adirondack Forest Company, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timber Sales, Inc.	NY	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timberlands I, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timberlands II, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Berkshire Way LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			26-4441097				WP-SC, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	81.400	MMLIC		
.0000			26-4441097				WP-SC, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	18.600	MMLIC		
.0000			04-1590850				MSP-SC, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			13-3175978				MSI Financial Services, Inc.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			27-1435692				Country Club Office Plaza LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	88.100	MMLIC		
.0000			27-1435692				Country Club Office Plaza LLC	DE	NIA	C.M. Life Insurance Company	Ownership	11.900	MMLIC		
.0000			56-2574604				Invicta Advisors LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			27-0105644				Jefferies Finance LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	50.000	MMLIC		1
.0000							Apex Credit Partners LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Fund III LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Asset Management LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Co-Issuer Corporation	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Europe GP, S.a.r.l.	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Finance Europe, SCSp	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Business Credit Fund I LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN High Yield Investments LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN LC Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2007 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2012 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2013 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2014 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	70.000	MMLIC		
.0000							JFIN CLO 2014 Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership	30.000	MMLIC		
.0000							JFIN CLO 2014-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000							JFIN MM CLO 2014 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2015 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	44.000	MMLIC		
.0000							JFIN CLO 2015 Ltd.	.CYM	NIA	Apex Credit Partners LLC	Ownership	56.000	MMLIC		
.0000							JFIN CLO 2015-II Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	33.000	MMLIC		
.0000							JFIN CLO 2015-II Ltd.	.CYM	NIA	Apex Credit Partners LLC	Ownership	53.000	MMLIC		
.0000							JFIN Revolver CLO Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2014 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2015 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2015-II Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2016 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Retirement Services, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-3356880		0000943903		MML Distributors LLC	.MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MMLIC		
.0000			04-3356880		0000943903		MML Distributors LLC	.MA	NIA	MassMutual Holding LLC	Ownership	1.000	MMLIC		
.0000							MML Investment Advisers, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Mezzanine Investor, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-3238013				MML Strategic Distributors, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1563535	2881445	0001103653		The MassMutual Trust Company, FSB	.CT	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			04-1590850				MMC Equipment Finance LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			26-0073611				MassMutual Asset Finance LLC	.DE	NIA	MMC Equipment Finance LLC	Ownership	99.600	MMLIC		
.0000			26-0073611				MassMutual Asset Finance LLC	.DE	NIA	C.M. Life Insurance Company	Ownership	0.400	MMLIC		
.0000			27-1379258				MMAF Equipment Finance LLC 2009-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			45-2589019				MMAF Equipment Finance LLC 2011-A	.DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Private Placement Investment Company I, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850		0000067160		MML Private Equity Fund Investor LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Private Equity Intercontinental LLC	.DE	NIA	MML Private Equity Fund Investor LLC	Ownership	100.000	MMLIC		
.0000			45-2738137				Pioneers Gate LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			45-4376777				MSC Holding Company, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			04-3341767				MassMutual Holding MSC, Inc.	.MA	NIA	MSC Holding Company, LLC	Ownership	100.000	MMLIC		
.0000			04-2854319	2392316			MassMutual Holding LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			06-1597528				MassMutual Assignment Company	.NC	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			37-1732913				Fern Street LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			62-0951563	1160004	0001259664		First Mercantile Trust Company	.TN	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			46-2252944				Haven Life Insurance Agency, LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850		0001399869		MassMutual Capital Partners LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			47-1296410				MassMutual Ventures LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Rothesay Holdco US LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			47-1466022				Society of Growups, LLC	.MA	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850		0000701059		MML Investors Services, LLC	.MA	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Insurance Agency, LLC	.MA	NIA	MML Investors Services, LLC	Ownership	100.000	MMLIC		
.0000			41-2011634		0001456663		MMLISI Financial Alliances, LLC	.DE	NIA	MML Investors Services, LLC	Ownership	51.000	MMLIC		
.0000			45-4000072				MM Asset Management Holding LLC	.DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			51-0504477		000009015		Barings LLC	.DE	NIA	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
.0000			80-0875475				Barings Finance LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							BCF Europe Funding Limited	IRL	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000							BCF Senior Funding I LLC	DE	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000							BCF Senior Funding I Designated Activity Company	IRL	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000			04-3238351		0000930012		Barings Securities LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0437588				Barings Guernsey Limited	GGY	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0432153				Barings (UK) Limited	GBR	NIA	Barings Guernsey Limited	Ownership	100.000	MMLIC		
.0000							Barings GPC GP S.a.r.l	LUX	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine GP III Limited	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Holding Partnership GP Limited	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund Limited	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund II Limited	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000			98-1012393				Barings Global Advisors Limited	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							BCGSS 2 GP LLP	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Babson European Direct Lending 1 GP LLP	GBR	NIA	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Barings Advisers (Japan) KK	JPN	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital Holdings LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital LLC	MI	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital Corporation	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-3238351	3456895	0001011148		Barings Real Estate Advisers Inc.	CA	NIA	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000							Barings Real Estate Advisers Japan KK	JPN	NIA	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000							Barings Real Estate UK Holdings Limited	DE	NIA	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000							BREA E AIFM LLP	GBR	NIA	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000			98-0654401				Barings Real Estate Advisers (Continental Europe) Limited	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0654388				Barings Real Estate Advisers Europe LLP	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0654412				Barings Real Estate Advisers Europe Finance LLP	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-1194368				Barings Real Estate Advisers GmbH	DEU	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Baring Holding LLC	DE	NIA	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
.0000			98-0241935	2363071	0000932463		Baring North America LLC	MA	NIA	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Holdings (Bermuda) Limited	BMU	NIA	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC		
.0000			98-0241935				Baring Asset Management Limited	GBR	NIA	MassMutual Holdings (Bermuda) Limited	Ownership	100.000	MMLIC		
.0000			98-0457328		0001568131		Baring International Investment Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457587				Baring International Investment Management Holdings	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457576				Baring Asset Management UK Holdings Limited	GBR	NIA	Baring International Investment Management Holdings	Ownership	100.000	MMLIC		
.0000			98-0465031				Baring Asset Management GmbH	DEU	NIA	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0524271				Baring Asset Management (Asia) Holdings Limited	HKG	NIA	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457465				Baring International Fund Managers (Bermuda) Limited	BMU	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457463				Baring Asset Management (Asia) Limited	HKG	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000							Baring Asset Management Korea Limited	KOR	NIA	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
.0000			98-0236449				Baring Asset Management (Japan) Limited	JPN	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457456				Baring Asset Management (Australia) Pty Limited	AUS	NIA	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0524272				Baring International Fund Managers (Ireland) Limited	IRL	NIA	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
.0000							Baring Asset Management Switzerland Sarl	CHE	NIA	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457707				Baring SICE (Taiwan) Limited	TWN	NIA	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0497550				Baring France SAS	FRA	NIA	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457586				Baring Fund Managers Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457574				Baring Pension Trustees Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457578				Baring Investment Services Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457456				Barings Australia Holding Company Pty Ltd	AUS	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Australia Pty Ltd	AUS	NIA	Baring Australia Holding Company Pty Ltd.	Ownership	100.000	MMLIC		
.0000							Barings Investment Advisors (Hong Kong) Limited	HKG	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			47-2642354				Alchemy Copyrights, LLC.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	15.200	MMLIC		
.0000			47-2642354				Alchemy Copyrights, LLC.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.100	MMLIC		
.0000			47-2642354				Alchemy Copyrights, LLC.	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			81-2244465				Chassis Acquisition Holding LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	30.000	MMLIC		
.0000			81-2244465				Chassis Acquisition Holding LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	40.000	MMLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	18.300	MMLIC		
.0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	15.800	MMLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	66.700	MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			46-3123110				Sweet Tree Holdings 1, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	16.100	MMLIC		
.0000			46-3123110				Sweet Tree Holdings 1, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000							Tamiami Citrus, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	15.700	MMLIC		
.0000							Teaktree Acquisition, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	14.700	MMLIC		
.0000							Teaktree Acquisition, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000							U.S. Buyer Broadcasting, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	12.700	MMLIC		
.0000							U.S. Buyer Broadcasting, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			46-1500495				U.S. WIG Holdings, LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	11.700	MMLIC		
.0000			46-1500495				U.S. WIG Holdings, LP	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	42.600	MMLIC		
.0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000							Solar Acquisition Holding, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	39.200	MMLIC		
.0000							Solar Acquisition Holding, LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC		
.0000							VGS Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	33.300	MMLIC		
.0000							VGS Acquisition Holding, LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC		
.0000			46-3378584				WC Aircraft Holdings US II, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	17.900	MMLIC		

523

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			46-3378584				WC Aircraft Holdings US II, LLC	DE	NIA	Wood Creek Capital Management LLC Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000							Wood Creek Aircraft Holding I, LP	CYM	NIA	Wood Creek Capital Management LLC	Ownership	12.100	MMLIC		
.0000							Wood Creek Aircraft Holding I, LP	CYM	NIA	Wood Creek Capital Management LLC	Management		MMLIC		
.0000			04-1590850		0001501011		Babson Capital Floating Rate Income Fund Management, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Babson Global Loan Feeder Management, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings CLO Investment Partners GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Energy Infrastructure Advisors, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings North American Private Loan Fund Management, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings TERO Management LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0536233				Benton Street Advisors, Inc.	CYM	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				SDCOS Management LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Great Lakes III GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Loan Strategies Management LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Mezzco LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			02-0767001				Mezzco II LLC	DE	NIA	Barings LLC	Ownership	98.400	MMLIC		
.0000			41-2280126				Mezzco III LLC	DE	NIA	Barings LLC	Ownership	99.300	MMLIC		
.0000			80-0920285				Mezzco IV LLC	DE	NIA	Barings LLC	Ownership	99.300	MMLIC		
.0000			90-0666326				Mezzco Australia LLC	DE	NIA	Barings LLC	Ownership	72.000	MMLIC		
.0000							Mezzco Australia II LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000							Somerset Special Opportunities Management LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850					DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			84-1149206	2897101			Oppenheimer Acquisition Corp.	DE	NIA	MassMutual Asset Management Holding LLC	Ownership	97.100	MMLIC		
.0000			13-2527171	2679183	0000820031		OppenheimerFunds, Inc.	CO	NIA	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC		
.0000			13-2953455		0000276541		OppenheimerFunds Distributor, Inc.	NY	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			84-1106295				Oppenheimer Real Asset Management, Inc.	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			13-4160541	3458125	0001179479		OFI Global Institutional, Inc.	NY	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			13-3459790	2914875			OFI Global Trust Company	NY	NIA	OFI Institutional Asset Management, Inc.	Ownership	100.000	MMLIC		
.0000							OFI International, Ltd.	GBR	NIA	OFI Institutional Asset Management, Inc.	Ownership	100.000	MMLIC		
.0000			22-2697140				HarbourView Asset Management Corporation	NY	NIA	OFI Institutional Asset Management, Inc.	Ownership	100.000	MMLIC		
.0000			25-1951632		0000099782		Trinity Investment Management Corporation	PA	NIA	OFI Institutional Asset Management, Inc.	Ownership	100.000	MMLIC		
.0000			84-1128397		0000857468		OFI SteelPath, Inc.	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			84-1066811		0000276398		Shareholder Services, Inc.	CO	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000							VTL Associates, LLC	PA	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000							Index Management Solutions, LLC	PA	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			84-0765063		0001041674		OFI Global Asset Management, Inc.	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			91-2036414		0001179480		OFI Private Investments Inc.	NY	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
.0000			62-1210532				Tremont Group Holdings, LLC	NY	NIA	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC		
.0000			06-1121864		0000764139		Tremont Partners, LLC	CT	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC		
.0000			20-8215352				Tremont GP, LLC	DE	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC		
.0000			90-0874510				Settlement Agent LLC	DE	NIA	Tremont GP	Ownership	100.000	MMLIC		
.0000							Tremont (Bermuda) Limited	BMU	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC		
.0000			04-3313782				MassMutual International LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000							MassMutual Asia Limited	HKG	IA	MassMutual International LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Asia Investors Ltd.	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC		
.0000							MassMutual Guardian Limited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC		
.0000							MassMutual Insurance Consultants Limited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC		
.0000							MassMutual Services Limited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC		
.0000							MassMutual Trustees Limited	HKG	NIA	MassMutual Asia Limited	Ownership	80.000	MMLIC		
.0000			98-0610331				Protective Capital (International) Limited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			98-1033127				MassMutual Internacional (Chile) SpA	.CHL	NIA	MassMutual Internacional LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Life Insurance Company	.JPN	IA	MassMutual International LLC	Ownership	100.000	MMLIC		
.0000			04-2443240				MML Management Corporation	.MA	NIA	Company	Ownership	100.000	MMLIC	Y	
.0000			04-3548444				MassMutual International Holding MSC, Inc.	.MA	NIA	MML Management Corporation	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Mezzanine Investor II, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Mezzanine Investor III, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			27-3576835				MassMutual External Benefits Group LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-8730751				Cornerstone Global REIT Corporation	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			04-1590850				100 w. 3rd Street LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				300 South Tryon Hotel LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				300 South Tryon LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				54 West Capital LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			16-1720387				Alexandria Towers Investors LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund I LP	.GBR	NIA	Company	Ownership/Influence	41.800	MMLIC		
.0000							Almack Mezzanine Fund I LP	.GBR	NIA	C.M. Life Insurance Company	Ownership	4.600	MMLIC		
.0000							Almack Mezzanine Fund I LP	.GBR	NIA	Barings (U.K.) Limited	Management		MMLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	.GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	72.900	MMLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	.GBR	NIA	Barings (U.K.) Limited	Management		MMLIC		
.0000							Almack Mezzanine Fund III LP	.GBR	NIA	Company	Ownership/Influence	34.200	MMLIC		
.0000							Almack Mezzanine Fund III LP	.GBR	NIA	C.M. Life Insurance Company	Ownership	3.800	MMLIC		
.0000							Almack Mezzanine Fund III LP	.GBR	NIA	Barings (U.K.) Limited	Management		MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	.IRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.800	MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	.IRL	NIA	Company	Management		MMLIC		
.0000							Barings Emerging Markets Local Debt Fund	.IRL	NIA	Barings LLC	Ownership/Influence	35.000	MMLIC		
.0000							Barings Emerging Markets Local Debt Fund	.IRL	NIA	Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000							Barings Global Special Situations Credit Fund 1	.IRL	NIA	Barings LLC	Ownership/Influence	98.700	MMLIC		
.0000							Barings Global Special Situations Credit Fund 1	.IRL	NIA	Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	NIA	Barings LLC	Ownership/Influence	23.700	MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	NIA	Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	NIA	Barings LLC	Management		MMLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	78.600	MMLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	.DE	NIA	C.M. Life Insurance Company	Ownership	3.900	MMLIC		

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

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

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Barings LLC Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000							Barings US High Yield Bond Fund	JRL	NIA	Barings LLC	Ownership/Influence	42.200	MMLIC		
.0000							Barings US High Yield Bond Fund	JRL	NIA	Barings LLC	Management		MMLIC		
.0000							Babson CLO Ltd. 2007-I	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2012-I	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2012-II	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000			98-1128827				Babson CLO Ltd. 2013-I	CYM	NIA	Barings LLC	Influence		MMLIC		4
.0000							Babson CLO Ltd. 2013-II	CYM	NIA	Barings LLC	Influence		MMLIC		5
.0000							Babson CLO Ltd. 2014-I	CYM	NIA	Barings LLC	Influence		MMLIC		2
.0000							Babson CLO Ltd. 2014-II	CYM	NIA	Barings LLC	Influence		MMLIC		6
.0000							Babson CLO Ltd. 2014-III	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2015-I	CYM	NIA	Barings LLC	Influence		MMLIC		7
.0000							Babson CLO Ltd. 2015-II	CYM	NIA	Barings LLC	Influence		MMLIC		8
.0000							Babson CLO Ltd. 2016-I	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2016-I	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2014-I BV	NLD	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2014-II BV	NLD	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2015-I BV	NLD	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2016-I BV	NLD	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Global Credit Fund (Lux) SCSp, SIACV-SIF	LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	15.700	MMLIC		
.0000							Babson Global Credit Fund (Lux) SCSp, SIACV-SIF	LUX	NIA	Barings LLC	Management		MMLIC		
.0000			81-0841854				Barings CLO Investment Partners LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	99.900	MMLIC		
.0000			81-0841854				Barings CLO Investment Partners LP	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	90.000	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	GBR	NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	GBR	NIA	Barings LLC	Management		MMLIC		
.0000							Baring Emerging Market Corp Debt Fund	JRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	88.700	MMLIC		
.0000							Baring Emerging Market Corp Debt Fund	JRL	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			11-3789446				Baring Focused EAFE Equity Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	42.500	MMLIC		
.0000			11-3789446				Baring Focused EAFE Equity Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			30-0607379		0001497049		Baring Global Dynamic Asset Allocation Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	18.800	MMLIC		
.0000			30-0607379		0001497049		Baring Global Dynamic Asset Allocation Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			26-4142796				Baring International Small Cap Equity Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	63.400	MMLIC		
.0000			26-4142796				Baring International Small Cap Equity Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership/Influence	99.600	MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	Barings LLC	Management		MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	C.M. Life Insurance Company	Ownership	0.300	MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	28.200	MMLIC		3
.0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership	10.900	MMLIC		
.0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	Barings LLC	Management		MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000							Braemar Energy Ventures I, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	92.600	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			06-1614196				Cambridge Hotel, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Cheyenne Mountain Resort LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Barings European Core Property Fund SCSCp	LUX	NIA	MassMutual Holding LLC	Ownership/Influence	94.000	MMLIC		
.0000							Barings European Core Property Fund SCSCp	LUX	NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC		
.0000							Barings European Core Property Fund SCSCp	LUX	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			27-1701622		0001481752		Cornerstone Core Mortgage Venture I LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	50.000	MMLIC		
.0000			27-1701622		0001481752		Cornerstone Core Mortgage Venture I LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			45-3751572		0001534877		Cornerstone Enhanced Mortgage Fund I LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	15.600	MMLIC		
.0000			45-3751572		0001534877		Cornerstone Enhanced Mortgage Fund I LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	92.300	MMLIC		
.0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	C.M. Life Insurance Company	Ownership	7.600	MMLIC		
.0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			36-4770946		0001590049		Cornerstone High Yield Venture LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	50.000	MMLIC		
.0000			36-4770946		0001590049		Cornerstone High Yield Venture LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000							Cornerstone Hotel Income & Equity Fund II LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	0.000	MMLIC		
.0000			26-1828760		0001423638		Cornerstone Hotel Income & Equity Fund II LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	10.400	MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	14.400	MMLIC		
.0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	25.100	MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	2.800	MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000				3981641			Duchess VI CLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000				4007502			Duchess VII CLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000			20-3887968				E-Wise Land Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	64.000	MMLIC		
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	7.900	MMLIC		
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	MassMutual Holding LLC	Ownership	8.900	MMLIC		
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	35.000	MMLIC		
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership	5.200	MMLIC		
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	MassMutual Holding LLC	Ownership	5.400	MMLIC		
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Barings LLC	Management		MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	35.700	MMLIC		
.0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			20-3887968				Kazwell Realty Partners LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			45-3754085				King Alexander LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-4255307				Marco Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-3000420				MM Debt Participations LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			81-3000420				MM Debt Participations LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000			26-3799762				MML O'Hare Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				Oakley Grove Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				Old Pasco Properties LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			75-2901061				Reston Arboretum LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			30-0713071				Riva Portland LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Rockall QLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000			54-2055778				Rockville Town Center LLC	VA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			74-3182902				SDCOS L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			46-5491311				Seattle 1415 Hotel Owner LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Sedona TRMP Land LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	63.400	MMLIC		
.0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	3.100	MMLIC		
.0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			04-1590850				South Myrtle Monrovia MM LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				South Pasco Properties LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	28.100	MMLIC		
.0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	4.500	MMLIC		
.0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	80.400	MMLIC		
.0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	14.200	MMLIC		
.0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	3.200	MMLIC		
.0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	20.100	MMLIC		
.0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	96.600	MMLIC		
.0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	DE	NIA	Barings LLC	Management		MMLIC		

528

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	21.900	MMLIC		
.0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	38.200	MMLIC		
.0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	0.600	MMLIC		
.0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			04-1590850				West 46th Street Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Barings Emerging Markets Debt Blended Total Return Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Debt Short Duration Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Sovereign Debt Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000			27-3330830		0001521404		Babson Capital Floating Rate Income Fund, L.P.	DE	NIA	MassMutual Holding LLC	Ownership	0.000	MMLIC		
.0000			27-3330830		0001521404		Babson Capital Floating Rate Income Fund, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Babson Capital Loan Strategies Master Fund LP	CYM	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Investment Grade Corporate Plus Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000			47-3758432				Barings Emerging Markets Debt Blended Total Return Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			47-3774453				Barings Emerging Markets Local Currency Debt Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			47-3790192				Barings Global High Yield Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000							Baring Greater China Equity Fund	HKG	NIA	Baring Asset Management Limited	Management		MMLIC		
.0000			47-3734770				Barings Total Return Bond Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			47-3801860				Barings U.S. High Yield Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000							Gateway Mezzanine Partners I Trust	AUS	NIA	Barings LLC	Management		MMLIC		
.0000			71-1018134				Great Lakes II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	11.200	MMLIC		
.0000			71-1018134				Great Lakes II LLC	DE	NIA	C.M. Life Insurance Company	Ownership	1.000	MMLIC		
.0000			56-2505390				Great Lakes LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.400	MMLIC		
.0000			56-2505390				Great Lakes LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.500	MMLIC		
.0000			46-2344300				Intermodal Holdings II LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC		
.0000							Somerset Special Opportunities Master Fund LP	CYM	NIA	Barings LLC	Management		MMLIC		
.0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	40.000	MMLIC		
.0000			20-2548283				12-18 West 55th Street Predevelopment, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	89.200	MMLIC		
.0000			20-2548283				12-18 West 55th Street Predevelopment, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.800	MMLIC		
.0000			46-4803557				2 Harbor Shore Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	70.800	MMLIC		
.0000			46-4803557				2 Harbor Shore Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.000	MMLIC		
.0000			36-4823011				50 Liberty LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	46.100	MMLIC		
.0000			36-4823011				50 Liberty LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.600	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	32.300	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.200	MMLIC		
.0000			45-2779931				AT Mid-Atlantic Office Portfolio LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			45-2779931				AT Mid-Atlantic Office Portfolio LLC	DE	NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
.0000			04-1590850				Barings Global Energy Infrastructure Fund I LP	KY	NIA	Massachusetts Mutual Life Insurance Company	Ownership	80.800	MMLIC		
.0000			81-4382111				Budapester Strasse LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				CHC/RFP VI Core LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund I LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund II LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	84.400	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.600	MMLIC		
.0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			35-2531693				Cornerstone Permanent Mortgage Fund III	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-5001122				CREA 330 Third LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.900	MMLIC		
.0000			46-5001122				CREA 330 Third LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.100	MMLIC		
.0000			46-4367364				CREA FMF Nashville LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			26-2399532				CREA/LYON West Gateway, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	54.000	MMLIC		
.0000			26-2399532				CREA/LYON West Gateway, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC		
.0000			81-0890084				CREA Madison Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-0348173				CREA/PPC Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	93.400	MMLIC		
.0000			20-0348173				CREA/PPC Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.600	MMLIC		
.0000			26-1611591	3956836			Fallon Cornerstone One MPD LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	67.100	MMLIC		
.0000			26-1611591	3956836			Fallon Cornerstone One MPD LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.600	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	58.500	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.800	MMLIC		
.0000			46-3880526				Farrington London Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	94.500	MMLIC		
.0000			46-3880526				Farrington London Holdings LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.500	MMLIC		
.0000							Infinity SCD Ltd	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.200	MMLIC		
.0000			20-4819358				Johnston Groves LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	57.200	MMLIC		
.0000			81-2871333				MM Chatham Office LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	83.400	MMLIC		
.0000			81-2871333				MM Chatham Office LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	16.600	MMLIC		
.0000			46-5347643				MMI/Hines Harrison LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	82.800	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			46-5347643				MMI/Hines Harrison LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.200	MMLIC		
.0000							Salomon Brothers Commercial Mortgage Trust 2001-MM	DE	NIA	Barings Real Estate Advisers LLC	Influence		MMLIC		
.0000			27-2977720				Sawgrass Village Shopping Center LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	84.200	MMLIC		
.0000			27-2977720				Sawgrass Village Shopping Center LLC	DE	NIA	C.M. Life Insurance Company	Ownership	15.800	MMLIC		
.0000							Ten Fan Pier Boulevard LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	91.000	MMLIC		
.0000							Ten Fan Pier Boulevard LLC	DE	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC		
.0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	59.200	MMLIC		
.0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	C.M. Life Insurance Company	Ownership	5.900	MMLIC		
.0000			45-4606547				UK LIW Manager LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	1.000	MMLIC		
.0000			45-4606547				UK LIW Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	92.000	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC		
.0000			20-2970495				Waterford Development Associates	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			47-1993493				Waterloo London Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-3122029				WeHo Domain LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	77.400	MMLIC		
.0000			46-3122029				WeHo Domain LLC	DE	NIA	C.M. Life Insurance Company	Ownership	12.600	MMLIC		
.0000			81-1552222				Willowood Lakeside Master LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	50.000	MMLIC		
.0000			20-5481477				Ygnatio Valley Funding	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			45-3168892			0Q	MassMutual Barings Dynamic Allocation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			51-0529328			0000927972	MassMutual Premier Main Street Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	2.000	MMLIC		
.0000			26-3229251			0000927972	MassMutual Premier Strategic Emerging Markets Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	10.900	MMLIC		
.0000			04-3277550			0000927972	MassMutual Premier Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.200	MMLIC		
.0000			14-1980900			0000916053	MassMutual Select Diversified International Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	31.800	MMLIC		
.0000			01-0821120			0000916053	MassMutual Select Diversified Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	12.700	MMLIC		
.0000			04-3512593			0000916053	MassMutual Select Fundamental Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	6.000	MMLIC		
.0000			04-3513019			0000916053	MassMutual Select Large Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	19.300	MMLIC		
.0000			42-1710935			0000916053	MassMutual Select Mid-Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	74.900	MMLIC		
.0000			02-0769954			0000916053	MassMutual Select Small Capital Value Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	20.300	MMLIC		
.0000			04-3584140			0000916053	MassMutual Select Small Company Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.800	MMLIC		
.0000			46-4257056			0000067160	MML Series International Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	8.900	MMLIC		

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

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
..0000			47-3517233		0001317146		MML Series II Asset Momentum Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	96.200	MMLIC		
..0000			47-3529636		0001317146		MML Series II Dynamic Bond Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	3.600	MMLIC		
..0000			47-3544629		0001317146		MML Series II Equity Rotation Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.600	MMLIC		
..0000			47-3559064		0001317146		MML Series II Special Situations Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.700	MMLIC		
..0000			46-3289207		0000916053		MassMutual RetireSMART 2055 Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	22.100	MMLIC		
..0000			47-5326235		0000916053		MassMutual RetireSMART 2060 Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.900	MMLIC		
..0000			45-1618155		0000916053		MassMutual RetireSMART Conservative Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	9.300	MMLIC		
..0000			45-1618222		0000916053		MassMutual RetireSMART Growth Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	24.300	MMLIC		
..0000			45-1618262		0000916053		MassMutual RetireSMART Moderate Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	11.200	MMLIC		
..0000			45-1618046		0000916053		MassMutual RetireSMART Moderate Growth Fund	..MA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	11.800	MMLIC		
..0000			93-6305075				Oppenheimer Developing Markets Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Ownership	0.900	MMLIC		
..0000							Oppenheimer Developing Markets Equity UCITS	..IRL	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000							Oppenheimer Emerging Markets Innovators UCITS	..IRL	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			81-3492794				Oppenheimer ESG Revenue ETF	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000							Oppenheimer Global Equity UCITS	..IRL	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			81-3480754				Oppenheimer Global ESG Revenue ETF	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			45-3417590		0001530245		Oppenheimer Global High Yield Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Ownership	67.900	MMLIC		
..0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	..DE	..NIA	C.M. Life Insurance Company	Ownership	5.600	MMLIC		
..0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			47-3676235				Oppenheimer Global Multi-Asset Growth Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			47-1714929				Oppenheimer Global Multi-Asset Income Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000							Oppenheimer Global Value Equity UCITS	..IRL	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000							Oppenheimer International Growth & Income Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			81-3136071				Oppenheimer Macquarie Global Infrastructure Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			81-1080638				Oppenheimer SteelPath Panoramic Fund	..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		
..0000			47-3987967					..DE	..NIA	Oppenheimer Funds, Inc.	Management		MMLIC		

Asterisk	Explanation
1	Massachusetts Mutual Life Insurance Company owns 2.03% of the affiliated debt of Jefferies Finance LLC
2	Debt investors own 3.6% and includes only Great Lakes III, L.P.
3	Partnership investors own 99% and include Babson Capital Loan Strategies Fund, L.P.
4	Debt investors own 8.7% and includes only Babson Capital Loan Strategies Fund, L.P.
5	Debt investors own 4.3% and includes only Great Lakes III, L.P.
6	Debt investors own 5.8% and includes only Great Lakes III, L.P.
7	Debt investors own 2.0% and includes only Great Lakes III, L.P.
8	Debt investors own 4.3% and includes only Great Lakes III, L.P.

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

SCHEDULE Y

PART 2 - SUMMARY OF INSURER'S TRANSACTIONS WITH ANY AFFILIATES

1	2	3	4	5	6	7	8	9	10	11	12	13
NAIC Company Code	ID Number	Names of Insurers and Parent, Subsidiaries or Affiliates	Shareholder Dividends	Capital Contributions	Purchases, Sales or Exchanges of Loans, Securities, Real Estate, Mortgage Loans or Other Investments	Income/ (Disbursements) Incurred in Connection with Guarantees or Undertakings for the Benefit of any Affiliate(s)	Management Agreements and Service Contracts	Income/ (Disbursements) Incurred Under Reinsurance Agreements	*	Any Other Material Activity Not in the Ordinary Course of the Insurer's Business	Totals	Reinsurance Recoverable/ (Payable) on Losses and/or Reserve Credit Taken/(Liability)
65935	04-1590850	Massachusetts Mutual Life Insurance Company (MMLIC)	432,393,551	(1,043,240,811)	(504,546,455)						(1,115,393,715)	(45,461,043)
93432	06-1041383	C.M. Life Insurance Company	134,636	14,276,453	(37,192,545)						(22,781,456)	39,165,290
70416	43-0581430	MML Bay State Life Insurance Company										6,295,753
	26-0073611	MassMutual Asset Finance LLC			541,739,000						541,739,000	
	04-2854319	MassMutual Holding LLC	(429,741,302)	889,189,662							459,448,360	
	81-0890084	CREA Madison Member LLC		136,493,339							136,493,339	
	04-1590850	Barings Global Energy Infrastructure Fund I LP		101,000,000							101,000,000	
	04-1590850	Berkshire Way LLC		100,000,000							100,000,000	
		Remington L&W Holdings LLC		64,666,667							64,666,667	
	04-1590850	Budapester Strasse LLC		56,596,310							56,596,310	
	46-5001122	CREA 330 Third LLC		35,220,859							35,220,859	
	81-1552222	Willowood Lakeside Master LLC		28,183,405							28,183,405	
	98-1332447	Barings Real Estate European Value Add I SCSp		23,392,680							23,392,680	
	36-4823011	50 Liberty LLC		21,879,469							21,879,469	
	95-4207717	Cornerstone California Mortgage Fund I LLC		21,213,331							21,213,331	
		MML Special Situations Investor LLC		21,044,887							21,044,887	
	45-2632610	Cornerstone Permanent Mortgage Fund		20,218,081							20,218,081	
	46-5437441	Barings/LAZ Parking Fund LP		19,913,541							19,913,541	
	13-3175978	MSI Financial Services, Inc.		15,000,000							15,000,000	
	46-4367364	CREA FMF Nashville LLC		14,220,000							14,220,000	
		Babson CLO Investment Partners GP, LLC		14,039,855							14,039,855	
	46-5347643	MMI/Hines Harrison LLC		10,668,585							10,668,585	
	45-4606547	UK LIW Member LLC		10,399,197							10,399,197	
		CRA Aircraft Holdings LLC		9,600,000							9,600,000	
	04-1590850	MML Mezzanine Investor III, LLC		9,363,524							9,363,524	
	81-2871333	MM Chatham Office LLC		8,998,122							8,998,122	
	80-0948028	One Harbor Shore LLC		8,107,279							8,107,279	
	47-1993493	Waterloo London Holdings LLC		6,616,970							6,616,970	
		Babson Global Credit Fund (Lux) SCSp, SIACV-SIF		5,285,559							5,285,559	
	27-0105644	Jefferies Finance LLC		5,118,924							5,118,924	
		Barings European Core Property Fund SCSp		4,555,878							4,555,878	
	46-3123110	Sweet Tree Holdings 1, LLC		3,831,831							3,831,831	
	27-2977720	Sawgrass Village Shopping Center LLC		3,673,031							3,673,031	
	81-2244465	Chassis Acquisition Holding LLC		3,000,000							3,000,000	
	46-4077059	MM Woodfield Martingale LLC		2,426,785							2,426,785	
	45-5257904	21 West 86 LLC		2,250,000							2,250,000	
	46-5460309	Red Lake Ventures, LLC		1,889,394							1,889,394	
	20-2548283	12-18 West 55th Street Predevelopment, LLC		1,411,584							1,411,584	

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

SCHEDULE Y

PART 2 - SUMMARY OF INSURER'S TRANSACTIONS WITH ANY AFFILIATES

1	2	3	4	5	6	7	8	9	10	11	12	13
NAIC Company Code	ID Number	Names of Insurers and Parent, Subsidiaries or Affiliates	Shareholder Dividends	Capital Contributions	Purchases, Sales or Exchanges of Loans, Securities, Real Estate, Mortgage Loans or Other Investments	Income/ (Disbursements) Incurred in Connection with Guarantees or Undertakings for the Benefit of any Affiliate(s)	Management Agreements and Service Contracts	Income/ (Disbursements) Incurred Under Reinsurance Agreements	*	Any Other Material Activity Not in the Ordinary Course of the Insurer's Business	Totals	Reinsurance Recoverable/ (Payable) on Losses and/or Reserve Credit Taken/(Liability)
		CML Special Situations Investor LLC		1,343,291							1,343,291	
06-1041383		CML Mezzanine Investor III, LLC		1,040,624							1,040,624	
46-5432619		Cornerstone Real Estate Fund X LP		939,485							939,485	
		Solar Acquisition Holding, LLC		800,416							800,416	
		Ten Fan Pier Boulevard LLC		714,139							714,139	
		Braemar Energy Ventures I, L.P.		525,298							525,298	
46-3122029		WeHo Domain LLC		335,250							335,250	
56-2630592		Cornerstone Fort Pierce Development LLC		241,898							241,898	
47-2642354		Alchemy Copyrights, LLC		239,840							239,840	
45-4606547		UK LIW Manager LLC		105,042							105,042	
47-3055009		Milestone Acquisition Holding, LLC		32,075							32,075	
95-4207717		Cornerstone California Mortgage Fund II LLC		19,038							19,038	
		Infinity SCD Ltd		14,836							14,836	
98-0536233		Benton Street Partners I, L.P.		12,698							12,698	
26-4441097		WP-SC, LLC		840							840	
81-3000420		MM Debt Participations LLC		430							430	
04-3584140		MassMutual Select Small Company Value Fund	(1,325)								(1,325)	
45-1618222		MassMutual RetireSMART Growth Fund	(1,357)								(1,357)	
26-3229251		MassMutual Premier Strategic Emerging Markets Fund	(1,520)								(1,520)	
45-1618046		MassMutual RetireSMART Moderate Growth Fund	(1,758)								(1,758)	
45-1618262		MassMutual RetireSMART Moderate Fund	(1,896)								(1,896)	
46-4257056		MML Series II International Equity Fund	(1,944)								(1,944)	
45-1618155		MassMutual RetireSMART Conservative Fund	(2,095)								(2,095)	
47-3529636		MML Series II Dynamic Bond Fund	(2,757)								(2,757)	
42-1710935		MassMutual Select Mid-Cap Value Fund	(2,914)								(2,914)	
51-0529328		MassMutual Premier Main Street Fund	(3,371)								(3,371)	
04-3277550		MassMutual Premier Value Fund	(4,654)								(4,654)	
14-1980900		MassMutual Select Diversified International Fund	(4,746)								(4,746)	
47-3559064		MML Series II Special Situations Fund	(4,967)								(4,967)	
02-0769954		MassMutual Select Small Capital Value Equity Fund	(5,944)								(5,944)	
04-3513019		MassMutual Select Large Cap Value Fund	(6,816)								(6,816)	
01-0821120		MassMutual Select Diversified Value Fund	(6,877)								(6,877)	
04-3512593		MassMutual Select Fundamental Growth Fund	(14,535)								(14,535)	
47-3517233		MML Series II Asset Momentum Fund	(15,765)								(15,765)	
		Babson Capital Emerging Markets Local Debt Fund	(21,472)								(21,472)	
46-3289207		MassMutual RetireSMART 2055 Fund	(24,843)								(24,843)	

SCHEDULE Y

PART 2 - SUMMARY OF INSURER'S TRANSACTIONS WITH ANY AFFILIATES

1	2	3	4	5	6	7	8	9	10	11	12	13
NAIC Company Code	ID Number	Names of Insurers and Parent, Subsidiaries or Affiliates	Shareholder Dividends	Capital Contributions	Purchases, Sales or Exchanges of Loans, Securities, Real Estate, Mortgage Loans or Other Investments	Income/ (Disbursements) Incurred in Connection with Guarantees or Undertakings for the Benefit of any Affiliate(s)	Management Agreements and Service Contracts	Income/ (Disbursements) Incurred Under Reinsurance Agreements	*	Any Other Material Activity Not in the Ordinary Course of the Insurer's Business	Totals	Reinsurance Recoverable/ (Payable) on Losses and/or Reserve Credit Taken/(Liability)
	30-0607379	Baring Global Dynamic Asset Allocation Fund		(32,479)							(32,479)	
		Babson Capital US High Yield Bond Fund	(49,196)								(49,196)	
	61-1750537	Cornerstone Permanent Mortgage Fund II		(60,750)							(60,750)	
	26-4142796	Baring International Small Cap Equity Fund		(65,788)							(65,788)	
	04-1590850	CHC/RFP VI Core LLC		(67,955)							(67,955)	
	47-3544629	MML Series II Equity Rotation Fund	(143,970)								(143,970)	
		Babson Capital Emerging Markets Corporate Bond Fund	(213,251)								(213,251)	
	11-3789446	Baring Focused EAFE Equity Fund		(226,213)							(226,213)	
	35-2531693	Cornerstone Permanent Mortgage Fund III		(295,600)							(295,600)	
	47-5326235	MassMutual RetireSMART 2060 Fund	(549,481)								(549,481)	
	04-3722906	Tower Square Capital Partners, L.P.		(617,700)							(617,700)	
	20-3347091	Fan Pier Development LLC		(727,788)							(727,788)	
	46-2344300	Intermodal Holdings II LLC		(819,000)							(819,000)	
	20-0348173	CREA/PPC Venture LLC		(996,300)							(996,300)	
	46-3378584	WC Aircraft Holdings US II, LLC		(1,010,220)							(1,010,220)	
	26-1828760	Cornerstone Hotel Income & Equity Fund II LP		(1,027,376)							(1,027,376)	
	06-1041383	CML Mezzanine Investor L, LLC		(1,157,713)							(1,157,713)	
	27-1435692	Country Club Office Plaza LLC		(1,303,140)							(1,303,140)	
	20-4819358	Johnston Groves LLC		(1,323,713)							(1,323,713)	
	56-2505390	Great Lakes LLC		(1,615,899)							(1,615,899)	
	20-2970495	US Pharmaceutical Holdings II, LLC		(1,652,826)							(1,652,826)	
	46-1604428	Oppenheimer Global Real Estate Fund	(1,699,431)								(1,699,431)	
	20-4570515	Babson Mezzanine Realty Investors I		(1,750,481)							(1,750,481)	
	04-1590850	Wood Creek Venture Fund LLC		(1,804,981)							(1,804,981)	
	26-2399532	CREA/LYON West Gateway, LLC		(1,950,218)							(1,950,218)	
	47-3971963	Babson Investment Grade CLO Debt Fund LP		(2,206,811)							(2,206,811)	
	47-5322979	Timberland Forest Holding LLC		(2,239,048)							(2,239,048)	
	90-0991195	Gateway Mezzanine Partners II LP		(2,252,358)							(2,252,358)	
	06-1041383	CML Mezzanine Investor, LLC		(2,346,570)							(2,346,570)	
	30-0336246	Tower Square Capital Partners II, L.P.		(2,915,365)							(2,915,365)	
	46-3880526	Farrington London Holdings LLC		(2,918,910)							(2,918,910)	
	55-0886109	Babson Capital High Yield LLC		(2,927,937)							(2,927,937)	
	71-1018134	Great Lakes II LLC		(3,253,174)							(3,253,174)	
	20-5481477	Ygnatio Valley Funding		(5,438,558)							(5,438,558)	
	45-5401109	Washington Gateway Apartments Venture LLC		(6,971,539)							(6,971,539)	
	45-3751572	Cornerstone Enhanced Mortgage Fund I LP		(9,994,930)							(9,994,930)	
	37-1708623	Great Lakes III, L.P.		(10,009,721)							(10,009,721)	
	04-1590850	MML Mezzanine Investor L, LLC		(10,419,414)							(10,419,414)	
	80-0691253	Gateway Mezzanine Partners I, L.P.		(10,663,727)							(10,663,727)	

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

SCHEDULE Y

PART 2 - SUMMARY OF INSURER'S TRANSACTIONS WITH ANY AFFILIATES

1	2	3	4	5	6	7	8	9	10	11	12	13
NAIC Company Code	ID Number	Names of Insurers and Parent, Subsidiaries or Affiliates	Shareholder Dividends	Capital Contributions	Purchases, Sales or Exchanges of Loans, Securities, Real Estate, Mortgage Loans or Other Investments	Income/ (Disbursements) Incurred in Connection with Guarantees or Undertakings for the Benefit of any Affiliate(s)	Management Agreements and Service Contracts	Income/ (Disbursements) Incurred Under Reinsurance Agreements	*	Any Other Material Activity Not in the Ordinary Course of the Insurer's Business	Totals	Reinsurance Recoverable/ (Payable) on Losses and/or Reserve Credit Taken/(Liability)
	32-0160190	Tower Square Capital Partners II-A, L.P.		(11,247,512)							(11,247,512)	
	36-4770946	Cornerstone High Yield Venture LP		(12,260,185)							(12,260,185)	
	27-0547156	Cornerstone Real Estate Fund VIII LP		(17,754,736)							(17,754,736)	
	35-2484550	Twenty Two Liberty LLC		(20,800,000)							(20,800,000)	
	04-1590850	MML Mezzanine Investor, LLC		(21,119,127)							(21,119,127)	
	20-4981369	Wood Creek Multi Asset Fund, L.P.		(22,162,555)							(22,162,555)	
	04-1590850	MML Private Equity Fund Investor LLC		(33,346,699)							(33,346,699)	
	04-1590850	MML Mezzanine Investor II, LLC		(42,145,420)							(42,145,420)	
		MML Investment Advisers, LLC		(55,525,578)							(55,525,578)	
	41-2280129	Tower Square Capital Partners IIIA, L.P.		(59,156,155)							(59,156,155)	
	26-1611591	Fallon Cornerstone One MPD LLC		(59,200,831)							(59,200,831)	
	37-1732913	Fern Street LLC		(64,256,845)							(64,256,845)	
	20-8856877	Somerset Special Opportunities Fund L.P.		(64,716,944)							(64,716,944)	
	45-2779931	AT Mid-Atlantic Office Portfolio LLC		(80,112,802)							(80,112,802)	
	9999999	Control Totals							XXX			

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

The following supplemental reports are required to be filed as part of your statement filing unless specifically waived by the domiciliary state. However, in the event that your domiciliary state waives the filing requirement, your response of WAIVED to the specific interrogatory will be accepted in lieu of filing a "NONE" report and a bar code will be printed below. If the supplement is required of your company but is not being filed for whatever reason enter SEE EXPLANATION and provide an explanation following the interrogatory questions.

	<u>Responses</u>
MARCH FILING	
1. Will the Supplemental Compensation Exhibit be filed with the state of domicile by March 1?	YES
2. Will the confidential Risk-based Capital Report be filed with the NAIC by March 1?	YES
3. Will the confidential Risk-based Capital Report be filed with the state of domicile, if required, by March 1?	YES
4. Will an actuarial opinion be filed by March 1?	YES
APRIL FILING	
5. Will Management's Discussion and Analysis be filed by April 1?	YES
6. Will the Life, Health & Annuity Guaranty Association Model Act Assessment Base Reconciliation Exhibit be filed with the state of domicile and the NAIC by April 1?	YES
7. Will the Adjustment Form (if required) be filed with the state of domicile and the NAIC by April 1?	YES
8. Will the Supplemental Investment Risks Interrogatories be filed by April 1?	YES
JUNE FILING	
9. Will an audited financial report be filed by June 1?	YES
10. Will Accountant's Letter of Qualifications be filed with the state of domicile and electronically with the NAIC by June 1?	YES
AUGUST FILING	
11. Will the regulator-only (non-public) Communication of Internal Control Related Matters Noted in Audit be filed with the state of domicile and electronically with the NAIC (as a regulator-only non-public document) by August 1?	YES

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

MARCH FILING	
12. Will Schedule SIS (Stockholder Information Supplement) be filed with the state of domicile by March 1?	NO
13. Will the Medicare Supplement Insurance Experience Exhibit be filed with the state of domicile and the NAIC by March 1?	NO
14. Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC by March 1?	NO
15. Will the actuarial opinion on participating and non-participating policies as required in Interrogatories 1 and 2 to Exhibit 5 be filed with the state of domicile and electronically with the NAIC by March 1?	NO
16. Will the actuarial opinion on non-guaranteed elements as required in interrogatory #3 to Exhibit 5 be filed with the state of domicile and electronically with the NAIC by March 1?	YES
17. Will the actuarial opinion on X-Factors be filed with the state of domicile and electronically with the NAIC by March 1?	NO
18. Will the actuarial opinion on Separate Accounts Funding Guaranteed Minimum Benefit be filed with the state of domicile and electronically with the NAIC by March 1?	NO
19. Will the actuarial opinion on Synthetic Guaranteed Investment Contracts be filed with the state of domicile and electronically with the NAIC by March 1?	NO
20. Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC by March 1?	NO
21. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC by March 1?	NO
22. Will the Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI be filed with the state of domicile and electronically with the NAIC by March 1?	NO
23. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average Market Value) be filed with the state of domicile and electronically with the NAIC by March 1?	NO
24. Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) be filed with the state of domicile and electronically with the NAIC by March 1?	NO
25. Will the C-3 RBC Certifications required under C-3 Phase I be filed with the state of domicile and electronically with the NAIC by March 1?	YES
26. Will the C-3 RBC Certifications required under C-3 Phase II be filed with the state of domicile and electronically with the NAIC by March 1?	YES

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

- 27. Will the Actuarial Certifications Related to Annuity Nonforfeiture Ongoing Compliance for Equity Indexed Annuities be filed with the state of domicile and electronically with the NAIC by March 1? NO
- 28. Will the actuarial opinion required by the Modified Guaranteed Annuity Model Regulation be filed with the state of domicile and electronically with the NAIC by March 1? NO
- 29. Will the Actuarial Certifications Related to Hedging required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? NO
- 30. Will the Financial Officer Certification Related to Clearly Defined Hedging Strategy required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? NO
- 31. Will the Management Certification That the Valuation Reflects Management's Intent required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? YES
- 32. Will the Actuarial Certification Related to the Reserves required by Actuarial Guideline XLIII be filed with the state of domicile and electronically with the NAIC by March 1? YES
- 33. Will the Actuarial Certification regarding the use of 2001 Preferred Class Tables required by the Model Regulation Permitting the Recognition of Preferred Mortality Tables for Use in Determining Minimum Reserve Liabilities be filed with the state of domicile and electronically with the NAIC by March 1? NO
- 34. Will the Worker's Compensation Carve-Out Supplement be filed by March 1? NO
- 35. Will Supplemental Schedule O be filed with the state of domicile and the NAIC by March 1? NO
- 36. Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC by March 1? NO
- 37. Will an approval from the reporting entity's state of domicile for relief related to the five-year rotation requirement for lead audit partner be filed electronically with the NAIC by March 1? NO
- 38. Will an approval from the reporting entity's state of domicile for relief related to the one-year cooling off period for independent CPA be filed electronically with the NAIC by March 1? NO
- 39. Will an approval from the reporting entity's state of domicile for relief related to the Requirements for Audit Committees be filed electronically with the NAIC by March 1? NO
- 40. Will the confidential Regulatory Asset Adequacy Issues Summary (RAAIS) required by Actuarial Opinion and Memorandum Regulation (Model 822), Section 7A(5) be filed with the state of domicile by March 15? YES

APRIL FILING

- 41. Will the Long-Term Care Experience Reporting Forms be filed with the state of domicile and the NAIC by April 1? NO
- 42. Will the Interest-Sensitive Life Insurance Products Report Forms be filed with the state of domicile and the NAIC by April 1? YES
- 43. Will the Credit Insurance Experience Exhibit be filed with the state of domicile and the NAIC by April 1? NO
- 44. Will the Accident and Health Policy Experience Exhibit be filed by April 1? NO
- 45. Will the Analysis of Annuity Operations by Lines of Business be filed with the state of domicile and the NAIC by April 1? YES
- 46. Will the Analysis of Increase in Annuity Reserves During the Year be filed with the state of domicile and the NAIC by April 1? YES
- 47. Will the Supplemental Health Care Exhibit (Parts 1, 2 and 3) be filed with the state of domicile and the NAIC by April 1? NO
- 48. Will the regulator only (non-public) Supplemental Health Care Exhibit's Expense Allocation Report be filed with the state of domicile and the NAIC by April 1? NO
- 49. Will the confidential Actuarial Memorandum required by Actuarial Guideline XXXVIII 8D be filed with the state of domicile by April 30? NO
- 50. Will the Supplemental XXX/AXXX Reinsurance Exhibit be filed with the state of domicile and the NAIC by April 1? NO

AUGUST FILING

- 51. Will Management's Report of Internal Control Over Financial Reporting be filed with the state of domicile by August 1? SEE EXPLANATION

- Explanations:
- 12. Not required.
 - 13. This line of business is not written by the company.
 - 14. Not required.
 - 15. Not required.
 - 17. Not required.
 - 18. Not required.
 - 19. Not required.
 - 20. Not required.
 - 21. Not required.
 - 22. Not required.
 - 23. Not required.
 - 24. Not required.
 - 27. This line of business is not written by the company.
 - 28. This line of business is not written by the company.
 - 29. Not required.
 - 30. Not required.
 - 33. Not required.
 - 34. This line of business is not written by the company.
 - 35. This line of business is not written by the company.
 - 36. This line of business is not written by the company.
 - 37. Not required.
 - 38. Not required.
 - 39. Not required.
 - 41. This line of business is not written by the company.
 - 43. This line of business is not written by the company.
 - 44. This line of business is not written by the company.
 - 47. This line of business is not written by the company.
 - 48. This line of business is not written by the company.
 - 49. Not required.
 - 50. Not required.
 - 51. Does not meet the threshold of \$500 million premium test.

- 12. SIS Stockholder Information Supplement [Document Identifier 420]



- 13. Medicare Supplement Insurance Experience Exhibit [Document Identifier 360]



- 14. Trusteed Surplus Statement [Document Identifier 490]



- 15. Participating Opinion for Exhibit 5 [Document Identifier 371]



- 17. Actuarial Opinion on X-Factors [Document Identifier 442]


























- 18. Actuarial Opinion on Separate Accounts Funding Guaranteed Minimum Benefit [Document Identifier 443]



- 19. Actuarial Opinion on Synthetic Guaranteed Investment Contracts [Document Identifier 444]



SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

20. Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445]	 7 0 4 1 6 2 0 1 6 4 4 5 0 0 0 0 0
21. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 446]	 7 0 4 1 6 2 0 1 6 4 4 6 0 0 0 0 0
22. Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447]	 7 0 4 1 6 2 0 1 6 4 4 7 0 0 0 0 0
23. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448]	 7 0 4 1 6 2 0 1 6 4 4 8 0 0 0 0 0
24. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449]	 7 0 4 1 6 2 0 1 6 4 4 9 0 0 0 0 0
27. Actuarial Certifications Related to Annuity Nonforfeiture Ongoing Compliance for Equity Indexed Annuities [Document Identifier 452]	 7 0 4 1 6 2 0 1 6 4 5 2 0 0 0 0 0
28. Modified Guaranteed Annuity Model Regulation [Document Identifier 453]	 7 0 4 1 6 2 0 1 6 4 5 3 0 0 0 0 0
29. Actuarial Certifications Related to Hedging required by Actuarial Guideline XLIII [Document Identifier 436]	 7 0 4 1 6 2 0 1 6 4 3 6 0 0 0 0 0
30. Financial Officer Certification Related to Clearly Defined Hedging Strategy required by Actuarial Guideline XLIII [Document Identifier 437]	 7 0 4 1 6 2 0 1 6 4 3 7 0 0 0 0 0
33. Actuarial Certification regarding the use of 2001 Preferred Class Tables required by the Model Regulation Permitting the Recognition of Preferred Mortality Tables for Use in Determining Minimum Reserve Liabilities [Document Identifier 454]	 7 0 4 1 6 2 0 1 6 4 5 4 0 0 0 0 0
34. Workers' Compensation Carve-Out Supplement [Document Identifier 495]	 7 0 4 1 6 2 0 1 6 4 9 5 0 0 0 0 0
35. Supplemental Schedule O [Document Identifier 465]	 7 0 4 1 6 2 0 1 6 4 6 5 0 0 0 0 0
36. Medicare Part D Coverage Supplement [Document Identifier 365]	 7 0 4 1 6 2 0 1 6 3 6 5 0 0 0 0 0
37. Relief from the five-year rotation requirement for lead audit partner [Document Identifier 224]	 7 0 4 1 6 2 0 1 6 2 2 4 0 0 0 0 0
38. Relief from the one-year cooling off period for independent CPA [Document Identifier 225]	 7 0 4 1 6 2 0 1 6 2 2 5 0 0 0 0 0
39. Relief from the Requirements for Audit Committees [Document Identifier 226]	 7 0 4 1 6 2 0 1 6 2 2 6 0 0 0 0 0
41. Long-Term Care Experience Reporting Forms [Document Identifier 306]	 7 0 4 1 6 2 0 1 6 3 0 6 0 0 0 0 0
43. Credit Insurance Experience Exhibit [Document Identifier 230]	 7 0 4 1 6 2 0 1 6 2 3 0 0 0 0 0 0
44. Accident and Health Policy Experience Exhibit [Document Identifier 210]	 7 0 4 1 6 2 0 1 6 2 1 0 0 0 0 0 0
47. Supplemental Health Care Exhibit (Parts 1, 2 and 3) [Document Identifier 216]	 7 0 4 1 6 2 0 1 6 2 1 6 0 0 0 0 0
48. Supplemental Health Care Exhibit's Expense Allocation Report [Document Identifier 217]	 7 0 4 1 6 2 0 1 6 2 1 7 0 0 0 0 0
49. Actuarial Memorandum Required by Actuarial Guideline XXXVIII 8D [Document Identifier 435]	 7 0 4 1 6 2 0 1 6 4 3 5 0 0 0 0 0
50. Supplemental XXX/AXXX Reinsurance Exhibit [Document Identifier 345]	 7 0 4 1 6 2 0 1 6 3 4 5 0 0 0 0 0

OVERFLOW PAGE FOR WRITE-INS

NONE

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

SUMMARY INVESTMENT SCHEDULE

Investment Categories	Gross Investment Holdings		Admitted Assets as Reported in the Annual Statement			
	1 Amount	2 Percentage	3 Amount	4 Securities Lending Reinvested Collateral Amount	5 Total (Col. 3 + 4) Amount	6 Percentage
1. Bonds:						
1.1 U.S. treasury securities	39,351,170	8.336	39,351,170		39,351,170	8.336
1.2 U.S. government agency obligations (excluding mortgage-backed securities):						
1.21 Issued by U.S. government agencies		0.000				0.000
1.22 Issued by U.S. government sponsored agencies		0.000				0.000
1.3 Non-U.S. government (including Canada, excluding mortgaged-backed securities)		0.000				0.000
1.4 Securities issued by states, territories, and possessions and political subdivisions in the U.S. :						
1.41 States, territories and possessions general obligations		0.000				0.000
1.42 Political subdivisions of states, territories and possessions and political subdivisions general obligations		0.000				0.000
1.43 Revenue and assessment obligations		0.000				0.000
1.44 Industrial development and similar obligations		0.000				0.000
1.5 Mortgage-backed securities (includes residential and commercial MBS):						
1.51 Pass-through securities:						
1.511 Issued or guaranteed by GNMA	6,653	0.001	6,653		6,653	0.001
1.512 Issued or guaranteed by FNMA and FHLMC		0.000				0.000
1.513 All other	110,329,587	23.372	110,329,587		110,329,587	23.372
1.52 CMOs and REMICs:						
1.521 Issued or guaranteed by GNMA, FNMA, FHLMC or VA	66,143	0.014	66,143		66,143	0.014
1.522 Issued by non-U.S. Government issuers and collateralized by mortgage-backed securities issued or guaranteed by agencies shown in Line 1.521		0.000				0.000
1.523 All other	1,462,670	0.310	1,462,670		1,462,670	0.310
2. Other debt and other fixed income securities (excluding short-term):						
2.1 Unaffiliated domestic securities (includes credit tenant loans and hybrid securities)	96,327,306	20.406	96,327,306		96,327,306	20.406
2.2 Unaffiliated non-U.S. securities (including Canada)	56,269,146	11.920	56,269,146		56,269,146	11.920
2.3 Affiliated securities	6,404,131	1.357	6,404,131		6,404,131	1.357
3. Equity interests:						
3.1 Investments in mutual funds		0.000				0.000
3.2 Preferred stocks:						
3.21 Affiliated		0.000				0.000
3.22 Unaffiliated		0.000				0.000
3.3 Publicly traded equity securities (excluding preferred stocks):						
3.31 Affiliated		0.000				0.000
3.32 Unaffiliated		0.000				0.000
3.4 Other equity securities:						
3.41 Affiliated		0.000				0.000
3.42 Unaffiliated		0.000				0.000
3.5 Other equity interests including tangible personal property under lease:						
3.51 Affiliated		0.000				0.000
3.52 Unaffiliated		0.000				0.000
4. Mortgage loans:						
4.1 Construction and land development		0.000				0.000
4.2 Agricultural		0.000				0.000
4.3 Single family residential properties	4,007,088	0.849	4,007,088		4,007,088	0.849
4.4 Multifamily residential properties		0.000				0.000
4.5 Commercial loans		0.000				0.000
4.6 Mezzanine real estate loans		0.000				0.000
5. Real estate investments:						
5.1 Property occupied by company		0.000				0.000
5.2 Property held for production of income (including \$ of property acquired in satisfaction of debt)		0.000				0.000
5.3 Property held for sale (including \$ property acquired in satisfaction of debt)		0.000				0.000
6. Contract loans	95,147,773	20.156	95,147,773		95,147,773	20.156
7. Derivatives		0.000				0.000
8. Receivables for securities		0.000				0.000
9. Securities Lending (Line 10, Asset Page reinvested collateral)		0.000		XXX	XXX	XXX
10. Cash, cash equivalents and short-term investments	62,691,625	13.280	62,691,625		62,691,625	13.280
11. Other invested assets		0.000				0.000
12. Total invested assets	472,063,292	100.000	472,063,292		472,063,292	100.000

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

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	5,847,458
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)	2,992
3.	Capitalized deferred interest and other:	
3.1	Totals, Part 1, Column 12	
3.2	Totals, Part 3, Column 11	
4.	Accrual of discount	1,411
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	1,832,747
8.	Deduct amortization of premium and mortgage interest points and commitment fees	12,026
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)	4,007,088
12.	Total valuation allowance	
13.	Subtotal (Line 11 plus 12)	4,007,088
14.	Deduct total nonadmitted amounts	
15.	Statement value of mortgages owned at end of current period (Line 13 minus Line 14)	4,007,088

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

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	222,828,946
2.	Cost of bonds and stocks acquired, Part 3, Column 7	136,043,421
3.	Accrual of discount	498,623
4.	Unrealized valuation increase (decrease):	
4.1.	Part 1, Column 12	(29,573)
4.2.	Part 2, Section 1, Column 15	
4.3.	Part 2, Section 2, Column 13	
4.4.	Part 4, Column 11	(29,573)
5.	Total gain (loss) on disposals, Part 4, Column 19	128,413
6.	Deduction consideration for bonds and stocks disposed of, Part 4, Column 7	48,766,601
7.	Deduct amortization of premium	477,316
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	9,044
9.2.	Part 2, Section 1, Column 17	
9.3.	Part 2, Section 2, Column 14	
9.4.	Part 4, Column 13	63
10.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)	310,216,806
11.	Deduct total nonadmitted amounts	
12.	Statement value at end of current period (Line 10 minus Line 11)	310,216,806

ANNUAL STATEMENT FOR THE YEAR 2016 OF THE MML Bay State 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	39,357,823	39,216,346	39,367,031	39,307,006
	2. Canada				
	3. Other Countries				
	4. Totals	39,357,823	39,216,346	39,367,031	39,307,006
U.S. States, Territories and Possessions (Direct and guaranteed)	5. Totals				
U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed)	6. Totals				
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	66,142	72,640	68,175	64,513
Industrial and Miscellaneous, SVO Identified Funds and Hybrid Securities (unaffiliated)	8. United States	208,119,563	209,678,281	208,945,330	208,819,667
	9. Canada	5,899,031	5,986,532	5,952,403	5,895,000
	10. Other Countries	50,370,116	50,592,579	50,102,309	50,161,357
	11. Totals	264,388,710	266,257,392	265,000,042	264,876,024
Parent, Subsidiaries and Affiliates	12. Totals	6,404,131	6,442,874	6,424,464	6,511,306
	13. Total Bonds	310,216,806	311,989,252	310,859,712	310,758,849
PREFERRED STOCKS					
Industrial and Miscellaneous (unaffiliated)	14. United States				
	15. Canada				
	16. Other Countries				
	17. Totals				
Parent, Subsidiaries and Affiliates	18. Totals				
	19. Total Preferred Stocks				
COMMON STOCKS					
Industrial and Miscellaneous (unaffiliated)	20. United States				
	21. Canada				
	22. Other Countries				
	23. Totals				
Parent, Subsidiaries and Affiliates	24. Totals				
	25. Total Common Stocks				
	26. Total Stocks				
	27. Total Bonds and Stocks	310,216,806	311,989,252	310,859,712	

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

SCHEDULE D - PART 1A - SECTION 1

Quality and Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Types of Issues and NAIC Designations

NAIC Designation	1 1 Year or Less	2 Over 1 Year Through 5 Years	3 Over 5 Years Through 10 Years	4 Over 10 Years Through 20 Years	5 Over 20 Years	6 No Maturity Date	7 Total Current Year	8 Col. 7 as a % of Line 10.7	9 Total from Col. 6 Prior Year	10 % From Col. 7 Prior Year	11 Total Publicly Traded	12 Total Privately Placed (a)
1. U.S. Governments												
1.1 NAIC 1	860	39,354,310	2,653			XXX	39,357,823	10.5	54,269,462	19.2	39,357,823	
1.2 NAIC 2						XXX						
1.3 NAIC 3						XXX						
1.4 NAIC 4						XXX						
1.5 NAIC 5						XXX						
1.6 NAIC 6						XXX						
1.7 Totals	860	39,354,310	2,653			XXX	39,357,823	10.5	54,269,462	19.2	39,357,823	
2. All Other Governments												
2.1 NAIC 1						XXX						
2.2 NAIC 2						XXX						
2.3 NAIC 3						XXX						
2.4 NAIC 4						XXX						
2.5 NAIC 5						XXX						
2.6 NAIC 6						XXX						
2.7 Totals						XXX						
3. U.S. States, Territories and Possessions etc., Guaranteed												
3.1 NAIC 1						XXX						
3.2 NAIC 2						XXX						
3.3 NAIC 3						XXX						
3.4 NAIC 4						XXX						
3.5 NAIC 5						XXX						
3.6 NAIC 6						XXX						
3.7 Totals						XXX						
4. U.S. Political Subdivisions of States, Territories and Possessions, Guaranteed												
4.1 NAIC 1						XXX						
4.2 NAIC 2						XXX						
4.3 NAIC 3						XXX						
4.4 NAIC 4						XXX						
4.5 NAIC 5						XXX						
4.6 NAIC 6						XXX						
4.7 Totals						XXX						
5. U.S. Special Revenue & Special Assessment Obligations, etc., Non-Guaranteed												
5.1 NAIC 1	19,517	34,024	11,154	1,448		XXX	66,143	0.0	88,536	0.0	66,143	
5.2 NAIC 2						XXX						
5.3 NAIC 3						XXX						
5.4 NAIC 4						XXX						
5.5 NAIC 5						XXX						
5.6 NAIC 6						XXX						
5.7 Totals	19,517	34,024	11,154	1,448		XXX	66,143	0.0	88,536	0.0	66,143	

S105

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

SCHEDULE D - PART 1A - SECTION 1 (Continued)

Quality and Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Types of Issues and NAIC Designations

NAIC Designation	1 1 Year or Less	2 Over 1 Year Through 5 Years	3 Over 5 Years Through 10 Years	4 Over 10 Years Through 20 Years	5 Over 20 Years	6 No Maturity Date	7 Total Current Year	8 Col. 7 as a % of Line 10.7	9 Total from Col. 6 Prior Year	10 % From Col. 7 Prior Year	11 Total Publicly Traded	12 Total Privately Placed (a)
6. Industrial & Miscellaneous (Unaffiliated)												
6.1 NAIC 1	31,311,529	44,253,586	120,529,162	6,017,231	1,556,668	XXX	203,668,176	54.3	82,602,776	29.2	99,820,611	103,847,565
6.2 NAIC 2	44,771,714	22,600,051	50,271,866	1,746,003	454,567	XXX	119,844,201	31.9	140,542,993	49.7	67,705,887	52,138,314
6.3 NAIC 3	411,196	2,042,800	984,716			XXX	3,438,712	0.9	2,529,021	0.9	995,496	2,443,216
6.4 NAIC 4	439,907	779,626	77,415			XXX	1,296,948	0.3	136,049	0.0	1,296,948	
6.5 NAIC 5	572,624	140,211	50,002	19,390		XXX	782,227	0.2	745,687	0.3	505,275	276,952
6.6 NAIC 6	537	2,089	129	83		XXX	2,838	0.0			2,838	
6.7 Totals	77,507,507	69,818,363	171,913,290	7,782,707	2,011,235	XXX	329,033,102	87.7	226,556,526	80.1	170,327,055	158,706,047
7. Hybrid Securities												
7.1 NAIC 1						XXX						
7.2 NAIC 2				350,000		XXX	350,000	0.1	350,000	0.1	350,000	
7.3 NAIC 3						XXX						
7.4 NAIC 4						XXX						
7.5 NAIC 5						XXX						
7.6 NAIC 6						XXX						
7.7 Totals				350,000		XXX	350,000	0.1	350,000	0.1	350,000	
8. Parent, Subsidiaries and Affiliates												
8.1 NAIC 1	7,365	197,471	4,904,063	4,621		XXX	5,113,519	1.4	1,565,489	0.6	43,988	5,069,532
8.2 NAIC 2			766,508			XXX	766,508	0.2				766,508
8.3 NAIC 3						XXX						
8.4 NAIC 4						XXX						
8.5 NAIC 5						XXX						
8.6 NAIC 6			524,103			XXX	524,103	0.1	77,165	0.0		524,103
8.7 Totals	7,365	197,471	6,194,674	4,621		XXX	6,404,131	1.7	1,642,654	0.6	43,988	6,360,143
9. SVO Identified Funds												
9.1 NAIC 1	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.2 NAIC 2	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.3 NAIC 3	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.4 NAIC 4	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.5 NAIC 5	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.6 NAIC 6	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.7 Totals	XXX	XXX	XXX	XXX	XXX				XXX	XXX		

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

SCHEDULE D - PART 1A - SECTION 1 (Continued)

Quality and Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Types of Issues and NAIC Designations

NAIC Designation	1 1 Year or Less	2 Over 1 Year Through 5 Years	3 Over 5 Years Through 10 Years	4 Over 10 Years Through 20 Years	5 Over 20 Years	6 No Maturity Date	7 Total Current Year	8 Col. 7 as a % of Line 10.7	9 Total from Col. 6 Prior Year	10 % From Col. 7 Prior Year	11 Total Publicly Traded	12 Total Privately Placed (a)
10. Total Bonds Current Year												
10.1 NAIC 1	(d) 31,339,271	83,839,391	125,447,032	6,023,299	1,556,668		248,205,661	66.2	XXX	XXX	139,288,565	108,917,097
10.2 NAIC 2	(d) 44,771,714	22,600,051	51,038,374	2,096,003	454,567		120,960,709	32.2	XXX	XXX	68,055,887	52,904,822
10.3 NAIC 3	(d) 411,196	2,042,800	984,716				3,438,712	0.9	XXX	XXX	995,496	2,443,216
10.4 NAIC 4	(d) 439,907	779,626	77,415				1,296,948	0.3	XXX	XXX	1,296,948	
10.5 NAIC 5	(d) 572,624	140,211	50,002	19,390			782,227	0.2	XXX	XXX	505,275	276,952
10.6 NAIC 6	(d) 537	2,089	524,232	83			526,941	0.1	XXX	XXX	2,838	524,103
10.7 Totals	77,535,249	109,404,168	178,121,771	8,138,775	2,011,235		(b) 375,211,198	100.0	XXX	XXX	210,145,008	165,066,190
10.8 Line 10.7 as a % of Col. 7	20.7	29.2	47.5	2.2	0.5		100.0	XXX	XXX	XXX	56.0	44.0
11. Total Bonds Prior Year												
11.1 NAIC 1	11,482,907	72,930,110	49,451,140	4,310,961	351,145	XXX	XXX	XXX	138,526,263	49.0	103,729,187	34,797,076
11.2 NAIC 2	61,267,336	25,579,852	50,869,456	2,720,673	455,677	XXX	XXX	XXX	140,892,993	49.8	68,960,592	71,932,401
11.3 NAIC 3	2,050,967	322,043	156,012			XXX	XXX	XXX	2,529,021	0.9	479,021	2,050,000
11.4 NAIC 4	60,466	75,583				XXX	XXX	XXX	136,049	0.0		136,049
11.5 NAIC 5	42,034	620,188	55,587	27,878		XXX	XXX	XXX	(c) 745,687	0.3	516,489	229,199
11.6 NAIC 6	47,299	2,527	27,339			XXX	XXX	XXX	(c) 77,165	0.0		77,165
11.7 Totals	74,951,009	99,530,302	100,559,534	7,059,511	806,822	XXX	XXX	XXX	(b) 282,907,179	100.0	173,685,290	109,221,889
11.8 Line 11.7 as a % of Col. 9	26.5	35.2	35.5	2.5	0.3	XXX	XXX	XXX	100.0	XXX	61.4	38.6
12. Total Publicly Traded Bonds												
12.1 NAIC 1	3,122,510	47,391,131	85,283,819	3,465,287	25,817		139,288,565	37.1	103,729,187	36.7	139,288,565	XXX
12.2 NAIC 2	2,438,225	18,764,872	44,305,161	2,093,062	454,567		68,055,887	18.1	68,960,592	24.4	68,055,887	XXX
12.3 NAIC 3	717	994,779					995,496	0.3	479,021	0.2	995,496	XXX
12.4 NAIC 4	439,907	779,626	77,415				1,296,948	0.3			1,296,948	XXX
12.5 NAIC 5	505,275						505,275	0.1	516,489	0.2	505,275	XXX
12.6 NAIC 6	537	2,089	129	83			2,838	0.0			2,838	XXX
12.7 Totals	6,507,172	67,932,497	129,666,523	5,558,431	480,384		210,145,008	56.0	173,685,290	61.4	210,145,008	XXX
12.8 Line 12.7 as a % of Col. 7	3.1	32.3	61.7	2.6	0.2		100.0	XXX	XXX	XXX	100.0	XXX
12.9 Line 12.7 as a % of Line 10.7, Col. 7, Section 10	1.7	18.1	34.6	1.5	0.1		56.0	XXX	XXX	XXX	56.0	XXX
13. Total Privately Placed Bonds												
13.1 NAIC 1	28,216,760	36,448,260	40,163,213	2,558,012	1,530,851		108,917,097	29.0	34,797,076	12.3	XXX	108,917,097
13.2 NAIC 2	42,333,489	3,835,179	6,733,213	2,941			52,904,822	14.1	71,932,401	25.4	XXX	52,904,822
13.3 NAIC 3	410,479	1,048,021	984,716				2,443,216	0.7	2,050,000	0.7	XXX	2,443,216
13.4 NAIC 4								0.0	136,049	0.0	XXX	
13.5 NAIC 5	67,349	140,211	50,002	19,390			276,952	0.1	229,199	0.1	XXX	276,952
13.6 NAIC 6			524,103				524,103	0.1	77,165	0.0	XXX	524,103
13.7 Totals	71,028,077	41,471,671	48,455,248	2,580,344	1,530,851		165,066,190	44.0	109,221,889	38.6	XXX	165,066,190
13.8 Line 13.7 as a % of Col. 7	43.0	25.1	29.4	1.6	0.9		100.0	XXX	XXX	XXX	XXX	100.0
13.9 Line 13.7 as a % of Line 10.7, Col. 7, Section 10	18.9	11.1	12.9	0.7	0.4		44.0	XXX	XXX	XXX	XXX	44.0

(a) Includes \$ 160,379,318 freely tradable under SEC Rule 144 or qualified for resale under SEC Rule 144A.

(b) Includes \$ current year, \$ prior year of bonds with Z designations and \$, current year \$ prior year of bonds with Z* designations. The letter "Z" means the NAIC designation was not assigned by the Securities Valuation Office (SVO) at the date of the statement. "Z*" means the SVO could not evaluate the obligation because valuation procedures for the security class are under regulatory review.

(c) Includes \$ current year, \$ prior year of bonds with 5* designations and \$ 526,940 , current year \$ prior year of bonds with 6* designations. "5*" means the NAIC designation was assigned by the (SVO) in reliance on the insurer's certification that the issuer is current in all principal and interest payments. "6*" means the NAIC designation was assigned by the SVO due to inadequate certification of principal and interest payments.

(d) Includes the following amount of short-term and cash equivalent bonds by NAIC designation: NAIC 1 \$ 24,998,467 ; NAIC 2 \$ 39,995,922 ; NAIC 3 \$; NAIC 4 \$; NAIC 5 \$; NAIC 6 \$

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

SCHEDULE D - PART 1A - SECTION 2

Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Type and Subtype of Issues

Distribution by Type	1 1 Year or Less	2 Over 1 Year Through 5 Years	3 Over 5 Years Through 10 Years	4 Over 10 Years Through 20 Years	5 Over 20 Years	6 No Maturity Date	7 Total Current Year	8 Col. 7 as a % of Line 10.6	9 Total from Col. 6 Prior Year	10 % From Col. 7 Prior Year	11 Total Publicly Traded	12 Total Privately Placed
1. U.S. Governments												
1.1 Issuer Obligations		39,351,170				XXX	39,351,170	10.5	54,261,781	19.2	39,351,170	
1.2 Residential Mortgage-Backed Securities	860	3,140	2,653			XXX	6,653	0.0	7,681	0.0	6,653	
1.3 Commercial Mortgage-Backed Securities						XXX						
1.4 Other Loan-Backed and Structured Securities						XXX						
1.5 Totals	860	39,354,310	2,653			XXX	39,357,823	10.5	54,269,462	19.2	39,357,823	
2. All Other Governments												
2.1 Issuer Obligations						XXX						
2.2 Residential Mortgage-Backed Securities						XXX						
2.3 Commercial Mortgage-Backed Securities						XXX						
2.4 Other Loan-Backed and Structured Securities						XXX						
2.5 Totals						XXX						
3. U.S. States, Territories and Possessions, Guaranteed												
3.1 Issuer Obligations						XXX						
3.2 Residential Mortgage-Backed Securities						XXX						
3.3 Commercial Mortgage-Backed Securities						XXX						
3.4 Other Loan-Backed and Structured Securities						XXX						
3.5 Totals						XXX						
4. U.S. Political Subdivisions of States, Territories and Possessions, Guaranteed												
4.1 Issuer Obligations						XXX						
4.2 Residential Mortgage-Backed Securities						XXX						
4.3 Commercial Mortgage-Backed Securities						XXX						
4.4 Other Loan-Backed and Structured Securities						XXX						
4.5 Totals						XXX						
5. U.S. Special Revenue & Special Assessment Obligations etc., Non-Guaranteed												
5.1 Issuer Obligations						XXX						
5.2 Residential Mortgage-Backed Securities	19,517	34,024	11,154	1,448		XXX	66,143	0.0	88,536	0.0	66,143	
5.3 Commercial Mortgage-Backed Securities						XXX						
5.4 Other Loan-Backed and Structured Securities						XXX						
5.5 Totals	19,517	34,024	11,154	1,448		XXX	66,143	0.0	88,536	0.0	66,143	
6. Industrial and Miscellaneous												
6.1 Issuer Obligations	72,486,170	30,614,075	70,744,658	3,817,920	454,567	XXX	178,117,390	47.5	166,639,646	58.9	95,363,702	82,753,688
6.2 Residential Mortgage-Backed Securities	716,738	1,549,073	386,092	316,867	228,210	XXX	3,196,979	0.9	3,589,298	1.3	2,645,226	551,753
6.3 Commercial Mortgage-Backed Securities	2,133,248	13,853,353	67,197,824			XXX	83,184,425	22.2	46,403,068	16.4	67,821,627	15,362,798
6.4 Other Loan-Backed and Structured Securities	2,171,351	23,801,862	33,584,715	3,647,919	1,328,458	XXX	64,534,305	17.2	9,924,514	3.5	4,496,499	60,037,806
6.5 Totals	77,507,507	69,818,363	171,913,289	7,782,706	2,011,235	XXX	329,033,099	87.7	226,556,526	80.1	170,327,055	158,706,045
7. Hybrid Securities												
7.1 Issuer Obligations				350,000		XXX	350,000	0.1	350,000	0.1	350,000	
7.2 Residential Mortgage-Backed Securities						XXX						
7.3 Commercial Mortgage-Backed Securities						XXX						
7.4 Other Loan-Backed and Structured Securities						XXX						
7.5 Totals				350,000		XXX	350,000	0.1	350,000	0.1	350,000	
8. Parent, Subsidiaries and Affiliates												
8.1 Issuer Obligations						XXX						
8.2 Residential Mortgage-Backed Securities	7,365	67,577	33,958	4,621		XXX	113,520	0.0	135,473	0.0	43,988	69,532
8.3 Commercial Mortgage-Backed Securities						XXX						
8.4 Other Loan-Backed and Structured Securities		129,894	6,160,717			XXX	6,290,611	1.7	1,507,181	0.5		6,290,611
8.5 Totals	7,365	197,471	6,194,674	4,621		XXX	6,404,131	1.7	1,642,654	0.6	43,988	6,360,143

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

SCHEDULE D - PART 1A - SECTION 2 (Continued)

Maturity Distribution of All Bonds Owned December 31, at Book/Adjusted Carrying Values by Major Type and Subtype of Issues

Distribution by Type	1 1 Year or Less	2 Over 1 Year Through 5 Years	3 Over 5 Years Through 10 Years	4 Over 10 Years Through 20 Years	5 Over 20 Years	6 No Maturity Date	7 Total Current Year	8 Col. 7 as a % of Line 10.6	9 Total from Col. 6 Prior Year	10 % From Col. 7 Prior Year	11 Total Publicly Traded	12 Total Privately Placed
9. SVO Identified Funds												
9.1 Exchange Traded Funds Identified by the SVO	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.2 Bond Mutual Funds Identified by the SVO	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
9.3 Totals	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
10. Total Bonds Current Year												
10.1 Issuer Obligations	72,486,170	69,965,245	70,744,658	4,167,920	454,567	XXX	217,818,559	58.1	XXX	XXX	135,064,872	82,753,688
10.2 Residential Mortgage-Backed Securities	744,480	1,653,814	433,856	322,935	228,210	XXX	3,383,295	0.9	XXX	XXX	2,762,010	621,285
10.3 Commercial Mortgage-Backed Securities	2,133,248	13,853,353	67,197,824			XXX	83,184,425	22.2	XXX	XXX	67,821,627	15,362,798
10.4 Other Loan-Backed and Structured Securities	2,171,351	23,931,756	39,745,432	3,647,919	1,328,458	XXX	70,824,916	18.9	XXX	XXX	4,496,499	66,328,417
10.5 SVO Identified Funds	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
10.6 Totals	77,535,248	109,404,168	178,121,770	8,138,774	2,011,235		375,211,196	100.0	XXX	XXX	210,145,008	165,066,188
10.7 Line 10.6 as a % of Col. 7	20.7	29.2	47.5	2.2	0.5		100.0	XXX	XXX	XXX	56.0	44.0
11. Total Bonds Prior Year												
11.1 Issuer Obligations	71,407,304	81,133,826	62,169,976	6,084,644	455,677	XXX	XXX	XXX	221,251,427	78.2	138,773,635	82,477,792
11.2 Residential Mortgage-Backed Securities	710,945	1,958,421	507,783	299,546	344,294	XXX	XXX	XXX	3,820,989	1.4	3,038,315	782,673
11.3 Commercial Mortgage-Backed Securities	2,002,222	7,486,597	36,914,250			XXX	XXX	XXX	46,403,068	16.4	31,018,803	15,384,265
11.4 Other Loan-Backed and Structured Securities	830,539	8,951,458	967,525	675,321	6,851	XXX	XXX	XXX	11,431,695	4.0	854,537	10,577,159
11.5 SVO Identified Funds	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
11.6 Totals	74,951,009	99,530,302	100,559,534	7,059,511	806,822	XXX	XXX	XXX	282,907,179	100.0	173,685,289	109,221,889
11.7 Line 11.6 as a % of Col. 9	26.5	35.2	35.5	2.5	0.3	XXX	XXX	XXX	100.0	XXX	61.4	38.6
12. Total Publicly Traded Bonds												
12.1 Issuer Obligations	3,470,277	63,412,447	63,562,601	4,164,979	454,567	XXX	135,064,872	36.0	138,773,635	49.1	135,064,872	XXX
12.2 Residential Mortgage-Backed Securities	674,387	1,424,321	367,924	295,378		XXX	2,762,010	0.7	3,038,315	1.1	2,762,010	XXX
12.3 Commercial Mortgage-Backed Securities	2,109,456	1,958,517	63,753,654			XXX	67,821,627	18.1	31,018,803	11.0	67,821,627	XXX
12.4 Other Loan-Backed and Structured Securities	253,052	1,137,211	1,982,344	1,098,074	25,817	XXX	4,496,499	1.2	854,537	0.3	4,496,499	XXX
12.5 SVO Identified Funds	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
12.6 Totals	6,507,172	67,932,497	129,666,523	5,558,431	480,384		210,145,008	56.0	173,685,289	61.4	210,145,008	XXX
12.7 Line 12.6 as a % of Col. 7	3.1	32.3	61.7	2.6	0.2		100.0	XXX	XXX	XXX	100.0	XXX
12.8 Line 12.6 as a % of Line 10.6, Col. 7, Section 10	1.7	18.1	34.6	1.5	0.1		56.0	XXX	XXX	XXX	56.0	XXX
13. Total Privately Placed Bonds												
13.1 Issuer Obligations	69,015,892	6,552,798	7,182,057	2,941		XXX	82,753,688	22.1	82,477,792	29.2	XXX	82,753,688
13.2 Residential Mortgage-Backed Securities	70,093	229,493	65,933	27,557	228,210	XXX	621,285	0.2	782,673	0.3	XXX	621,285
13.3 Commercial Mortgage-Backed Securities	23,792	11,894,836	3,444,170			XXX	15,362,798	4.1	15,384,265	5.4	XXX	15,362,798
13.4 Other Loan-Backed and Structured Securities	1,918,299	22,794,544	37,763,088	2,549,845	1,302,641	XXX	66,328,417	17.7	10,577,159	3.7	XXX	66,328,417
13.5 SVO Identified Funds	XXX	XXX	XXX	XXX	XXX				XXX	XXX		
13.6 Totals	71,028,076	41,471,671	48,455,247	2,580,343	1,530,851		165,066,188	44.0	109,221,889	38.6	XXX	165,066,188
13.7 Line 13.6 as a % of Col. 7	43.0	25.1	29.4	1.6	0.9		100.0	XXX	XXX	XXX	XXX	100.0
13.8 Line 13.6 as a % of Line 10.6, Col. 7, Section 10	18.9	11.1	12.9	0.7	0.4		44.0	XXX	XXX	XXX	XXX	44.0

ANNUAL STATEMENT FOR THE YEAR 2016 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	4,995,929	4,995,929			
2. Cost of short-term investments acquired	8,472,961	8,472,961			
3. Accrual of discount	29,971	29,971			
4. Unrealized valuation increase (decrease)					
5. Total gain (loss) on disposals	308	308			
6. Deduct consideration received on disposals	13,499,169	13,499,169			
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)					
11. Deduct total nonadmitted amounts					
12. Statement value at end of current period (Line 10 minus Line 11)					

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

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

NONE

Schedule DB - Part B - Verification - Futures Contracts

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

NONE

SCHEDULE E - VERIFICATION BETWEEN YEARS

(Cash Equivalents)

	1	2	3
	Total	Bonds	Other (a)
1. Book/adjusted carrying value, December 31 of prior year	55,082,304	55,082,304	
2. Cost of cash equivalents acquired	1,147,813,746	1,147,813,746	
3. Accrual of discount	323,001	323,001	
4. Unrealized valuation increase (decrease)			
5. Total gain (loss) on disposals	(464)	(464)	
6. Deduct consideration received on disposals	1,138,224,197	1,138,224,197	
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)	64,994,390	64,994,390	
11. Deduct total nonadmitted amounts			
12. Statement value at end of current period (Line 10 minus Line 11)	64,994,390	64,994,390	

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