

**QUARTERLY STATEMENT**

**OF THE**

**Massachusetts Mutual Life Insurance Company**

**TO THE**

**Insurance Department**

**OF THE**

**STATE OF**

**FOR THE QUARTER ENDED  
JUNE 30, 2016**

**LIFE AND ACCIDENT AND HEALTH**

**2016**



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

# QUARTERLY STATEMENT

AS OF JUNE 30, 2016

OF THE CONDITION AND AFFAIRS OF THE

## Massachusetts Mutual Life Insurance Company

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

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

Country of Domicile United States of America

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

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

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

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

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

Internet Website Address www.massmutual.com

Statutory Statement Contact Tammy A. Peatman, 413-744-6327  
(Name) (Area Code) (Telephone Number)  
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 #, Executive Vice President, Chief Financial Officer and Chief Actuary Michael Robert Fanning, Executive Vice President Melvin Timothy Corbett, Executive Vice President and Chief Investment Officer  
Robert Joseph Casale, Executive Vice President and Chief Information Officer Mark Douglas Roellig, Executive Vice President and General Counsel Elaine Anne Sarsynski, Executive Vice President  
Adnan Omar Ahmed, Executive Vice President and Chief Human Resources Officer

### DIRECTORS OR TRUSTEES

Roger William Crandall - Chairman Mark Thomas Bertolini Kathleen Ann Corbet - Lead Director  
James Henry DeGraffenreidt, Jr. Patricia Diaz Dennis Robert Alan Essner  
Isabella Davidov Goren Raymond Walter LeBoeuf Jeffrey Marc Leiden  
Cathy Elizabeth Minehan Marc Francis Racicot Laura Jeanne Sen  
William Taylor Spitz Howard Todd Stitzer

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.....

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**ASSETS**

	Current Statement Date			4 December 31 Prior Year Net Admitted Assets
	1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	
1. Bonds .....	84,562,005,829		84,562,005,829	79,546,596,121
2. Stocks:				
2.1 Preferred stocks .....	492,953,162		492,953,162	532,949,649
2.2 Common stocks .....	12,004,209,061		12,004,209,061	9,099,961,966
3. Mortgage loans on real estate:				
3.1 First liens .....	21,709,731,790		21,709,731,790	22,007,729,394
3.2 Other than first liens.....				
4. Real estate:				
4.1 Properties occupied by the company (less \$ encumbrances) .....	168,034,648		168,034,648	170,369,606
4.2 Properties held for the production of income (less \$ .....636,246,205 encumbrances) .....	792,357,553		792,357,553	756,333,883
4.3 Properties held for sale (less \$ encumbrances) .....				1,473,276
5. Cash (\$ .....411,746,245 ), cash equivalents (\$ .....1,826,666,014 ) and short-term investments (\$ .....679,250,337 ) .....	2,917,662,596		2,917,662,596	3,048,645,110
6. Contract loans (including \$ ..... premium notes) .....	12,020,480,551	502,295	12,019,978,256	11,812,577,658
7. Derivatives .....	15,949,535,467		15,949,535,467	9,268,078,124
8. Other invested assets .....	6,997,468,473	52,808,290	6,944,660,183	7,473,266,370
9. Receivables for securities .....	136,626,064		136,626,064	41,926,626
10. Securities lending reinvested collateral assets .....				
11. Aggregate write-ins for invested assets .....				
12. Subtotals, cash and invested assets (Lines 1 to 11) .....	157,751,065,194	53,310,585	157,697,754,609	143,759,907,783
13. Title plants less \$ ..... charged off (for Title insurers only) .....				
14. Investment income due and accrued .....	2,175,646,487	14,176,078	2,161,470,409	1,833,663,950
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection .....	109,815,407	4,737,789	105,077,618	126,174,738
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ ..... earned but unbilled premiums) .....	645,176,527		645,176,527	633,398,443
15.3 Accrued retrospective premiums (\$ ..... ) and contracts subject to redetermination (\$ ..... ) .....				
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers .....	37,690,654		37,690,654	45,318,929
16.2 Funds held by or deposited with reinsured companies .....				
16.3 Other amounts receivable under reinsurance contracts .....	10,528,047		10,528,047	24,423,453
17. Amounts receivable relating to uninsured plans .....				
18.1 Current federal and foreign income tax recoverable and interest thereon .....	28,091,683		28,091,683	65,324,933
18.2 Net deferred tax asset .....	1,167,227,012		1,167,227,012	1,298,531,068
19. Guaranty funds receivable or on deposit .....	26,434,665		26,434,665	26,501,012
20. Electronic data processing equipment and software .....	401,812,181	365,208,933	36,603,248	38,454,169
21. Furniture and equipment, including health care delivery assets (\$ ..... ) .....	47,165,372	47,165,372		
22. Net adjustment in assets and liabilities due to foreign exchange rates .....				
23. Receivables from parent, subsidiaries and affiliates .....	108,516,325		108,516,325	54,081,461
24. Health care (\$ ..... ) and other amounts receivable .....				
25. Aggregate write-ins for other than invested assets .....	3,010,074,895	948,510,545	2,061,564,349	2,067,381,553
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) .....	165,519,244,449	1,433,109,302	164,086,135,146	149,973,161,492
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts .....	62,357,731,098		62,357,731,098	60,385,549,743
28. Total (Lines 26 and 27) .....	227,876,975,547	1,433,109,302	226,443,866,244	210,358,711,235
<b>DETAILS OF WRITE-INS</b>				
1101. ....				
1102. ....				
1103. ....				
1198. Summary of remaining write-ins for Line 11 from overflow page .....				
1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above) .....				
2501. Corporate owned life insurance (COLI) .....	1,962,485,337		1,962,485,337	1,926,962,561
2502. Employee insurance plan advances .....	40,321,479	42,957	40,278,521	39,614,950
2503. Investment in trust .....	31,035,173		31,035,173	32,401,020
2598. Summary of remaining write-ins for Line 25 from overflow page .....	976,232,906	948,467,588	27,765,318	68,403,022
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) .....	3,010,074,895	948,510,545	2,061,564,349	2,067,381,553

## STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**LIABILITIES, SURPLUS AND OTHER FUNDS**

	1 Current Statement Date	2 December 31 Prior Year
1. Aggregate reserve for life contracts \$ ..... 104,063,015,000 less \$ ..... included in Line 6.3 (including \$ ..... 48,702,398 Modco Reserve) .....	104,063,015,000	99,942,257,473
2. Aggregate reserve for accident and health contracts (including \$ ..... 70,029,656 Modco Reserve) .....	2,738,755,754	2,683,981,025
3. Liability for deposit-type contracts (including \$ ..... Modco Reserve) .....	10,878,499,299	10,491,117,975
4. Contract claims:		
4.1 Life .....	378,784,893	420,273,237
4.2 Accident and health .....	24,507,582	24,268,522
5. Policyholders' dividends \$ ..... 10,320,669 and coupons \$ ..... due and unpaid .....	10,320,669	10,210,995
6. Provision for policyholders' dividends and coupons payable in following calendar year - estimated amounts:		
6.1 Dividends apportioned for payment (including \$ ..... Modco) .....	1,763,084,220	1,731,292,553
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 \$ ..... 11,230,986 accident and health premiums .....	36,679,166	30,048,083
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 .....	15,381,661	12,956,022
9.3 Other amounts payable on reinsurance, including \$ ..... 16,545,486 assumed and \$ ..... 8,747,853 ceded .....	25,293,339	27,318,900
9.4 Interest Maintenance Reserve .....	493,513,593	349,152,262
10. Commissions to agents due or accrued-life and annuity contracts \$ ..... 25,079,742 , accident and health \$ ..... 313,138 and deposit-type contract funds \$ ..... 9,012,761 .....	34,405,641	28,117,416
11. Commissions and expense allowances payable on reinsurance assumed .....	5,148,949	5,301,675
12. General expenses due or accrued .....	923,564,676	958,827,158
13. Transfers to Separate Accounts due or accrued (net) (including \$ ..... (186,214,361) accrued for expense allowances recognized in reserves, net of reinsured allowances) .....	(232,590,903)	(245,896,321)
14. Taxes, licenses and fees due or accrued, excluding federal income taxes .....	22,876,576	37,853,252
15.1 Current federal and foreign income taxes, including \$ ..... on realized capital gains (losses) .....		
15.2 Net deferred tax liability .....		
16. Unearned investment income .....	277,768,119	130,995,421
17. Amounts withheld or retained by company as agent or trustee .....	34,232,710	35,064,726
18. Amounts held for agents' account, including \$ ..... agents' credit balances .....	260,654,185	259,075,424
19. Remittances and items not allocated .....	395,745,101	(21,613,176)
20. Net adjustment in assets and liabilities due to foreign exchange rates .....	1,993	9,554
21. Liability for benefits for employees and agents if not included above .....	178,169,879	176,535,932
22. Borrowed money \$ ..... 287,388,074 and interest thereon \$ .....	287,388,074	276,817,818
23. Dividends to stockholders declared and unpaid .....		
24. Miscellaneous liabilities:		
24.01 Asset valuation reserve .....	3,333,818,859	2,817,138,360
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 .....	32,223,391	18,212,103
24.05 Drafts outstanding .....		
24.06 Liability for amounts held under uninsured plans .....		
24.07 Funds held under coinsurance .....		
24.08 Derivatives .....	11,688,191,569	5,840,340,713
24.09 Payable for securities .....	187,520,728	142,215,754
24.10 Payable for securities lending .....		
24.11 Capital notes \$ ..... and interest thereon \$ .....		
25. Aggregate write-ins for liabilities .....	10,273,607,922	8,817,870,120
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) .....	148,130,562,645	134,999,742,976
27. From Separate Accounts Statement .....	62,348,459,045	60,376,436,122
28. Total liabilities (Lines 26 and 27) .....	210,479,021,690	195,376,179,098
29. Common capital stock .....		
30. Preferred capital stock .....		
31. Aggregate write-ins for other than special surplus funds .....		
32. Surplus notes .....	2,231,930,599	2,231,637,183
33. Gross paid in and contributed surplus .....		
34. Aggregate write-ins for special surplus funds .....	3,250,000	3,250,000
35. Unassigned funds (surplus) .....	13,729,663,955	12,747,644,954
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 \$ ..... 9,272,053 in Separate Accounts Statement) .....	15,964,844,554	14,982,532,137
38. Totals of Lines 29, 30 and 37 .....	15,964,844,554	14,982,532,137
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) .....	226,443,866,244	210,358,711,235
<b>DETAILS OF WRITE-INS</b>		
2501. Repurchase agreements .....	4,862,685,405	5,134,118,339
2502. Derivative collateral .....	3,782,304,582	2,126,484,960
2503. Derivative interest liability .....	1,547,072,831	1,474,873,702
2598. Summary of remaining write-ins for Line 25 from overflow page .....	81,545,104	82,393,119
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) .....	10,273,607,922	8,817,870,120
3101. ....		
3102. ....		
3103. ....		
3198. Summary of remaining write-ins for Line 31 from overflow page .....		
3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) .....		
3401. Designated surplus for group annuities .....	2,500,000	2,500,000
3402. Designated surplus for separate account business .....	750,000	750,000
3403. ....		
3498. Summary of remaining write-ins for Line 34 from overflow page .....		
3499. Totals (Lines 3401 through 3403 plus 3498)(Line 34 above) .....	3,250,000	3,250,000

**SUMMARY OF OPERATIONS**

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
1. Premiums and annuity considerations for life and accident and health contracts	10,011,649,198	10,191,379,251	21,530,383,076
2. Considerations for supplementary contracts with life contingencies	14,472,415	7,015,177	12,366,075
3. Net investment income	3,005,232,993	2,959,096,717	6,246,441,543
4. Amortization of Interest Maintenance Reserve (IMR)	65,475,127	70,929,604	140,397,231
5. Separate Accounts net gain from operations excluding unrealized gains or losses	1,997	(18,629)	(13,121)
6. Commissions and expense allowances on reinsurance ceded	48,975,529	47,449,617	110,106,393
7. Reserve adjustments on reinsurance ceded	9,052,436	11,466,769	16,029,021
8. Miscellaneous Income:			
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	175,999,697	177,414,729	361,717,460
8.2 Charges and fees for deposit-type contracts			
8.3 Aggregate write-ins for miscellaneous income	199,274,221	186,910,121	309,723,915
9. Totals (Lines 1 to 8.3)	13,530,133,613	13,651,643,356	28,727,151,593
10. Death benefits	855,270,099	864,735,930	1,763,896,509
11. Matured endowments (excluding guaranteed annual pure endowments)	9,168,791	8,595,399	15,080,860
12. Annuity benefits	835,934,274	723,078,081	1,469,389,047
13. Disability benefits and benefits under accident and health contracts	179,692,486	184,004,352	365,311,161
14. Coupons, guaranteed annual pure endowments and similar benefits			
15. Surrender benefits and withdrawals for life contracts	6,235,698,120	6,257,915,200	12,368,838,810
16. Group conversions			
17. Interest and adjustments on contract or deposit-type contract funds	154,035,189	139,743,248	283,860,603
18. Payments on supplementary contracts with life contingencies	5,579,814	5,542,864	10,866,006
19. Increase in aggregate reserves for life and accident and health contracts	4,175,532,226	3,869,745,071	9,344,994,281
20. Totals (Lines 10 to 19)	12,450,910,999	12,053,360,145	25,622,237,277
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	390,587,387	353,852,222	743,202,207
22. Commissions and expense allowances on reinsurance assumed	51,386,765	62,271,379	126,121,762
23. General insurance expenses	952,777,732	866,191,487	1,789,844,929
24. Insurance taxes, licenses and fees, excluding federal income taxes	113,317,228	105,412,790	187,133,089
25. Increase in loading on deferred and uncollected premiums	(10,156,232)	1,245,896	5,389,038
26. Net transfers to or (from) Separate Accounts net of reinsurance	(8,907,080)	(313,538,982)	(753,445,438)
27. Aggregate write-ins for deductions	(792,737,069)	(439,650,687)	(921,194,332)
28. Totals (Lines 20 to 27)	13,147,179,730	12,689,144,250	26,799,288,532
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	382,953,883	962,499,106	1,927,863,061
30. Dividends to policyholders	796,392,495	757,892,380	1,727,593,543
31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30)	(413,438,612)	204,606,726	200,269,518
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	(187,194,581)	(110,147,456)	(153,275,542)
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)	(226,244,031)	314,754,182	353,545,060
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ (2,590,631) (excluding taxes of \$ (10,850,611) transferred to the IMR)	71,351,147	12,018,181	58,635,533
35. Net income (Line 33 plus Line 34)	(154,892,884)	326,772,363	412,180,593
<b>CAPITAL AND SURPLUS ACCOUNT</b>			
36. Capital and surplus, December 31, prior year	14,982,532,137	14,231,326,051	14,231,326,051
37. Net income (Line 35)	(154,892,884)	326,772,363	412,180,593
38. Change in net unrealized capital gains (losses) less capital gains tax of \$ 287,453,383	1,903,054,791	(83,601,437)	194,731,062
39. Change in net unrealized foreign exchange capital gain (loss)	(158,031,857)	(27,319,308)	(225,759,636)
40. Change in net deferred income tax	59,523,566	2,943,715	231,108,817
41. Change in nonadmitted assets	(129,357,152)	(51,284,237)	(15,892,928)
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	(516,680,499)	(246,457,830)	(196,860,334)
45. Change in treasury stock			
46. Surplus (contributed to) withdrawn from Separate Accounts during period	80,460	(31,502)	(30,580)
47. Other changes in surplus in Separate Accounts Statement	156,435	64,499	(833,061)
48. Change in surplus notes	293,417	491,122,710	491,416,033
49. Cumulative effect of changes in accounting principles		2,617,428	2,617,428
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	(21,833,860)	13,407,435	(141,471,308)
54. Net change in capital and surplus for the year (Lines 37 through 53)	982,312,417	428,233,836	751,206,086
55. Capital and surplus, as of statement date (Lines 36 + 54)	15,964,844,554	14,659,559,887	14,982,532,137
<b>DETAILS OF WRITE-INS</b>			
08.301. Administrative fee and other income	199,274,221	186,910,121	372,823,915
08.302. COLI benefit funding cost			(63,100,000)
08.303.			
08.398. Summary of remaining write-ins for Line 8.3 from overflow page			
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	199,274,221	186,910,121	309,723,915
2701. Change in reserves due to reinsurance agreement	(796,521,254)	(456,827,745)	(941,820,541)
2702. Market value adjustment transfer	(7,386,222)	(5,995,405)	(17,283,670)
2703. Change in liability for employee/agent benefit plans	7,235,131	8,239,849	9,259,306
2798. Summary of remaining write-ins for Line 27 from overflow page	3,935,276	14,932,614	28,650,573
2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(792,737,069)	(439,650,687)	(921,194,332)
5301. Other changes in surplus	(21,833,860)	13,407,435	8,701,713
5302. Change in minimum pension liability			(150,173,021)
5303.			
5398. Summary of remaining write-ins for Line 53 from overflow page			
5399. Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(21,833,860)	13,407,435	(141,471,308)

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**CASH FLOW**

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
<b>Cash from Operations</b>			
1. Premiums collected net of reinsurance .....	10,040,063,440	10,230,625,877	20,016,614,129
2. Net investment income .....	2,932,928,114	2,897,266,000	6,213,099,970
3. Miscellaneous income .....	413,253,910	451,361,841	824,995,376
4. Total (Lines 1 to 3) .....	13,386,245,464	13,579,253,718	27,054,709,475
5. Benefit and loss related payments .....	8,197,344,557	8,420,345,557	16,260,499,766
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts .....	(21,975,775)	(322,011,096)	(770,582,444)
7. Commissions, expenses paid and aggregate write-ins for deductions .....	808,647,449	1,115,196,904	1,964,915,482
8. Dividends paid to policyholders .....	764,491,155	727,700,407	1,565,323,828
9. Federal and foreign income taxes paid (recovered) net of \$ ..... (2,895,096) tax on capital gains (losses) .....	(226,543,390)	335,911,594	234,355,069
10. Total (Lines 5 through 9) .....	9,521,963,996	10,277,143,366	19,254,511,701
11. Net cash from operations (Line 4 minus Line 10) .....	3,864,281,468	3,302,110,352	7,800,197,774
<b>Cash from Investments</b>			
12. Proceeds from investments sold, matured or repaid:			
12.1 Bonds .....	6,435,369,782	7,453,820,325	12,495,748,943
12.2 Stocks .....	216,544,888	692,376,180	1,211,212,794
12.3 Mortgage loans .....	1,633,776,165	894,197,512	2,574,694,271
12.4 Real estate .....	3,986,096		110,006,251
12.5 Other invested assets .....	367,546,777	424,424,609	2,560,163,094
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments .....	(18,252,807)	6,477,601	2,935,660
12.7 Miscellaneous proceeds .....	395,948,025	(237,250,097)	161,376,236
12.8 Total investment proceeds (Lines 12.1 to 12.7) .....	9,034,918,926	9,234,046,130	19,116,137,249
13. Cost of investments acquired (long-term only):			
13.1 Bonds .....	11,644,318,071	9,273,378,627	15,011,821,492
13.2 Stocks .....	900,512,955	781,341,271	1,114,663,420
13.3 Mortgage loans .....	1,419,914,159	1,923,064,243	5,296,118,174
13.4 Real estate .....	87,825,639	140,569,939	283,415,424
13.5 Other invested assets .....	827,102,826	943,800,815	3,443,452,757
13.6 Miscellaneous applications .....	(18,456,264)	28,061,884	28,944,756
13.7 Total investments acquired (Lines 13.1 to 13.6) .....	14,861,217,386	13,090,216,779	25,178,416,023
14. Net increase (or decrease) in contract loans and premium notes .....	207,527,275	208,483,025	657,744,827
15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14) .....	(6,033,825,735)	(4,064,653,674)	(6,720,023,601)
<b>Cash from Financing and Miscellaneous Sources</b>			
16. Cash provided (applied):			
16.1 Surplus notes, capital notes .....	293,417	491,122,710	491,416,033
16.2 Capital and paid in surplus, less treasury stock .....			
16.3 Borrowed funds .....	10,577,024	838,902	8,903,849
16.4 Net deposits on deposit-type contracts and other insurance liabilities .....	277,743,191	(20,876,642)	830,860,713
16.5 Dividends to stockholders .....			
16.6 Other cash provided (applied) .....	1,749,948,121	433,978,248	(1,242,727,751)
17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6) .....	2,038,561,753	905,063,218	88,452,844
<b>RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS</b>			
18. Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17) .....	(130,982,514)	142,519,896	1,168,627,017
19. Cash, cash equivalents and short-term investments:			
19.1 Beginning of year .....	3,048,645,110	1,880,018,093	1,880,018,093
19.2 End of period (Line 18 plus Line 19.1) .....	2,917,662,596	2,022,537,989	3,048,645,110

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

20.0001. Other invested assets contributed to subsidiary .....	682,102,736		
20.0002. Bond conversions and refinancing .....	157,105,141	888,224,920	1,196,967,823
20.0003. Other invested assets to stocks .....	100,262,083		
20.0004. Transfer of mortgage loan to other than invested assets .....	26,550,000		
20.0005. Bank loan rollovers .....	4,591,260	91,422,027	142,660,534
20.0006. Other invested assets to bonds .....	2,582,572		
20.0007. Net investment income payment in-kind bonds .....	1,622,899	1,657,436	11,870,342
20.0008. Dividend reinvestment .....	1,471,112	13,098,502	16,248,526
20.0009. Stock conversions .....	1,362,817	23,812,189	33,907,076
20.0010. Interest capitalization for long-term debt .....	1,062,428	3,330,626	3,178,617

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

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

20.0011. Transfer from other invested assets to real estate in connection with a change in accounting principle .....		23,950,611	23,950,611
20.0012. Other invested assets stock distribution .....		1,500,448	5,075,094
20.0013. Premium recognized for a group annuity contract .....		816,524,224	1,470,936,408
20.0014. Bonds received as consideration for a group annuity contract .....		812,352,541	1,466,416,514
20.0015. Bonds received as consideration for assignment of deposit-type liabilities .....			690,233,257
20.0016. Deposit-type liabilities assigned in exchange for bonds .....			690,233,257
20.0017. Bonds received in exchange for equity of an indirect subsidiary .....			184,795,000
20.0018. Transfers from bonds to other invested assets .....			19,216,790
20.0019. Other invested assets received as consideration for a group annuity contract .....		4,171,683	4,519,894

**EXHIBIT 1****DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS**

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
1. Industrial life .....			
2. Ordinary life insurance .....	2,827,817,993	2,639,207,818	5,856,832,074
3. Ordinary individual annuities .....	1,114,301,130	1,010,616,328	2,236,692,493
4. Credit life (group and individual) .....			
5. Group life insurance .....	798,656,319	671,749,307	1,411,032,497
6. Group annuities .....	4,543,681,056	5,066,370,300	10,543,969,860
7. A & H - group .....	79,305	87,300	168,621
8. A & H - credit (group and individual) .....			
9. A & H - other .....	349,646,622	343,725,524	693,011,064
10. Aggregate of all other lines of business .....			
11. Subtotal .....	9,634,182,425	9,731,756,577	20,741,706,609
12. Deposit-type contracts .....	1,870,223,236	630,487,198	3,932,606,315
13. Total	11,504,405,661	10,362,243,775	24,674,312,924
DETAILS OF WRITE-INS			
1001. ....			
1002. ....			
1003. ....			
1098. Summary of remaining write-ins for Line 10 from overflow page .....			
1099. Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)			



## NOTES TO FINANCIAL STATEMENTS

### TABLE OF CONTENTS

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

## NOTES TO FINANCIAL STATEMENTS

### Note 1 – Summary of Significant Accounting Policies and Going Concern

a. Accounting practices:

The accompanying financial statements of Massachusetts Mutual 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 Commonwealth of Massachusetts Division of Insurance (the Division).

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

	State of Domicile	2016	2015
<b>NET INCOME</b>			
(1) State basis (Page 4, Line 35, Columns 1 & 3)	MA	\$ (154,892,884)	\$ 412,180,593
(2) State prescribed practices that increase (decrease) NAIC SAP	-	-	-
(3) State permitted practices that increase (decrease) NAIC SAP	-	-	-
(4) NAIC SAP (1-2-3=4)	MA	<u>\$ (154,892,884)</u>	<u>\$ 412,180,593</u>
<b>SURPLUS</b>			
(5) State basis (Page 3, Line 38, Columns 1 & 2)	MA	\$ 15,964,844,554	\$ 14,982,532,137
(6) State prescribed practices that increase (decrease) NAIC SAP	-	-	-
(7) State permitted practices that increase (decrease) NAIC SAP	-	-	-
(8) NAIC SAP (5-6-7=8)	MA	<u>\$ 15,964,844,554</u>	<u>\$ 14,982,532,137</u>

b. Use of estimates in the preparation of the financial statements - No change

c. Accounting policy:

(1-5) No change

(6) For fixed income securities that do not have a fixed schedule of payments, such as asset-backed securities, mortgage-backed securities, including residential mortgage-backed securities and commercial mortgage-backed securities, and structured securities, including collateralized debt obligations, amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies for each type of security.

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 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.

(7-14) No change

d. Going concern - No change

### Note 2 – Accounting Changes and Corrections of Errors

a. The following summarizes the corrections of prior year errors that have been recorded in surplus, net of tax:

	Six Months Ended June 30, 2016		
	Increase (Decrease) to:		Correction of Asset or Liability Balances
	Prior Year Net Income	Current Year Surplus	
Federal income tax receivable	\$ (19,361,709)	\$ (19,361,709)	\$ 19,361,709
Partnerships and limited liability companies	-	(5,286,659)	5,286,659
Fees and other income	(2,472,150)	(2,472,150)	2,472,150
Total	<u>\$ (21,833,859)</u>	<u>\$ (27,120,518)</u>	<u>\$ 27,120,518</u>

For the six months ended June 30, 2015, corrections of prior year errors were recorded in surplus:

	Six Months Ended June 30, 2015		
	Increase (Decrease) to:		Correction of Asset or Liability Balances
	Prior Year Net Income	Current Year Surplus	
Policyholders' reserves, net of tax	\$ 10,725,000	\$ 10,725,000	\$ (10,725,000)
Policyholders' benefits, net of tax	4,229,311	4,229,311	(4,229,311)
Net investment income	(1,546,875)	(1,546,875)	(1,546,875)
Total	<u>\$ 13,407,436</u>	<u>\$ 13,407,436</u>	<u>\$ (16,501,186)</u>

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

## NOTES TO FINANCIAL STATEMENTS

## b. Adoption of new accounting standards

In June, 2016, the NAIC adopted modifications to SSAP No. 92, *Postretirement Benefits Other than Pensions*, and SSAP No. 102, *Pensions*, which was effective on June 9, 2016. The modification allows that the spot curve yield curve method can be used as an alternative to the single weighted average discount rate to measure net periodic benefit cost. Under SSAPs No. 92 and 102, the most commonly used approach for pension plans is to develop a single weighted-average discount rate, which is determined at the pension plan measurement date based on the projected future benefit payments used in determining the pension obligation. The alternative approach (also referred to as the "Spot Rate" or disaggregated approach) measures the service cost and interest cost components of net periodic benefit cost by using individual (disaggregated) duration-specific spot (discount) rates derived from an acceptable high-quality corporate bond yield curve and matched with separate cash flows for each future year. The Company is currently reviewing the guidance to determine whether to avail itself to this alternative method in the fourth quarter, upon pension plan measurement.

**Note 3 – Business Combinations and Goodwill** - No change**Note 4 – Discontinued Operations** - No change**Note 5 – Investments**

a. Mortgage loans, including mezzanine real estate loans - No change

b. Debt restructuring - No change

c. Reverse mortgages - No change

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		57,985,071	-	2,201,092		55,783,979
c. Total first quarter	<u>\$</u>	<u>57,985,071</u>	<u>\$</u>	<u>2,201,092</u>	<u>\$</u>	<u>55,783,979</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		49,097,217	-	894,514		48,202,703
f. Total second quarter	<u>\$</u>	<u>49,097,217</u>	<u>\$</u>	<u>894,514</u>	<u>\$</u>	<u>48,202,703</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		-	-	-		-
i. Total third quarter	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</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		-	-	-		-
l. Total fourth quarter	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>
m. Annual Aggregate Total		<u>\$</u>	<u>-</u>	<u>\$</u>	<u>3,095,606</u>	

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

**NOTES TO FINANCIAL STATEMENTS**

- (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	Date of Financial Instrument Where Reported
126671UU8	\$ 30,843.19	\$ 30,347.96	\$ (495.23)	\$ 30,347.96	\$ 27,811.82	March 31, 2016
17307GKZ0	114,400.45	113,135.78	(1,264.67)	113,135.78	111,921.16	March 31, 2016
18974BAA7	466,325.47	430,445.97	(35,879.50)	430,445.97	421,446.58	March 31, 2016
18974BAN9	237,052.69	213,790.46	(23,262.23)	213,790.46	222,125.05	March 31, 2016
22943HAD8	5,057,583.09	4,776,999.74	(280,583.35)	4,776,999.74	3,447,059.39	March 31, 2016
466247BC6	20,209.32	19,688.63	(520.69)	19,688.63	20,079.24	March 31, 2016
55274SAM3	277,221.19	256,965.37	(20,255.82)	256,965.37	260,976.03	March 31, 2016
57643QAE5	4,663,518.83	4,642,799.60	(20,719.23)	4,642,799.60	4,586,797.71	March 31, 2016
585525FC7	31,899.50	31,602.82	(296.68)	31,602.82	30,654.61	March 31, 2016
5899292N7	517,738.49	510,348.31	(7,390.18)	510,348.31	511,562.29	March 31, 2016
589929N38	678,883.40	670,090.23	(8,793.17)	670,090.23	666,652.96	March 31, 2016
77277LAF4	25,446,697.15	24,419,541.90	(1,027,155.25)	24,419,541.90	34,016,670.90	March 31, 2016
77277LAH0	1,278,117.51	1,228,012.37	(50,105.14)	1,228,012.37	3,277,728.00	March 31, 2016
77277LAJ6	18,098,147.19	17,388,773.03	(709,374.16)	17,388,773.03	21,405,612.42	March 31, 2016
88157QAL2	493,785.09	486,131.81	(7,653.28)	486,131.81	1,007,051.00	March 31, 2016
9292276K7	572,648.05	565,304.85	(7,343.20)	565,304.85	564,247.57	March 31, 2016
07384MWF5	350,465.82	348,536.87	(1,928.95)	348,536.87	336,256.24	June 30, 2016
126671UU8	28,942.52	28,784.87	(157.65)	28,784.87	26,573.62	June 30, 2016
22541NMA4	310,649.58	310,078.85	(570.73)	310,078.85	310,904.52	June 30, 2016
22943HAD8	4,631,596.22	4,599,316.44	(32,279.78)	4,599,316.44	3,303,541.40	June 30, 2016
589929N38	339,683.28	335,332.39	(4,350.89)	335,332.39	330,467.22	June 30, 2016
77277LAF4	24,419,541.91	23,947,152.29	(472,389.62)	23,947,152.29	33,913,277.10	June 30, 2016
77277LAH0	1,228,012.37	1,204,968.98	(23,043.39)	1,204,968.98	3,268,749.60	June 30, 2016
77277LAJ6	17,388,773.03	17,062,531.31	(326,241.72)	17,062,531.31	21,340,549.98	June 30, 2016
79549ASM2	399,551.91	366,000.65	(33,551.26)	366,000.65	377,090.63	June 30, 2016
Totals	\$ 107,082,287.25	\$ 103,986,681.48	\$ (3,095,605.77)	\$ 103,986,681.48	\$ 133,785,807.04	

- (4) As of June 30, 2016, the gross unrealized losses and fair values for investments in structured and loan-backed securities for which an OTTI has not been recognized in earnings follow:

a. The aggregate amount of unrealized losses:	
1. Less than 12 months	\$ (78,593,149)
2. 12 months or longer	\$ (186,709,332)
b. The aggregate related fair value of securities with unrealized losses:	
1. Less than 12 months	\$ 2,753,119,980
2. 12 months or longer	\$ 5,685,916,821

- (5) No change

- e. Repurchase agreements:

(1-2) No change

- (3) The Company does not have any securities lending transactions administered by an affiliated agent.

(4-6) No change

- f. Real estate - No change

- g. Low income housing tax credit properties - No change

- h. Restricted assets - No change

- 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 reports derivative and repurchase agreement assets and liabilities as gross in the financial statements without offsetting.

- k. Structured notes - No change

**Note 6 – Joint Ventures, Partnerships and Limited Liability Companies** - No change

**Note 7 – Investment Income** – No change

**Note 8 – Derivative Instruments** - No change

**Note 9 – Income Taxes** – No change

**Note 10 – Information Concerning Parent, Subsidiaries and Affiliates**

- a-c. The Company received cash dividends, recorded in net investment income, from MMHLLC of \$200,000,000 in 2016 and \$150,000,000 through June 30, 2015.

## NOTES TO FINANCIAL STATEMENTS

MassMutual contributed capital of \$794,418,289 to MMHLLC through the six months ended June 30, 2016 and \$11,000,000 through the six months ended June 30, 2015. As part of the current year capital contributions, MassMutual contributed nine investments with a book value of \$670,164,387 to MMHLLC in 2016. This contribution was recorded at book value, and accordingly, there was no gain or loss recognized.

d-f. No change

- g. Subsidiaries of MassMutual Holding LLC's (MMHLLC) are involved in litigation and investigations arising in the ordinary course of their business, which seek 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 surplus for a particular period depending upon, among other factors, the size of the loss and the level of the Company's changes in surplus for the period.

The Company has no parent.

h-n. No change

### Note 11 – Debt

a. No change

b. Federal Home Loan Bank agreements

- (1) The Company is a member of the Federal Home Loan Bank of Boston (FHLB Boston). Through its membership, the Company has conducted business activity (borrowings) with the FHLB Boston. The Company uses these funding agreements with the FHLB Boston in an investment spread strategy, consistent with its other investment spread operations. The Company has determined the actual maximum borrowing capacity as \$2,000,000,000. The Company's unused capacity was \$900,000,000 as of June 30, 2016.

(2) FHLB Boston capital stock

a. Aggregate totals:

1. Current year:

	June 30, 2016		
	1 Total 2+3	2 General Account	3 Separate Account
(a) Membership stock - class A	\$ -	\$ -	-
(b) Membership stock - class B	25,000,000	25,000,000	-
(c) Activity stock	49,500,000	49,500,000	-
(d) Excess stock	-	-	-
(e) Aggregate total	<u>\$ 74,500,000</u>	<u>\$ 74,500,000</u>	<u>\$ -</u>
(f) Actual borrowing capacity as determined by the Insurer	\$ 2,000,000,000	\$ 2,000,000,000	\$ -

2. Prior year-end:

	December 31, 2015		
	1 Total 2+3	2 General Account	3 Separate Account
(a) Membership stock - class A	\$ -	\$ -	-
(b) Membership stock - class B	25,000,000	25,000,000	-
(c) Activity stock	49,500,000	49,500,000	-
(d) Excess stock	-	-	-
(e) Aggregate total	<u>\$ 74,500,000</u>	<u>\$ 74,500,000</u>	<u>\$ -</u>
(f) Actual borrowing capacity as determined by the Insurer	\$ 900,000,000	\$ 900,000,000	\$ -

b. Membership stock (class A and B) eligible and not eligible for redemption:

		Six Months Ended June 30, 2016					
Membership Stock	Current Year Total	Not Eligible for Redemption	Less Than 6 Months	6 Months to Less Than 1 Year	1 to Less Than 3 Years	3 to 5 Years	
1. Class A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2. Class B	25,000,000	25,000,000	-	-	-	-	

**NOTES TO FINANCIAL STATEMENTS**

## (3) Collateral pledged to FHLB:

## a. Amount pledged as of June 30, 2016:

## 1. Current year total general and separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,254,083,045	\$ 1,140,878,617	\$ 1,103,859,375

## 2. Current year general account:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,254,083,045	\$ 1,140,878,617	\$ 1,103,859,375

## 3. Current year separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ -	\$ -	\$ -

## 4. Prior year-end total general and separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,237,454,703	\$ 1,108,805,989	\$ 1,103,891,028

## b. Maximum amount pledged for the six months ended June 30, 2016:

## 1. Current year total general and separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,278,741,113	\$ 1,160,288,503	\$ 1,107,227,639

## 2. Current year general account:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,278,741,113	\$ 1,160,288,503	\$ 1,107,227,639

## 3. Current year separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ -	\$ -	\$ -

## 4. Prior year-end total general and separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,272,134,217	\$ 1,133,723,274	\$ 1,107,271,444

## NOTES TO FINANCIAL STATEMENTS

## (4) Borrowing from FHLB:

## a. Amount:

## 1. Current year:

	June 30, 2016			
	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	1,103,859,375	1,103,859,375	-	1,103,859,375
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 1,103,859,375</u>	<u>\$ 1,103,859,375</u>	<u>\$ -</u>	<u>\$ 1,103,859,375</u>

## 2. Prior Year-end:

	December 31, 2015			
	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	1,103,891,028	1,103,891,028	-	1,103,891,028
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 1,103,891,028</u>	<u>\$ 1,103,891,028</u>	<u>\$ -</u>	<u>\$ 1,103,891,028</u>

## b. Maximum Amount:

	Six Months Ended June 30, 2016		
	1 Total 2+3	2 General Account	3 Separate Account
1. Debt	\$ -	\$ -	\$ -
2. Funding	1,107,227,639	1,107,227,639	-
3. Other	-	-	-
4. Aggregate	<u>\$ 1,107,227,639</u>	<u>\$ 1,107,227,639</u>	<u>\$ -</u>

## c. FHLB - Prepayment Obligations:

Does the company have prepayment obligations under the following arrangements (YES/NO)?

- |                       |     |
|-----------------------|-----|
| 1. Debt               | N/A |
| 2. Funding agreements | NO  |
| 3. Other              | N/A |

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

## a. Defined Benefit Plan

(1) The Company provides multiple benefit plans including retirement plans and life and health benefits to employees, certain employees of unconsolidated subsidiaries, agents and retirees.

(2-3) No change

(4) Components of net periodic benefit cost:

	Six Months Ended June 30,					
	2016	2015	2016		2015	2015
			Pension Benefits		Postretirement Benefits	
					Special or Contractual Benefits Per SSAP No 11	
a. Service cost	\$ 42,587,519	\$ 35,769,784	\$ 5,100,000	\$ 4,429,000	\$ 1,287,500	\$ 1,299,500
b. Interest cost	56,554,892	50,801,496	5,850,000	7,175,000	162,500	50,500
c. Expected return on plan assets	(71,991,256)	(77,089,969)	(50,000)	(50,000)	-	-
d. Transition asset or obligation	-	-	-	-	-	-
e. Gains and losses	35,142,700	32,587,348	1,600,000	1,426,500	-	-
f. Prior service cost or (credit)	1,561,342	1,807,322	(2,750,000)	2,226,000	-	-
g. Gain or loss recognized due to settlement or curtailment	-	-	-	-	-	-
h. Total net periodic benefit cost	<u>\$ 63,855,197</u>	<u>\$ 43,875,981</u>	<u>\$ 9,750,000</u>	<u>\$ 15,206,500</u>	<u>\$ 1,450,000</u>	<u>\$ 1,350,000</u>

(5-21) No change

b-j. No change

## NOTES TO FINANCIAL STATEMENTS

### **Note 13 – Capital and Surplus, Shareholders' Dividend Restrictions and Quasi-Reorganizations** - No change

### **Note 14 – Liabilities, Contingencies and Assessments**

a. Contingent commitments

(1) In the normal course of business, the Company enters into letter of credit arrangements. As of June 30, 2016, the Company had approximately \$116,353,835 of outstanding letter of credit arrangements and \$159,498,981 as of December 31, 2015. As of June 30, 2016 and December 31, 2015, the Company did not have any funding requests attributable to these letter of credit arrangements.

b. Assessments - No change

c. Gain contingencies - No change

d. Claims related to extra contractual obligations - No change

e. 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.

In 2008, the Company and MMHLLC were named as defendants in several lawsuits filed in federal and state courts in Colorado, Massachusetts, New Mexico, New York and Washington by investors seeking to recover investments they allegedly lost as a result of the "Ponzi" scheme run by Bernard L. Madoff through his company, Bernard L. Madoff Investment Securities, LLC. Certain of these lawsuits also named Tremont Group Holdings, Inc. and certain of its affiliates, and certain of their respective current or former officers and directors, as defendants. The plaintiffs alleged a variety of state law and federal security claims against the defendants. In 2015, the companies entered into settlement agreements and paid \$38,500,000 in connection with these agreements. The Company recorded the loss as a change in net unrealized capital losses, net of tax, in the 2015 Statutory Statements of Changes in Surplus.

In 2009, several lawsuits were filed as putative class actions and later consolidated before the federal district court in Colorado in connection with the investment performance of Oppenheimer Rochester California Municipal Fund (the California Fund Suit). This fund was advised by OppenheimerFunds, Inc. (OFI) and distributed by its subsidiary OppenheimerFunds Distributor, Inc. (OFDI). The plaintiffs in the California Fund Suit asserted claims against the Company, OFI, OFDI and certain present and former trustees and officers of the fund under federal securities laws and allege, among other things, the disclosure documents of the fund contained misrepresentations and omissions, that the investment policies of the fund were not followed, and that the fund and the other defendants violated federal securities laws and regulations and certain state laws. Plaintiffs filed an amended complaint and defendants filed a motion to dismiss. In 2011, the district court issued an order that granted in part and denied in part the defendants' motion to dismiss. In March 2015, the district court granted the plaintiffs' motion to certify a class and to appoint class representatives and class counsel. In December 2015, the appeals court denied defendants' petition to appeal the district court's class certification order. The defendants believe they have substantial defenses and will continue to vigorously defend themselves in this action. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this suit.

In 2009, the Company was named as a defendant in a lawsuit filed in North Carolina state court related to certain losses in a bank owned life insurance (BOLI) policy issued by the Company. The plaintiff alleges, among other things, fraud, breach of contract and breach of fiduciary duty claims against the Company, and it seeks to recover losses arising from investments pursuant to the BOLI policy. The parties have completed discovery and are preparing for trial. In May 2015, the plaintiff voluntarily dismissed its complaint and refiled the case. The Company believes it has substantial defenses and will continue to vigorously defend itself in this action. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this suit.

In 2010, Christina Chavez (Chavez) filed a putative class action complaint in California state court against the Company. Chavez alleges that the Company breached its obligations to its term life policyholders in California by not paying dividends on those policies. The parties are engaged in active discovery. In 2014, the parties participated in a mediation of their dispute, which did not result in a settlement. In July 2015, the judge certified a subclass consisting of one of twenty-six potential term products at issue in this case. All remaining subclasses were dismissed without prejudice. The case is expected to proceed to trial in August 2016. The Company believes it has substantial defenses and will continue to vigorously defend itself in this action. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this claim.

In 2012, Karen Bacchi filed a putative class action complaint against the Company in federal court in Massachusetts alleging that the Company breached its contracts by allegedly failing to distribute surplus in excess of the statutorily prescribed limit. In 2015, the court denied the Company's motion to dismiss. In 2016, fact discovery was completed. The Company believes that it has substantial defenses and will continue to vigorously defend itself in this action. No reasonable estimate can be made at this time regarding the potential liability, if any, or the amount or range of any loss that may result from this claim.

In 2013, seven participants in the MassMutual Thrift Plan (the Thrift Plan) filed a putative class action complaint in federal court in Massachusetts. The complaint alleged, among other things, that the Company, the Investment Fiduciary Committee, the Thrift Plan Administrative Committee and individually named "fiduciaries" breached their duties by allowing the Thrift Plan to pay excessive fees and by engaging in self-dealing. In June 2016, the parties reached a tentative settlement agreement, which has been preliminarily approved by the court. The Company expects final court approval by the end of the year. The final settlement is not expected to have a significant financial impact on the Company.

In January 2016, Deborah Bishop-Bristol (Bishop) filed a putative class action complaint against the Company in federal court in Connecticut. The lawsuit alleges that the Company breached its fiduciary duty by controlling the crediting rate, and therefore the compensation earned on the stable value products. Further, the complaint alleges that the Company failed to adequately disclose the pricing spread and accepted excessive fees for investment, management and administrative services. In April 2016, the court granted the Company's motion to transfer the case to the federal court in Massachusetts. The Company believes that it has substantial defenses and will vigorously defend itself in this action. No reasonable estimate can be made regarding the potential liability, if any, or the amount or range of any loss that may result from this claim.

f. 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



## NOTES TO FINANCIAL STATEMENTS

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** - No change

**Note 16 – Information About Financial Instruments With Off-Balance Sheet Risk and Financial Instruments With Concentrations of Credit Risk** - No change

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

- a. Transfers of receivables reported as sales - No change
- b. Transfer and Servicing of Financial Assets:
  - (1) No change
  - (2) The Company did not have any servicing assets or liabilities in 2016 or 2015.
  - (3) No change
  - (4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2016 or 2015.
  - (5-7) No change
- c. Wash sales:
  - (1) In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days 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 through the second quarter ended June 30, 2016 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** - No change

**Note 19 – Direct Premium Written/Produced By Managing General Agents/Third Party Administrators** - No change

**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.

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 London Interbank Offered Rate (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.

## NOTES TO FINANCIAL STATEMENTS

The fair value of group annuity contracts and other deposits is determined by multiplying the book value of the contract by an average market value adjustment factor. The market value adjustment factor is directly related to the difference between the book value of client liabilities and the present value of installment payments discounted at current market value yields. The market value yield is measured by the Barclay's Aggregate Bond Index, subject to certain adjustments, and the installment period is equivalent to the duration of the Company's invested asset portfolio.

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 contracts with longer durations, guaranteed interest contracts and 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 receiving dividends are accumulated at the average minimum guaranteed rate and discounted at the risk-free rate. All others are valued using cash flow projections from the Company's asset-liability management analysis.

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

	June 30, 2016			
	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
<b>Bonds:</b>				
Special revenue	\$ -	\$ 1,229,877	\$ -	\$ 1,229,877
Industrial and miscellaneous	-	6,970,349	66,866,480	73,836,829
Parent, subsidiaries and affiliates	-	63,063,546	46,962,389	110,025,935
Preferred stocks	-	-	14,088,006	14,088,006
Common stock - subsidiaries and affiliates	548,605,132	31,560,139	57,666,851	637,832,122
Common stock - unaffiliated	540,746,672	519,934,385	184,793,561	1,245,474,618
<b>Derivatives:</b>				
Interest rate swaps	-	14,192,138,768	-	14,192,138,768
Options	-	749,533,539	284,170	749,817,709
Currency swaps	-	844,613,091	-	844,613,091
Forward contracts	-	140,024,084	-	140,024,084
Credit default swaps	-	8,507	-	8,507
Separate account assets	39,192,553,593	22,401,870,690	763,306,815	62,357,731,098
Total financial assets carried at fair value	<u>\$ 40,281,905,397</u>	<u>\$ 38,950,946,975</u>	<u>\$ 1,133,968,272</u>	<u>\$ 80,366,820,644</u>
<b>Financial liabilities:</b>				
<b>Derivatives:</b>				
Interest rate swaps	\$ -	\$ 11,623,466,862	\$ -	\$ 11,623,466,862
Options	-	5,597,600	-	5,597,600
Currency swaps	-	22,508,747	-	22,508,747
Forward contracts	-	28,148,057	-	28,148,057
Credit default swaps	-	1,326,566	-	1,326,566
Total financial liabilities carried at fair value	<u>\$ -</u>	<u>\$ 11,681,047,832</u>	<u>\$ -</u>	<u>\$ 11,681,047,832</u>

For the six months ended June 30, 2016, there were no significant transfers between Level 1 and Level 2.

## NOTES TO FINANCIAL STATEMENTS

	December 31, 2015			
	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
<b>Bonds:</b>				
States, territories and possessions	\$ -	\$ 2,025,290	\$ -	\$ 2,025,290
Special revenue	-	4,387,512	-	4,387,512
Industrial and miscellaneous	-	18,406,412	21,822,270	40,228,682
Parent, subsidiaries and affiliates	-	46,645,754	44,987,196	91,632,950
Preferred stocks	-	3,335,616	2,433,928	5,769,544
Common stock - subsidiaries and affiliates	307,722,508	93,756,526	39,651,503	441,130,537
Common stock - unaffiliated	444,993,908	515,494,915	179,143,468	1,139,632,291
Separate account assets	39,355,125,013	20,305,097,915	725,326,815	60,385,549,743
<b>Derivatives:</b>				
Interest rate swaps	-	8,032,773,588	-	8,032,773,588
Options	-	622,038,103	-	622,038,103
Currency swaps	-	536,223,936	-	536,223,936
Forward contracts	-	54,705,003	-	54,705,003
Credit default swaps	-	2,109,518	-	2,109,518
<b>Total financial assets carried at fair value</b>	<b>\$ 40,107,841,429</b>	<b>\$ 30,237,000,088</b>	<b>\$ 1,013,365,180</b>	<b>\$ 71,358,206,697</b>
<b>Financial liabilities:</b>				
<b>Derivatives:</b>				
Interest rate swaps	\$ -	\$ 5,796,878,600	\$ -	\$ 5,796,878,600
Options	-	7,137,990	-	7,137,990
Currency swaps	-	4,362,189	-	4,362,189
Forward contracts	-	12,530,171	-	12,530,171
Credit default swaps	-	1,971,711	-	1,971,711
<b>Total financial liabilities carried at fair value</b>	<b>\$ -</b>	<b>\$ 5,822,880,661</b>	<b>\$ -</b>	<b>\$ 5,822,880,661</b>

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

2. The following presents changes in the Company's Level 3 financial instruments that are carried at fair value:

	Balance as of		Transfers <sup>(1)</sup>		Gains (Losses) in		Gains (Losses) in		Balance as of	
	01/01/2016	In	Out	Net Income	Surplus	Purchases	Issuances	Sales	Settlements	06/30/2016
<b>Financial assets:</b>										
<b>Bonds:</b>										
Industrial and miscellaneous	\$ 21,822,270	\$ 52,139,326	\$ (400,000)	\$ -	\$ (4,791,222)	\$ -	\$ 20,808	\$ -	\$ (1,924,702)	\$ 66,866,480
Parent, subsidiaries and affiliates	44,987,196	8,364,850	-	(359,605)	(6,389,657)	1,953,045	(1,593,440)	-	-	46,962,389
Preferred stock	2,433,928	-	(1,565,363)	-	(39,448)	13,258,889	-	-	-	14,088,006
Common stock - subsidiaries and affiliates	39,651,503	15,896,989	-	-	1,952,254	-	166,105	-	-	57,666,851
Common stock - unaffiliated	179,143,468	-	-	469,691	4,196,854	2,660,598	-	(1,677,050)	-	184,793,561
<b>Derivatives:</b>										
Options	-	284,170	-	-	-	-	-	-	-	284,170
Separate account assets	725,326,815	4,900,000	196,000	(7,404,011)	-	100,849,193	-	(57,667,942)	(2,893,240)	763,306,815
<b>Total financial assets</b>	<b>\$ 1,013,365,180</b>	<b>\$ 81,585,335</b>	<b>\$ (1,769,363)</b>	<b>\$ (7,293,925)</b>	<b>\$ (5,071,219)</b>	<b>\$ 118,721,725</b>	<b>\$ (1,406,527)</b>	<b>\$ (59,344,992)</b>	<b>\$ (4,817,942)</b>	<b>\$ 1,133,968,272</b>

<sup>(1)</sup>Transfers include assets that are either no longer carried at fair value, or have just begun to be carried at fair value, such as assets with no level changes but change in lower of cost or market carrying basis. It, also, includes assets that are either no longer carried at fair value, or have just begun to be carried at fair value, such as assets with no level changes but a change in lower of cost or market carrying basis.

## NOTES TO FINANCIAL STATEMENTS

	Balance		Gains		Gains					Balance
	as of		(Losses) in		(Losses) in					as of
	01/01/2015		Net Income	Surplus	Purchases	Issuances	Sales	Settlements	12/31/2015	
Financial assets:										
Bonds:										
Industrial and miscellaneous	\$ 109,015,810	\$ -	\$ (43,673,606)	\$ (40,000,056)	\$ 1,249,215	\$ -	\$ 3,166,985	\$ (4,183,244)	\$ (3,752,834)	\$ 21,822,270
Parent, subsidiaries, and affiliates	78,490,924	-	(26,558,966)	(368,793)	(5,108,982)	-	-	-	(1,466,987)	44,987,196
Preferred Stock	3,496,368	-	(1,184,136)	-	121,696	-	-	-	-	2,433,928
Common stock - subsidiaries										
and affiliates	81,063,876	3,552,769	-	8,120,543	(28,561,294)	460,000,237	35,064,941	(493,340,895)	(26,248,674)	39,651,503
Common stock - unaffiliated	159,740,306	-	(4,650,981)	10,561,496	(10,797,059)	36,764,277	7,234	(11,955,229)	(526,576)	179,143,468
Separate account assets	599,966,983	-	-	25,699,837	-	168,511,837	-	(68,227,094)	(624,748)	725,326,815
Total financial assets	\$ 1,031,774,267	\$ 3,552,769	\$ (76,067,689)	\$ 4,013,027	\$ (43,096,424)	\$ 665,276,351	\$ 38,239,160	\$ (577,706,462)	\$ (32,619,819)	\$ 1,013,365,180

<sup>(1)</sup>Transfers include assets that are either no longer carried at fair value, or have just begun to be carried at fair value, such as assets with no level changes but a change in lower of cost or market carrying basis.

3. 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. There are no financial assets or liabilities classified as Level 3 in 2016 and 2015.

#### 4. Valuation Techniques and Inputs

The Company determines the fair value of its investments using primarily the market approach or the income approach. The 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 ratings, 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 issuances 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 on 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 (OIS) 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.

## NOTES TO FINANCIAL STATEMENTS

c. The following presents a summary of the carrying values and fair values of the Company's financial instruments:

	June 30, 2016					
	Aggregate Fair Value	Admitted Assets	Level 1	Level 2	Level 3	Not Practicable (Carrying Value)
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 10,158,721,072	\$ 8,942,121,595	\$ -	\$ 10,154,217,797	\$ 4,503,275	\$ -
All other governments	928,572,612	866,692,497	-	853,592,263	74,980,350	-
States, territories and possessions	751,079,039	662,834,757	-	751,079,039	-	-
Political subdivisions	549,060,462	480,542,178	-	546,538,344	2,522,118	-
Special revenue	6,438,119,737	5,390,784,569	-	6,368,812,993	69,306,744	-
Industrial and miscellaneous	65,114,317,464	61,892,923,855	-	39,145,437,571	25,968,879,893	-
Parent, subsidiaries and affiliates	6,590,761,843	6,326,106,378	-	659,110,540	5,931,651,303	-
Preferred stocks	484,042,178	492,953,162	12,764,294	31,160,794	440,117,090	-
Common stocks - subsidiaries and affiliates <sup>(1)</sup>	637,832,122	637,832,122	548,605,132	31,560,139	57,666,851	-
Common stocks - unaffiliated	1,245,474,618	1,245,474,618	540,746,672	519,934,385	184,793,561	-
Mortgage loans - commercial	20,968,608,589	20,042,544,341	-	-	20,968,608,589	-
Mortgage loans - residential	1,661,578,995	1,667,187,449	-	-	1,661,578,995	-
Cash, cash equivalents and short-term investments	2,917,662,596	2,917,662,596	411,746,245	2,505,916,351	-	-
Derivatives:						
Interest rate swaps	16,023,272,187	14,192,138,768	-	16,023,272,187	-	-
Options	749,817,709	749,817,709	-	749,533,539	284,170	-
Currency swaps	844,613,091	844,613,091	-	844,613,091	-	-
Forward contracts	140,024,084	140,024,084	-	140,024,084	-	-
Credit default swaps	26,080,720	22,941,815	-	26,080,720	-	-
Separate account assets	62,357,731,098	62,357,731,098	39,192,553,593	22,401,870,690	763,306,815	-
Financial liabilities:						
Repurchase agreements	4,857,426,700	4,857,426,700	-	4,857,426,700	-	-
Commercial paper and other borrowed money	287,388,074	287,388,074	-	249,953,125	37,434,949	-
Guaranteed interest contracts	6,400,753,602	6,320,622,101	-	-	6,400,753,602	-
Group annuity contracts and other deposits	19,247,162,048	18,515,979,859	-	-	19,247,162,048	-
Individual annuity contracts	8,879,991,091	6,915,106,028	-	-	8,879,991,091	-
Supplementary contracts	1,129,506,236	1,128,393,865	-	-	1,129,506,236	-
Derivatives:						
Interest rate swaps	11,623,466,862	11,623,466,862	-	11,623,466,862	-	-
Options	5,597,600	5,597,600	-	5,597,600	-	-
Currency swaps	22,508,747	22,508,747	-	22,508,747	-	-
Forward contracts	28,148,057	28,148,057	-	28,148,057	-	-
Credit default swaps	9,274,066	8,470,303	-	9,274,066	-	-

<sup>(1)</sup> Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had a statutory carrying value of \$10,120,902,321.

## NOTES TO FINANCIAL STATEMENTS

December 31, 2015

	Aggregate		Admitted			Not Practicable (Carrying Value)
	Fair Value	Assets	Level 1	Level 2	Level 3	
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 8,526,297,862	\$ 8,015,146,491	\$ -	\$ 8,521,541,570	\$ 4,756,292	\$ -
All other governments	762,254,457	761,981,449	-	690,626,966	71,627,491	-
States, territories and possessions	775,665,283	726,674,452	-	775,665,283	-	-
Political subdivisions	503,245,574	468,247,496	-	503,245,574	-	-
Special revenue	6,060,747,491	5,414,143,402	-	6,024,457,987	36,289,504	-
Industrial and miscellaneous	58,259,806,990	57,983,900,822	-	35,009,485,843	23,250,321,147	-
Parent, subsidiaries and affiliates	6,340,300,045	6,176,502,009	-	645,604,264	5,694,695,781	-
Preferred stocks	520,240,389	532,949,649	12,936,825	30,465,429	476,838,135	-
Common stock - subsidiaries and affiliates <sup>(1)</sup>	441,130,537	441,130,537	307,722,508	93,756,526	39,651,503	-
Common stock - unaffiliated	1,139,632,291	1,139,632,291	444,993,908	515,494,915	179,143,468	-
Mortgage loans - commercial	20,815,373,187	20,286,922,792	-	-	20,815,373,187	-
Mortgage loans - residential	1,683,836,408	1,720,806,602	-	-	1,683,836,408	-
Cash, cash equivalents and short-term investments	3,048,645,110	3,048,645,110	174,097,018	2,874,548,092	-	-
Derivatives:						
Interest rate swaps	8,553,869,196	8,032,773,588	-	8,553,869,196	-	-
Options	622,038,103	622,038,103	-	622,038,103	-	-
Currency swaps	536,223,936	536,223,936	-	536,223,936	-	-
Forward contracts	54,705,003	54,705,003	-	54,705,003	-	-
Credit default swaps	12,936,195	22,337,494	-	12,936,195	-	-
Separate account assets	60,385,549,743	60,385,549,743	39,355,125,013	20,305,097,915	725,326,815	-
Financial liabilities:						
Repurchase agreements	5,130,020,438	5,130,020,438	-	5,130,020,438	-	-
Commercial paper and other borrowed money	276,817,818	276,817,818	-	249,961,873	26,855,945	-
Guaranteed investment contracts and other deposits	5,933,135,866	5,944,199,556	-	-	5,933,135,866	-
Individual annuity contracts	18,667,420,320	17,939,042,206	-	-	18,667,420,320	-
Individual annuity contracts	8,025,472,790	6,501,371,583	-	-	8,025,472,790	-
Supplementary contracts	1,094,675,561	1,093,629,530	-	-	1,094,675,561	-
Derivatives:						
Interest rate swaps	5,839,065,952	5,796,878,600	-	5,839,065,952	-	-
Options	7,137,990	7,137,990	-	7,137,990	-	-
Currency swaps	4,362,189	4,362,189	-	4,362,189	-	-
Forward contracts	12,530,171	12,530,171	-	12,530,171	-	-
Credit default swaps	19,978,040	19,431,763	-	19,978,040	-	-

<sup>(1)</sup>Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had statutory carrying values of \$7,519,199,138.

- d. For the six months ended June 30, 2016, the Company had no investments where it was not practicable to estimate fair value.

**Note 21 – Other Items**

- a. Unusual or infrequent items - No change
- b. Troubled debt restructuring - No change
- c. Other disclosures and unusual items:

Common stocks of unconsolidated subsidiaries, primarily MMHLLC, are accounted for using the statutory equity method. The Company accounts for the value of MMHLLC at its underlying U.S. generally accepted accounting principles equity value adjusted to remove certain nonadmitted and intangible assets, as well as a portion of its noncontrolling interests (NCI) and appropriated retained earnings, after consideration of MMHLLC's fair value and the Company's capital levels. The Division has affirmed the statutory recognition of the Company's application of the NCI guidelines in MMHLLC's statutory carrying value. However, the Company has limited this recognition to \$2,583,000,000 as of June 30, 2016 and \$2,600,000,000 as of December 31, 2015. The current fair value of MMHLLC remains significantly greater than its statutory carrying value.

**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, currency exchange risk and credit risk. The combined impact of these risks could have a material, adverse effect on the Company's financial statements or result in operating losses in future periods. The Company employs the use of reinsurance, portfolio diversification, asset/liability management processes and other risk management techniques to mitigate the impact of these risks. This condensed risks and uncertainties disclosure should be read in conjunction with the disclosure in the Company's 2015 Annual Statement.

**Insurance and underwriting risks**

The Company prices its products based on estimated benefit payments reflecting assumptions with respect to mortality, morbidity, 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. For participating whole life products, the Company's dividends to policyholders primarily reflect the difference between actual investment, mortality, expense and persistency experience and the experience embedded in the whole life premiums and guaranteed elements. The Company also reinsures certain life insurance and other long-term care insurance policies to mitigate the impact of its underwriting risk.

## NOTES TO FINANCIAL STATEMENTS

### 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.

### Currency exchange risk

The Company has currency risk due to its non-U.S. dollar investments and medium-term notes along with its indirect international operations. The Company mitigates currency risk through the use of cross-currency swaps and forward contracts. Cross-currency swaps are used to minimize currency risk for certain non-U.S. dollar assets and liabilities through a pre-specified exchange of interest and principal. Forward contracts are used to hedge movements in exchange rates.

### 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 global capital markets or in particular 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. Global market factors, including interest rates, credit spread quality, equity prices, real estate markets, foreign currency exchange rates, 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.

Significant volatility in the financial markets, and government actions taken in response, may exacerbate some of the risks the Company faces. The Company holds investments in energy and certain other commodity sectors, which have experienced similar overall market volatility and declines. With the continued weaker economic outlook in these sectors, there may be an increase in reported default rates or potential downgrades to the ratings of companies exposed to these sectors. In addition, concerns over the solvency of certain countries and sovereignties and the entities that have significant exposure to their debt have created market volatility. This volatility may continue to affect the performance of various asset classes until there is an ultimate resolution of the sovereign debt related concerns.

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. Business interruption insurance recoveries - No change
- e. State transferrable tax credits - No change
- f. Subprime mortgage related risk exposure:
  - (1) No change
  - (2) No change

**NOTES TO FINANCIAL STATEMENTS**

- (3) 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:

	June 30, 2016			Six Months Ended June 30, 2016
	Actual Cost	Carrying Value	Fair Value	OTTI
Alt-A:				
a. Residential mortgage-backed securities	\$ 526,941,071	\$ 383,188,086	\$ 459,836,847	\$ (374,505)
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	39,131,267	27,365,606	32,863,943	(651)
f. Other assets	-	-	-	-
g. Total	<u>\$ 566,072,338</u>	<u>\$ 410,553,692</u>	<u>\$ 492,700,790</u>	<u>\$ (375,156)</u>

	June 30, 2016			Six Months Ended June 30, 2016
	Actual Cost	Carrying Value	Fair Value	OTTI
Subprime:				
a. Residential mortgage-backed securities	\$ 471,207,181	\$ 376,985,743	\$ 435,400,130	\$ (41,857)
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	2,739,686	-	215,700	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	23,522,531	17,978,860	19,228,954	(11,949)
f. Other assets	-	-	-	-
g. Total	<u>\$ 497,469,398</u>	<u>\$ 394,964,603</u>	<u>\$ 454,844,784</u>	<u>\$ (53,806)</u>

\* The Company's SCA, C.M. Life Insurance Company ("C.M. Life"), has investments in Alt-A and subprime mortgages, as does C.M. Life's SCA, MML Bay State Life Insurance Company ("MML Bay State"). These investments comprise less than 1% of the Company's invested assets.

	December 31, 2015			Year Ended December 31, 2015
	Actual Cost	Carrying Value	Fair Value	OTTI
Alt-A:				
a. Residential mortgage-backed securities	\$ 583,018,752	\$ 426,014,622	\$ 512,932,882	\$ (101,892)
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	43,319,861	30,323,549	36,560,464	(6,257)
f. Other assets	-	-	-	-
g. Total	<u>\$ 626,338,613</u>	<u>\$ 456,338,171</u>	<u>\$ 549,493,346</u>	<u>\$ (108,149)</u>

	December 31, 2015			Year Ended December 31, 2015
	Actual Cost	Carrying Value	Fair Value	OTTI
Subprime:				
a. Residential mortgage-backed securities	\$ 525,983,338	\$ 425,091,644	\$ 492,047,313	\$ (16,036)
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	2,739,686	-	215,700	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	26,673,128	20,749,354	22,339,498	(4,934)
f. Other assets	-	-	-	-
g. Total	<u>\$ 555,396,152</u>	<u>\$ 445,840,998</u>	<u>\$ 514,602,511</u>	<u>\$ (20,970)</u>

\* The Company's SCA, C.M. Life, has investments in Alt-A and subprime mortgages, as does C.M. Life's SCA, MML Bay State. These investments comprise less than 1% of the Company's invested assets.

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

g. Retained asset accounts - No change



## NOTES TO FINANCIAL STATEMENTS

### **Note 22 – Events Subsequent**

Management of the Company has evaluated subsequent events through August 12, 2016, the date the financial statements were available to be issued.

On July 1, 2016, the Company acquired the MetLife Premier Client Group (MPCG), a U.S. retail advisor force, which includes an affiliated broker dealer, MetLife Securities, Inc. (MSI). The advisor force includes more than 40 local sales and advisory operations and approximately 4,000 advisors across the country, which expands the Company's existing Career Agency System to more than 9,200 financial professionals. The purchase of MSI was accounted for under the statutory purchase method, classified as investments in common stocks – subsidiaries and affiliates at a cost of \$125,187,472 and resulted in the recognition of statutory goodwill of \$36,660,908. The Company also paid \$160,465,085 of cash to acquire the remaining MPCG assets of \$195,644,398 and liabilities of \$35,048,475. The remaining MPCG assets include \$173,769,801 of assets that are nonadmitted.

No other events have occurred subsequent to the date of the statement of financial position and before the date of evaluation that would require disclosure.

### **Note 23 – Reinsurance**

- a. Ceded Reinsurance Report:
  - Section 1 - General Interrogatories – No change
  - Section 2 - Ceded Reinsurance Report - Part A - No change
  - Section 3 - Ceded Reinsurance Report - Part B - No change

b-g. No change

**Note 24 – Retrospectively Rated Contracts and Contracts Subject to Redetermination** - No change

### **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** - No change

**Note 27 – Structured Settlements** - No change

**Note 28 – Health Care Receivables** - No change

**Note 29 – Participating Policies** - No change

**Note 30 – Premium Deficiency Reserves** - No change

**Note 31 – Reserves for Life Contracts and Annuity Contracts** - No change

**Note 32 – Analysis of Annuity Actuarial Reserves and Deposit Type Liabilities by Withdrawal Characteristics** - No change

**Note 33 – Premium and Annuity Considerations Deferred and Uncollected** - No change

**Note 34 – Separate Accounts** - No change

**Note 35 – Loss/Claim Adjustment Expenses** - No change

# GENERAL INTERROGATORIES

## PART 1 - COMMON INTERROGATORIES

### GENERAL

- 1.1 Did the reporting entity experience any material transactions requiring the filing of Disclosure of Material Transactions with the State of Domicile, as required by the Model Act? ..... Yes [ ] No [ X ]
- 1.2 If yes, has the report been filed with the domiciliary state? ..... Yes [ ] No [ ]
- 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 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 and 1A.
- 3.2 Have there been any substantial changes in the organizational chart since the prior quarter end? ..... Yes [ ] No [ X ]
- 3.3 If the response to 3.2 is yes, provide a brief description of those changes.
- 4.1 Has the reporting entity been a party to a merger or consolidation during the period covered by this statement? ..... Yes [ ] No [ X ]
- 4.2 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

5. If the reporting entity is subject to a management agreement, including third-party administrator(s), managing general agent(s), attorney-in-fact, or similar agreement, have there been any significant changes regarding the terms of the agreement or principals involved? ..... Yes [ ] No [ X ] N/A [ ]  
If yes, attach an explanation.
- 6.1 State as of what date the latest financial examination of the reporting entity was made or is being made. .... 12/31/2014
- 6.2 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
- 6.3 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). .... 06/30/2016
- 6.4 By what department or departments?  
Commonwealth of Massachusetts Division of Insurance
- 6.5 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 ]
- 6.6 Have all of the recommendations within the latest financial examination report been complied with? ..... Yes [ X ] No [ ] N/A [ ]
- 7.1 Has this 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 ]
- 7.2 If yes, give full information:
- 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
Babson Capital Securities, LLC	Boston, MA				YES
Baring International Investment Limited	London, UK				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
OppenheimerFunds Distributor, Inc.	New York, NY				YES
Society of Grownups, LLC	Springfield, MA				YES
The MassMutual Trust Company, FSB	Enfield, CT		YES		

**GENERAL INTERROGATORIES**

- 9.1 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.
- 9.11 If the response to 9.1 is No, please explain:
- 9.2 Has the code of ethics for senior managers been amended? ..... Yes [ X ] No [ ]
- 9.21 If the response to 9.2 is Yes, provide information related to amendment(s).  
The Code was revised in June 2016. The revisions to the Code included updating: the company records principle to reflect updated company policy terminology and references to the Compliance & Ethics department to reflect recent reorganization.
- 9.3 Have any provisions of the code of ethics been waived for any of the specified officers? ..... Yes [ ] No [ X ]
- 9.31 If the response to 9.3 is Yes, provide the nature of any waiver(s).

**FINANCIAL**

- 10.1 Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement? ..... Yes [ X ] No [ ]
- 10.2 If yes, indicate any amounts receivable from parent included in the Page 2 amount: ..... \$ ..... 0

**INVESTMENT**

- 11.1 Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or otherwise made available for use by another person? (Exclude securities under securities lending agreements.) ..... Yes [ X ] No [ ]
- 11.2 If yes, give full and complete information relating thereto:  
Repurchase agreements, Letter stock or securities restricted as to sale - excluding FHLB Capital Stock, FHLB Capital Stock, On deposit with states, pledged as collateral - excluding collateral pledged to an FHLB and Pledged as collateral to FHLB - including assets backing funding agreements
12. Amount of real estate and mortgages held in other invested assets in Schedule BA: ..... \$ ..... 1,463,807,573
13. Amount of real estate and mortgages held in short-term investments: ..... \$ .....
- 14.1 Does the reporting entity have any investments in parent, subsidiaries and affiliates? ..... Yes [ X ] No [ ]
- 14.2 If yes, please complete the following:
- |   | 1<br>Prior Year-End<br>Book/Adjusted<br>Carrying Value | 2<br>Current Quarter<br>Book/Adjusted<br>Carrying Value |
|---|--|---|
| 14.21 Bonds .....   | \$ 6,176,512,151                                       | \$ 6,326,279,959  |
| 14.22 Preferred Stock .....   | \$ .....   | \$ .....  |
| 14.23 Common Stock .....  | \$ 7,503,525,833                                       | \$ 10,121,119,217                                       |
| 14.24 Short-Term Investments .....  | \$ .....   | \$ .....  |
| 14.25 Mortgage Loans on Real Estate .....   | \$ .....   | \$ .....  |
| 14.26 All Other .....   | \$ 4,213,299,770                                       | \$ 3,592,307,325  |
| 14.27 Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26) ..... | \$ 17,893,337,754                                      | \$ 20,039,706,501                                       |
| 14.28 Total Investment in Parent included in Lines 14.21 to 14.26 above .....                       | \$ .....   | \$ .....  |
- 15.1 Has the reporting entity entered into any hedging transactions reported on Schedule DB? ..... Yes [ X ] No [ ]
- 15.2 If yes, has a comprehensive description of the hedging program been made available to the domiciliary state? ..... Yes [ X ] No [ ]  
If no, attach a description with this statement.

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company  
**GENERAL INTERROGATORIES**

16. For the reporting entity's security lending program, state the amount of the following as of the current statement date:
- 16.1 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 .....\$ .....
- 16.2 Total book adjusted/carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 .....\$ .....
- 16.3 Total payable for securities lending reported on the liability page .....\$ .....

17. 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 [ ]
- 17.1 For all agreements that comply with the requirements of the NAIC Financial Condition Examiners Handbook, complete the following:

1 Name of Custodian(s)	2 Custodian Address
Citibank, N.A. ....	333 West 34th Street, New York, NY 10001 .....
JP Morgan Chase Bank N.A. ....	1 Chase Manhattan Plaza, 19th Floor, New York, NY 10005 .....
Northern Trust .....	50 South LaSalle Street, Chicago, IL 60603 .....
State Street Global Services .....	801 Pennsylvania Avenue, Kansas City, MO 64105 .....
State Street Corporation .....	One Lincoln Street, Boston, Massachusetts, 02111 .....

- 17.2 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)

- 17.3 Have there been any changes, including name changes, in the custodian(s) identified in 17.1 during the current quarter? ..... Yes [ ] No [ X ]
- 17.4 If yes, give full information relating thereto:

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

- 17.5 Identify all investment advisors, brokers/dealers or individuals acting on behalf of broker/dealers that have access to the investment accounts, handle securities and have authority to make investments on behalf of the reporting entity:

1 Central Registration Depository	2 Name(s)	3 Address
110363 .....	OFI Institutional Asset Management, Inc. ....	Two World Financial Center, 225 Liberty Street, New York, NY 10281-1008 .....
106006 .....	Babson Capital Management, LLC .....	1500 Main Street, Springfield, MA 01115 .....
104517 .....	Franklin Advisers, Inc. ....	One Franklin Parkway, San Mateo, CA 94403-1906 .....
123711 .....	Tortoise Capital Advisors, L.L.C. ....	11550 Ash Street, Suite 300, Leawood, KS 66211 .....
104559 .....	PIMCO- Pacific Investment Management Company LLC .....	840 Newport Center Drive, Suite 100, Newport Beach, CA 92660 .....
107926 .....	Earnest Partners LLC .....	1180 Peachtree St NE Suite 2300, Atlanta, GA 30309 .....
141037 .....	KA Fund Advisors LLC .....	811 Main Street, 14th Floor, Houston, TX 77002 .....
162754 .....	IFM Investors Pty Ltd .....	Level 29 Casselden, 2 Lonsdale Street, Melbourne VIC 3000 .....
185402 .....	Ashmore Investment Management Limited .....	61 Aldwych, London WC2B 4AE .....
162264 .....	Jefferies Finance LLC .....	520 Madison Avenue, 19th Floor, New York, NY 10022 .....

- 18.1 Have all the filing requirements of the Purposes and Procedures Manual of the NAIC Investment Analysis Office been followed? ..... Yes [ ] No [ X ]
- 18.2 If no, list exceptions:

At 6/30/2016, 111 issues for 92 issuers did not meet the filing requirements of the Purposes and Procedures Manual. The majority of these issues currently lack one or more of the following: Valid cusip/PPN, audited financials and/or executed legal documentation. Exceptions totaled \$632,735,809 or 0.72% of all assets.

**GENERAL INTERROGATORIES****PART 2 - LIFE & HEALTH**

1. Report the statement value of mortgage loans at the end of this reporting period for the following categories:	1
	Amount
1.1 Long-Term Mortgages In Good Standing	
1.11 Farm Mortgages .....	\$ 3,226,556
1.12 Residential Mortgages .....	\$ 1,667,187,449
1.13 Commercial Mortgages .....	\$ 20,039,317,775
1.14 Total Mortgages in Good Standing .....	<u>\$ 21,709,731,780</u>
1.2 Long-Term Mortgages In Good Standing with Restructured Terms	
1.21 Total Mortgages in Good Standing with Restructured Terms .....	<u>\$</u>
1.3 Long-Term Mortgage Loans Upon which Interest is Overdue more than Three Months	
1.31 Farm Mortgages .....	\$
1.32 Residential Mortgages .....	\$
1.33 Commercial Mortgages .....	\$
1.34 Total Mortgages with Interest Overdue more than Three Months .....	<u>\$</u>
1.4 Long-Term Mortgage Loans in Process of Foreclosure	
1.41 Farm Mortgages .....	\$
1.42 Residential Mortgages .....	\$
1.43 Commercial Mortgages .....	\$
1.44 Total Mortgages in Process of Foreclosure .....	\$
1.5 Total Mortgage Loans (Lines 1.14 + 1.21 + 1.34 + 1.44) (Page 2, Column 3, Lines 3.1 + 3.2) .....	<u>\$ 21,709,731,780</u>
1.6 Long-Term Mortgages Foreclosed, Properties Transferred to Real Estate in Current Quarter	
1.61 Farm Mortgages .....	\$
1.62 Residential Mortgages .....	\$
1.63 Commercial Mortgages .....	\$
1.64 Total Mortgages Foreclosed and Transferred to Real Estate .....	<u>\$</u>
2. Operating Percentages:	
2.1 A&H loss percent .....	77.290 %
2.2 A&H cost containment percent .....	1.300 %
2.3 A&H expense percent excluding cost containment expenses .....	75.990 %
3.1 Do you act as a custodian for health savings accounts? .....	Yes [ ] No [ X ]
3.2 If yes, please provide the amount of custodial funds held as of the reporting date .....	\$
3.3 Do you act as an administrator for health savings accounts? .....	Yes [ ] No [ X ]
3.4 If yes, please provide the balance of the funds administered as of the reporting date .....	\$

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE S - CEDED REINSURANCE**

Showing All New Reinsurance Treaties - Current Year to Date

1	2	3	4	5	6	7	8	9
NAIC Company Code	ID Number	Effective Date	Name of Reinsurer	Domiciliary Jurisdiction	Type of Reinsurance Ceded	Type of Reinsurer	Certified Reinsurer Rating (1 through 6)	Effective Date of Certified Reinsurer Rating
.88340	59-2859797	12/01/2015	Hannover Life Reassurance Co of America (HAS2)	FL	YRT/G	Authorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (FR56)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (PH55)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (PH56)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (PHB1)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (PX58)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (ST84)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (ST85)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (ST97)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STB1)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STB2)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STB3)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STB4)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STB5)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STD1)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STD4)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STE4)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STH1)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STM2)	KY	YRT/G	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STM3)	KY	YRT/G	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STM3)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STM5)	KY	YRT/G	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STM5)	KY	YRT/I	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STM6)	KY	YRT/G	Unauthorized		
.00000	AA-3770192	06/01/2016	Scottish Annuity & Life Ins Co. (Cayman) LTD (STN1)	KY	YRT/I	Unauthorized		
.82627	06-0839705	06/29/2015	Swiss Re Life & Health America Inc. (SRR1)	MO	YRT/I	Authorized		
.82627	06-0839705	12/01/2015	Swiss Re Life & Health America Inc. (SRS2)	MO	YRT/G	Authorized		

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company  
**SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS**

Current Year To Date - Allocated by States and Territories

1	Life Contracts		Direct Business Only					
	2	3	4	5	6	7		
States, Etc.	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	62,744,270	10,554,016	3,021,901	4,080,592	80,400,779	22,081,506
2. Alaska	AK	L	2,371,026	603,649	150,056	2,016,771	5,141,502	801,335
3. Arizona	AZ	L	24,507,304	20,953,489	4,471,565	7,883,762	57,816,120	2,944,875
4. Arkansas	AR	L	27,711,729	3,217,105	946,529	865,117	32,740,480	6,897,426
5. California	CA	L	286,647,609	126,758,393	28,949,098	379,656,868	822,011,968	254,508,801
6. Colorado	CO	L	43,165,631	12,440,713	5,014,659	37,036,260	97,657,263	21,764,655
7. Connecticut	CT	L	70,482,779	36,516,206	9,878,970	54,087,518	170,965,473	11,860,531
8. Delaware	DE	L	12,739,296	6,042,017	751,176	21,732,863	41,265,352	755,482,798
9. District of Columbia	DC	L	9,072,134	2,946,695	1,932,496	15,790,043	29,741,368	1,025,683
10. Florida	FL	L	247,091,234	71,850,849	14,192,303	138,566,628	471,700,814	140,440,768
11. Georgia	GA	L	74,239,386	36,040,949	11,016,063	201,485,625	322,782,023	21,628,297
12. Hawaii	HI	L	9,147,424	6,515,390	1,471,952	10,180,020	27,314,786	1,463,997
13. Idaho	ID	L	12,762,472	6,323,424	599,064	7,878,582	27,563,542	3,319,429
14. Illinois	IL	L	122,050,797	46,948,342	12,393,132	423,029,034	604,421,305	38,546,462
15. Indiana	IN	L	37,142,043	17,003,929	4,331,798	28,510,600	86,988,370	7,029,273
16. Iowa	IA	L	34,403,775	6,824,587	1,794,666	131,543,764	174,566,792	6,019,195
17. Kansas	KS	L	34,017,408	6,477,075	2,953,525	13,061,051	56,509,059	9,626,539
18. Kentucky	KY	L	14,855,871	7,623,174	2,384,572	131,389,595	156,253,212	26,694,518
19. Louisiana	LA	L	40,715,318	9,726,173	2,708,947	11,640,591	64,791,029	12,690,589
20. Maine	ME	L	26,746,666	2,081,112	1,131,647	14,305,807	44,265,232	1,211,065
21. Maryland	MD	L	60,500,317	20,683,475	14,226,111	66,877,764	162,287,667	21,401,117
22. Massachusetts	MA	L	81,788,682	136,634,101	15,218,331	550,931,672	784,572,786	24,246,875
23. Michigan	MI	L	71,709,309	28,034,901	6,748,829	80,073,896	186,566,935	19,473,932
24. Minnesota	MN	L	30,707,045	23,471,038	4,136,622	110,180,512	168,495,217	30,044,246
25. Mississippi	MS	L	17,640,931	11,321,134	5,041,109	4,423,888	38,427,062	8,461,928
26. Missouri	MO	L	43,078,607	21,651,077	5,185,561	87,878,306	157,793,551	20,107,763
27. Montana	MT	L	8,347,704	3,863,642	520,941	559,461	13,291,748	6,095,269
28. Nebraska	NE	L	15,748,225	7,947,467	2,932,064	107,984,775	134,612,531	6,800,525
29. Nevada	NV	L	13,685,699	7,108,985	1,635,222	26,762,670	49,192,576	3,284,135
30. New Hampshire	NH	L	13,529,814	10,761,033	2,022,353	7,854,454	34,167,654	6,327,530
31. New Jersey	NJ	L	154,069,375	75,312,809	18,333,151	193,505,963	441,221,298	42,758,847
32. New Mexico	NM	L	25,827,749	2,503,434	1,001,178	232,088	29,564,449	1,151,052
33. New York	NY	L	445,284,082	204,674,951	40,313,600	319,078,193	1,009,350,826	39,331,969
34. North Carolina	NC	L	82,317,139	40,655,766	13,198,994	38,215,571	174,387,470	46,520,567
35. North Dakota	ND	L	4,649,311	3,225,390	271,150	20,026,505	28,172,356	9,708,583
36. Ohio	OH	L	86,978,510	60,724,616	7,767,153	96,934,690	252,404,969	18,692,876
37. Oklahoma	OK	L	37,654,113	7,299,291	3,791,380	34,463,182	83,207,966	9,004,326
38. Oregon	OR	L	10,190,169	6,805,388	2,297,961	14,260,474	33,553,992	5,121,389
39. Pennsylvania	PA	L	125,846,493	70,506,214	19,351,927	187,749,745	403,454,379	7,561,059
40. Rhode Island	RI	L	7,484,469	6,282,357	1,458,714	20,591,673	35,817,213	2,154,058
41. South Carolina	SC	L	29,446,076	30,779,374	7,011,780	43,820,899	111,058,129	8,552,369
42. South Dakota	SD	L	5,970,568	1,410,770	329,182	758,713	8,469,233	2,018,933
43. Tennessee	TN	L	43,590,963	31,767,268	8,211,916	141,965,159	225,535,306	20,186,529
44. Texas	TX	L	181,879,352	86,454,117	22,983,089	104,700,879	396,017,437	88,881,737
45. Utah	UT	L	20,157,955	14,376,455	2,031,159	6,065,455	42,631,024	8,778,882
46. Vermont	VT	L	4,043,819	3,330,477	619,807	3,407,429	11,401,532	1,882,133
47. Virginia	VA	L	95,647,323	76,813,638	15,397,690	94,056,896	281,915,547	43,698,836
48. Washington	WA	L	76,646,798	15,574,565	4,788,609	23,686,104	120,696,076	2,971,806
49. West Virginia	WV	L	5,248,095	4,731,943	749,870	18,281,119	29,011,027	11,998,782
50. Wisconsin	WI	L	42,755,110	20,343,532	2,822,146	42,205,656	108,126,444	5,937,605
51. Wyoming	WY	L	4,864,504	945,181	285,226	489,521	6,584,432	285,240
52. American Samoa	AS	N						
53. Guam	GU	N			3,152		3,152	
54. Puerto Rico	PR	L	25,155,466	5,611,765	4,079,743	1,407,759	36,254,733	677,821
55. U.S. Virgin Islands	VI	N	5,740		16,217		21,957	
56. Northern Mariana Islands	MP	N						
57. Canada	CAN	N	805,920		42,535	1,256	849,711	66,775
58. Aggregate Other Aliens	OT	XXX	7,922,960	1,527	271,928	93,034,260	101,230,675	
59. Subtotal	(a)	52	3,073,792,564	1,479,054,968	345,190,519	4,177,207,478	9,075,245,529	1,870,223,236
90. Reporting entity contributions for employee benefits plans		XXX						
91. Dividends or refunds applied to purchase paid-up additions and annuities		XXX	625,823,943	1,641,999			627,465,942	
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	12,828,399		6,049,194		18,877,593	
94. Aggregate or other amounts not allocable by State		XXX						
95. Totals (Direct Business)		XXX	3,712,444,906	1,480,696,967	351,239,713	4,177,207,478	9,721,589,064	1,870,223,236
96. Plus Reinsurance Assumed		XXX	28,890,121	191,337		732,622,546	761,704,004	1,033,939,493
97. Totals (All Business)		XXX	3,741,335,027	1,480,888,304	351,239,713	4,909,830,024	10,483,293,068	2,904,162,729
98. Less Reinsurance Ceded		XXX	380,098,666		63,130,962		443,229,628	
99. Totals (All Business) less Reinsurance Ceded		XXX	3,361,236,361	1,480,888,304	288,108,751	4,909,830,024	10,040,063,440	2,904,162,729
DETAILS OF WRITE-INS								
58001. ZZZ Other Alien		XXX	7,922,960	1,527	271,928	93,034,260	101,230,675	
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	7,922,960	1,527	271,928	93,034,260	101,230,675	
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.

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

## 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>
<b>MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY</b>	04-1590850	65935	Massachusetts
<b>Direct &amp; Indirect Owned Subsidiaries:</b>			
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 Re Finance 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
Country Club Office Plaza LLC*	27-1435692		Delaware
Fern Street LLC	37-1732913		Delaware
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
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
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

\*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>
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
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
MM Asset Management Holding LLC	45-4000072		Delaware
Babson Capital Management LLC	51-0504477		Delaware
Babson Capital Finance LLC	80-0875475		Delaware
BCF Europe Funding Limited	None		Ireland
BCF Senior Funding I LLC	None		Delaware
Babson Capital Securities LLC	04-3238351		Delaware
Babson Capital Guernsey Limited	98-0437588		Guernsey
Babson Capital Management (UK) Limited	98-0432153		United Kingdom
Babson 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
Babson Capital Global Advisors Limited	98-1012393		United Kingdom
BCGSS 2 GP LLP	None		United Kingdom
Babson European Direct Lending 1 GP LLP	None		United Kingdom
Babson Capital Management (Japan) KK	None		Japan
Cornerstone Real Estate Advisers LLC	55-0878489		Delaware
Cornerstone Real Estate Advisers Inc.	04-3238351		California
Cornerstone Real Estate Advisers Japan K.K.	None		Japan
Cornerstone Real Estate UK Holdings Limited	None		Delaware
CREAE AIFM LLP	None		United Kingdom
Cornerstone Real Estate Advisers (Continental Europe) Limited	98-0654401		United Kingdom
Cornerstone Real Estate Advisers Europe LLP	98-0654388		United Kingdom
Cornerstone Real Estate Advisers Europe Finance LLP	98-0654412		United Kingdom
Cornerstone Real Estate Advisers GmbH	98-1194368		Germany
Babson Capital Management (Australia) Holding Company Pty Ltd.	None		Australia
Babson Capital Management (Australia) Pty Ltd.	98-0457456		Australia

\*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>
Babson Capital Cornerstone Asia Limited	None		Hong Kong, Special Administrative Region of China
Wood Creek Capital Management LLC	04-1590850		Delaware
Wood Creek Index Company, LLC	26-3115362		Delaware
Alchemy Copyrights, LLC.	47-2642354		Delaware
Milestone Acquisition Holding, LLC.	47-3055009		Delaware
Red Lake Ventures, LLC	46-5460309		Delaware
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 Capital Core Fixed Income Management LLC	27-3523916		Delaware
Babson Capital Total Return Management LLC	27-3524203		Delaware
Babson CLO Investment Partners GP, LLC	None		Delaware
Babson Global Loan Feeder Management, LLC	None		Delaware
Babson TERO Management LLC	None		Delaware
Babson Investment Grade CLO Debt 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
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

\*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>
OFI Global Trust Company	13-3459790		New York
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, Inc.	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 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	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
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
First Mercantile Trust Company	62-0951563		Tennessee
Haven Life Insurance Agency, LLC	46-2252944		Delaware
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		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>
Society of Grownups, LLC	47-1466022		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
MML Re Finance LLC	04-1590850		Delaware
<b>Other Affiliates &amp; Funds:</b>			
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
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
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
100 w. 3 <sup>rd</sup> Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	04-1590850		Delaware
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

\*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>
Babson Capital Emerging Markets Corporate Bond Fund	None		Ireland
Babson Capital Emerging Markets Local Debt Fund	None		Ireland
Babson Capital European High Yield Bond Fund	None		Ireland
Babson Capital 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
Babson Capital 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 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
Babson Investment Grade CLO Debt Fund LP	47-3971963		Delaware
Babson Mezzanine Realty Investors II	24-1446970		Delaware
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
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
Connecticut Valley Structured Credit CDO II, Ltd.	None		Cayman Islands
Connecticut Valley Structured Credit CDO III, Ltd.	None		Cayman Islands
Cambridge Hotel, LLC	06-1614196		Delaware
Cheyenne Mountain Resort LLC	04-1590850		Delaware
Cornerstone Core Fund SCSCp	None		Luxembourg
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

\*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 High Yield Venture LP	36-4770946		Delaware
Cornerstone Hotel Income and Equity Fund II LP	26-1828760		Delaware
Cornerstone/LAZ Parking Fund LP	46-5437441		Delaware
Cornerstone Partners IV LLC	71-0908077		Delaware
Cornerstone Patriot 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
MMI/BDI Riverside Mt. Vernon LLC	26-2704765		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
Sapphire Valley CDO I, Ltd.	None		Cayman Islands
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 <sup>th</sup> Street Hotel LLC	05-1590850		Delaware
Whately CDO, Ltd.	None		Cayman Islands
Wood Creek Multi Asset Fund, L.P.	20-4981369		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>
<b>Babson Affiliates &amp; Funds:</b>			
Babson Capital Emerging Markets Debt Blended Total Return Fund	None		Ireland
Babson Capital Emerging Markets Debt Short Duration Fund	None		Ireland
Babson Capital Emerging Markets Sovereign Debt Fund	None		Ireland
Babson Capital Floating Rate Income Fund, L.P.	27-3330830		Delaware
Babson Capital Global Investment Grade Corporate Plus Fund	None		Ireland
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands
Babson Capital Senior CLO Debt Fund	None		Ireland
Babson Emerging Markets Debt Blended Total Return Fund	47-3758432		Massachusetts
Babson Emerging Markets Local Currency Debt Fund	47-3774453		Massachusetts
Babson Global High Yield Bond Fund	47-3790192		Massachusetts
Babson Global Income Opportunities Credit Fund	46-3119764		Massachusetts
Babson Total Return Bond Fund	47-3734770		Massachusetts
Babson US 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
<b>Baring Affiliates &amp; Funds:</b>			
Baring Greater China Equity Fund	None		Hong Kong
<b>Cornerstone Affiliates &amp; Funds:</b>			
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
21 West 86 LLC*	45-5257904		Delaware
AT Mid-Atlantic Office Portfolio LLC*	45-2779931		Delaware
CHC/RFP VI Core LLC	04-1590850		Delaware
Cornerstone Fort Pierce Development LLC*	56-2630592		Delaware
Cornerstone Permanent Mortgage Fund	45-2632610		Delaware
Cornerstone Permanent Mortgage Fund II	61-1750537		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
Farringdon London Holdings LLC*	46-3880526		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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Infinity SCD Ltd.	None		United Kingdom
Johnston Groves LLC	20-4819358		Delaware
MMI/Hines Harrison LLC*	46-5347643		Delaware
MM Woodfield Martingale LLC*	46-4077059		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
<b>MassMutual Premier Funds:</b>			
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
<b>MassMutual Select Funds:</b>			
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
<b>MML Series Investment Funds:</b>			
MML Series International Equity Fund	46-4257056		Massachusetts
<b>MML Series Investment Funds II:</b>			
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
<b>MassMutual RetireSMART Funds:</b>			
MassMutual RetireSMART 2055 Fund	46-3289207		Massachusetts
MassMutual RetireSMART 2060 Fund	47-5326235		Massachusetts
MassMutual RetireSMART Conservative Fund	45-1618155		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 Growth Fund	45-1618222		Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262		Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046		Massachusetts
<b>Oppenheimer Funds:</b>			
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 Small Cap Value Fund	47-4835759		Delaware
Oppenheimer SteelPath Panoramic Fund	47-3987967		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.

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
0435	Massachusetts Mut Life Ins Co	65935	04-1590850	3848388	0000225602		Massachusetts Mutual Life Insurance Company (MMLIC)	MA	RE	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0435	CM Life Ins Co	93432	06-1041383				C.M. Life Insurance Company	CT	DS	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	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			06-1041383				CML Mezzanine Investor, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			06-1041383				CML Mezzanine Investor L, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			06-1041383				CML Mezzanine Investor III, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			06-1041383				CML Re Finance LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			04-1590850				MML Mezzanine Investor L, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000							MML Special Situations Investor LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC	
0000			47-5322979				Timberland Forest Holding LLC	DE	DS	C.M. Life Insurance Company	Ownership	5.000	MMLIC	
0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Wood Creek Capital Management LLC	Management		MMLIC	
0000							Lyme Adirondack Forest Company, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC	
0000			20-5305426				Lyme Adirondack Timber Sales, Inc.	NY	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC	
0000							Lyme Adirondack Timberlands I, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC	
0000							Lyme Adirondack Timberlands II, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC	
0000			04-1590850				Berkshire Way LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			26-4441097				WP-SC, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	81.400	MMLIC	
0000			26-4441097				WP-SC, LLC	DE	DS	C.M. Life Insurance Company	Ownership	18.600	MMLIC	
0000			04-1590850				MSP-SC, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			27-1435692				Country Club Office Plaza LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	88.100	MMLIC	
0000			27-1435692				Country Club Office Plaza LLC	DE	DS	C.M. Life Insurance Company	Ownership	11.900	MMLIC	
0000			37-1732913				Fern Street LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			04-1590850				MassMutual Retirement Services, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			04-3356880		0000943903		MML Distributors LLC	MA	DS	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MMLIC	
0000			04-3356880		0000943903		MML Distributors LLC	MA	DS	MassMutual Holding LLC	Ownership	1.000	MMLIC	
0000							MML Investment Advisers, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			04-1590850				MML Mezzanine Investor, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			46-3238013				MML Strategic Distributors, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			06-1563535	2881445	0001103653		The MassMutual Trust Company, FSB	CT	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			04-1590850				MMC Equipment Finance LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			26-0073611				MassMutual Asset Finance LLC	DE	DS	MMC Equipment Finance LLC	Ownership	99.600	MMLIC	
0000			26-0073611				MassMutual Asset Finance LLC	DE	DS	C.M. Life Insurance Company	Ownership	0.400	MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.0000			27-1379258				MMAF Equipment Finance LLC 2009-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC	
.0000			45-2589019				MMAF Equipment Finance LLC 2011-A	.DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				MML Private Placement Investment Company I, LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.0000			45-2738137				Pioneers Gate LLC	.DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.0000			45-4376777				MSC Holding Company, LLC	.DE	DS	Company	Ownership	100.000	MMLIC	
.0000			04-3341767				MassMutual Holding MSC, Inc.	.MA	DS	MSC Holding Company, LLC	Ownership	100.000	MMLIC	
.0000			04-2854319	2392316			MassMutual Holding LLC	.DE	DS	Company	Ownership	100.000	MMLIC	
.0000			06-1597528				MassMutual Assignment Company	.NC	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000			04-1590850		0001399869		MassMutual Capital Partners LLC	.DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000			47-1296410				MassMutual Ventures LLC	.DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				MM Rotheray Holdco US LLC	.DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000			04-1590850		0000701059		MML Investors Services, LLC	.MA	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				MML Insurance Agency, LLC	.MA	DS	MML Investors Services, LLC	Ownership	100.000	MMLIC	
.0000			41-2011634		0001456663		MML ISI Financial Alliances, LLC	.DE	DS	MML Investors Services, LLC	Ownership	51.000	MMLIC	
.0000			04-3313782				MassMutual International LLC	.DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000							MassMutual Asia Limited	.HKG	DS	MassMutual International LLC	Ownership	100.000	MMLIC	
.0000							MassMutual Asia Investors Ltd.	.HKG	DS	MassMutual Asia Limited	Ownership	100.000	MMLIC	
.0000							MassMutual Guardian Limited	.HKG	DS	MassMutual Asia Limited	Ownership	100.000	MMLIC	
.0000							MassMutual Insurance Consultants Limited	.HKG	DS	MassMutual Asia Limited	Ownership	100.000	MMLIC	
.0000							MassMutual Services Limited	.HKG	DS	MassMutual Asia Limited	Ownership	100.000	MMLIC	
.0000							MassMutual Trustees Limited	.HKG	DS	MassMutual Asia Limited	Ownership	80.000	MMLIC	
.0000							Protective Capital (International) Limited							
.0000			98-0610331				MassMutual Asia Limited	.HKG	DS	MassMutual Asia Limited	Ownership	100.000	MMLIC	
.0000							MassMutual Life Insurance Company	.JPN	DS	MassMutual International LLC	Ownership	100.000	MMLIC	
.0000			98-1033127				MassMutual Internacional (Chile) SpA	.CHL	DS	MassMutual International LLC	Ownership	100.000	MMLIC	
.0000			45-4000072				MM Asset Management Holding LLC	.DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.0000			51-0504477		0000009015		Babson Capital Management LLC	.DE	DS	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC	
.0000			80-0875475				Babson Capital Finance LLC	.DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000							BCF Europe Funding Limited	.JRL	DS	Babson Capital Finance LLC	Ownership	100.000	MMLIC	
.0000							BCF Senior Funding I LLC	.DE	DS	Babson Capital Finance LLC	Ownership	100.000	MMLIC	
.0000			04-3238351		0000930012		Babson Capital Securities LLC	.DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			98-0437588				Babson Capital Guernsey Limited	.GGY	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			98-0432153				Babson Capital Management (UK) Limited	.GBR	DS	Babson Capital Guernsey Limited	Ownership	100.000	MMLIC	
.0000							Babson GPC GP S.à.r.l	.LUX	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							Almack Mezzanine GP III Limited	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							Almack Holding Partnership GP Limited	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							Almack Mezzanine Fund Limited	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							Almack Mezzanine Fund II Limited	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000			98-1012393				Babson Capital Global Advisors Limited	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							BCGSS 2 GP LLP	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							Babson European Direct Lending 1 GP LLP	.GBR	DS	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
.0000							Babson Capital Management (Japan) KK	.JPN	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			55-0878489	3456895	0001379495		Cornerstone Real Estate Advisers LLC	.DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-3238351	3456895	0001011148		Cornerstone Real Estate Advisers Inc.	.CA	DS	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC	
.0000							Cornerstone Real Estate Advisers Japan K.K.	.JPN	DS	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.0000							Cornerstone Real Estate UK Holdings Limited	.DE	DS	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC	
.0000							CREAE AIFM LLP	.GBR	DS	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC	
.0000			98-0654401				Cornerstone Real Estate Advisers (Continental Europe) Limited	.GBR	DS	Cornerstone Real Estate UK Holdings Limited	Ownership	100.000	MMLIC	
.0000			98-0654388				Cornerstone Real Estate Advisers Europe LLP	.GBR	DS	Cornerstone Real Estate UK Holdings Limited	Ownership	100.000	MMLIC	
.0000			98-0654412				Cornerstone Real Estate Advisers Europe Finance LLP	.GBR	DS	Cornerstone Real Estate UK Holdings Limited	Ownership	100.000	MMLIC	
.0000			98-1194368				Cornerstone Real Estate Advisers GmbH	.DEU	DS	Cornerstone Real Estate UK Holdings Limited	Ownership	100.000	MMLIC	
.0000							Babson Capital Management (Australia) Holding Company Pty Ltd.	.AUS	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			98-0457456				Babson Capital Management (Australia) Pty Ltd.	.AUS	DS	Babson Capital Australia Holding Company Pty Ltd.	Ownership	100.000	MMLIC	
.0000							Babson Capital Cornerstone Asia Limited	.HKG	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				Wood Creek Capital Management LLC	.DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			26-3115362				Wood Creek Index Company, LLC	.DE	DS	Wood Creek Capital Management LLC	Ownership	100.000	MMLIC	
.0000			47-2642354				Alchemy Copyrights, LLC.	.DE	NIA	MassMutual Holding LLC	Ownership	15.200	MMLIC	
.0000			47-2642354				Alchemy Copyrights, LLC.	.DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
.0000			47-3055009				Milestone Acquisition Holding, LLC.	.DE	NIA	MassMutual Holding LLC	Ownership	18.300	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	31.500	MMLIC	
.0000			46-5460309				Red Lake Ventures, LLC	.DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
.0000			46-3123110				Sweet Tree Holdings 1, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	16.100	MMLIC	
.0000			46-3123110				Sweet Tree Holdings 1, LLC	.DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
.0000							Tamiami Citurus, LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	15.700	MMLIC	
.0000							Teaktree Acquisition, LLC	.DE	NIA	MassMutual Holding LLC	Ownership	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	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	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	32.600	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	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	42.600	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	17.900	MMLIC	
.0000			46-3378584				WC Aircraft Holdings US II, LLC	.DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC	
.0000							Wood Creek Aircraft Holding I, LP	.CYM	NIA	Massachusetts Mutual Life Insurance Company	Ownership	12.100	MMLIC	
.0000							Wood Creek Aircraft Holding I, LP	.CYM	NIA	Wood Creek Capital Management LLC	Management		MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.0000			04-1590850		0001501011		Babson Capital Floating Rate Income Fund Management, LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			27-3523916		0001503878		Babson Capital Core Fixed Income Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			27-3524203		0001503879		Babson Capital Total Return Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000							Babson CLO Investment Partners GP, LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000							Babson Global Loan Feeder Management, LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000							Babson TERO Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000							Babson Investment Grade CLO Debt Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			98-0536233				Benton Street Advisors, Inc.	CYM	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				SDCOS Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				Great Lakes III GP, LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				Loan Strategies Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				Mezzco LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			02-0767001				Mezzco II LLC	DE	DS	Babson Capital Management LLC	Ownership	98.400	MMLIC	
.0000			41-2280126				Mezzco III LLC	DE	DS	Babson Capital Management LLC	Ownership	99.300	MMLIC	
.0000			80-0920285				Mezzco IV LLC	DE	DS	Babson Capital Management LLC	Ownership	99.300	MMLIC	
.0000			90-0666326				Mezzco Australia LLC	DE	DS	Babson Capital Management LLC	Ownership	72.000	MMLIC	
.0000							Mezzco Australia II LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			04-1590850				Somerset Special Opportunities Management LLC	DE	DS	Babson Capital Management LLC	Ownership	100.000	MMLIC	
.0000			84-1149206	2897101			Oppenheimer Acquisition Corp.	DE	DS	MassMutual Asset Management Holding LLC	Ownership	96.800	MMLIC	
.0000			13-2527171	2679183	0000820031		OppenheimerFunds, Inc.	CO	DS	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC	
.0000			13-2953455		0000276541		OppenheimerFunds Distributor, Inc.	NY	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			84-1106295				Oppenheimer Real Asset Management, Inc.	DE	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			13-4160541	3458125	0001179479		OFI Global Institutional, Inc.	NY	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			13-3459790	2914875			OFI Global Trust Company	NY	DS	OFI Institutional Asset Management, Inc.	Ownership	100.000	MMLIC	
.0000			22-2697140				HarbourView Asset Management Corporation	NY	DS	OFI Institutional Asset Management, Inc.	Ownership	100.000	MMLIC	
.0000			25-1951632		0000099782		Trinity Investment Management Corporation	PA	DS		Ownership	100.000	MMLIC	
.0000			84-1128397		0000857468		OFI SteelPath, Inc.	DE	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			84-1066811		0000276398		Shareholder Services, Inc.	CO	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000							VTL Associates, LLC	PA	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000							Index Management Solutions, LLC	PA	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			84-0765063		0001041674		OFI Global Asset Management, Inc.	DE	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			91-2036414		0001179480		OFI Private Investments Inc.	NY	DS	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
.0000			62-1210532				Tremont Group Holdings, Inc.	NY	DS	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC	
.0000			06-1121864		0000764139		Tremont Partners, LLC	CT	DS	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
.0000			20-8215352				Tremont GP, LLC	DE	DS	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
.0000			90-0874510				Settlement Agent LLC	DE	DS	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
.0000							Tremont (Bermuda) Limited	BMU	DS	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
.0000			04-1590850		2363071	0000932463	MassMutual Baring Holding LLC	DE	DS	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC	
.0000			98-0241935				Baring North America LLC	MA	DS	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC	
.0000							MassMutual Holdings (Bermuda) Limited	BMU	DS	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC	
.0000			98-0241935				Baring Asset Management Limited	GBR	DS	MassMutual Holdings (Bermuda) Limited	Ownership	100.000	MMLIC	
.0000			98-0457328		0001568131		Baring International Investment Limited	GBR	DS	Baring Asset Management Limited	Ownership	100.000	MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....0000			98-0457587				Baring International Investment Management Holdings	GBR	DS	Baring Asset Management Limited	Ownership	100.000	MMLIC	
.....0000			98-0457576				Baring Asset Management UK Holdings Limited	GBR	DS	Baring International Investment Management Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0465031				Baring Asset Management GmbH	DEU	DS	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0524271				Baring Asset Management (Asia) Holdings Limited	HKG	DS	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0457465				Baring International Fund Managers (Bermuda) Limited	BMU	DS	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0457463				Baring Asset Management (Asia) Limited	HKG	DS	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC	
.....0000							Baring Asset Management Korea Limited	KOR	DS	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC	
.....0000			98-0236449				Baring Asset Management (Japan) Limited	JPN	DS	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0457456				Baring Asset Management (Australia) Pty Limited	AUS	DS	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0524272				Baring International Fund Managers (Ireland) Limited	IRL	DS	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC	
.....0000							Baring Asset Management Switzerland Sarl	CHE	DS	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0457707				Baring SICE (Taiwan) Limited	TWN	DS	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0497550				Baring France SAS	FRA	DS	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC	
.....0000			98-0457586				Baring Fund Managers Limited	GBR	DS	Baring Asset Management Limited	Ownership	100.000	MMLIC	
.....0000			98-0457574				Baring Pension Trustees Limited	GBR	DS	Baring Asset Management Limited	Ownership	100.000	MMLIC	
.....0000			98-0457578				Baring Investment Services Limited	GBR	DS	Baring Asset Management Limited	Ownership	100.000	MMLIC	
.....0000			62-0951563	1160004	0001259664		First Mercantile Trust Company	TN	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.....0000			46-2252944				Haven Life Insurance Agency, LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.....0000			04-2443240				MML Management Corporation	MA	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.....0000			04-3548444				MassMutual International Holding MSC, Inc.	MA	DS	MML Management Corporation	Ownership	100.000	MMLIC	
.....0000			47-1466022				Society of Grownups, LLC	MA	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC	
.....0000			04-1590850				MML Mezzanine Investor II, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.....0000			04-1590850				MML Mezzanine Investor III, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.....0000			27-3576835				MassMutual External Benefits Group LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.....0000			04-1590850				MML Re Finance LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	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	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.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 2014-11 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC	
.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 2015-11 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	33.000	MMLIC	
.0000							JFIN CLO 2015-11 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 2015-11 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC	
.0000							Massachusetts Mutual Life Insurance Company							
.0000			04-1590850		0000067160		MML Private Equity Fund Investor LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
.0000			04-1590850				MM Private Equity Intercontinental LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.0000			04-1590850				100 w. 3rd Street LLC	DE	NIA	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	38.400	MMLIC	
.0000							Almack Mezzanine Fund I LP	GBR	NIA	C.M. Life Insurance Company	Ownership	4.300	MMLIC	
.0000							Almack Mezzanine Fund I LP	GBR	NIA	Babson Capital Europe Limited	Management		MMLIC	
.0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership	72.000	MMLIC	
.0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Babson Capital Europe Limited	Management		MMLIC	
.0000							Almack Mezzanine Fund III LP	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership	33.800	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	Babson Capital Europe Limited	Management		MMLIC	
.0000							Babson Capital Emerging Markets Corporate Bond Fund	JRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.000	MMLIC	
.0000							Babson Capital Emerging Markets Corporate Bond Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.0000							Babson Capital Emerging Markets Local Debt Fund	JRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership	63.600	MMLIC	
.0000							Babson Capital Emerging Markets Local Debt Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000							Babson Capital European High Yield Bond Fund	JRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership	48.700	MMLIC	
.0000							Babson Capital European High Yield Bond Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000							Babson Capital Global Special Situations Credit Fund 1	JRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.700	MMLIC	
.0000							Babson Capital Global Special Situations Credit Fund 1	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	24.100	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	Babson Capital Management LLC	Management		MMLIC	
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	78.700	MMLIC	
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	3.900	MMLIC	
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000							Babson Capital US High Yield Bond Fund	JRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership	55.700	MMLIC	
.0000							Babson Capital US High Yield Bond Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000							Babson CLO Ltd. 2007-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	4
.0000							Babson CLO Ltd. 2012-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson CLO Ltd. 2012-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson CLO Ltd. 2013-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	7
.0000			98-1128827				Babson CLO Ltd. 2013-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	8
.0000							Babson CLO Ltd. 2014-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	2
.0000							Babson CLO Ltd. 2014-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	9
.0000							Babson CLO Ltd. 2014-III	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson CLO Ltd. 2015-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	10
.0000							Babson CLO Ltd. 2015-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	11
.0000							Babson CLO Ltd. 2016-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson Euro CLO 2014-I BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson Euro CLO 2014-II BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson Euro CLO 2015-I BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson Euro CLO 2016-I BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000							Babson Global Credit Fund (Lux) SCSp, SIACV-SIF	LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership	14.900	MMLIC	
.0000							Babson Global Credit Fund (Lux) SCSp, SIACV-SIF	LUX	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000			47-3971963				Babson Investment Grade CLO Debt Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	93.300	MMLIC	
.0000			47-3971963				Babson Investment Grade CLO Debt Fund LP	DE	NIA	C.M. Life Insurance Company	Ownership	6.700	MMLIC	
.0000			47-3971963				Babson Investment Grade CLO Debt Fund LP	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000			24-1446970		0001362970		Babson Mezzanine Realty Investors II	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC	
.0000			24-1446970		0001362970		Babson Mezzanine Realty Investors II	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	



STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....0000							Baring Emerging Market Corp Debt Fund	.....JRL	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....92.200	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	.....43.400	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	.....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	.....70.900	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	.....96.500	MMLIC	
.....0000			98-0536233				Benton Street Partners I, L.P.	.....CYM	.....NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			98-0536233				Benton Street Partners I, L.P.	.....CYM	.....NIA	C.M. Life Insurance Company	Ownership	.....0.100	MMLIC	
.....0000			98-0536233				Benton Street Partners I, L.P.	.....CYM	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....0.400	MMLIC	
.....0000			98-0536199				Benton Street Partners II, L.P.	.....CYM	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....29.600	MMLIC	3
.....0000			98-0536199				Benton Street Partners II, L.P.	.....CYM	.....NIA	MassMutual Capital Partners LLC	Ownership	.....8.500	MMLIC	
.....0000			98-0536199				Benton Street Partners II, L.P.	.....CYM	.....NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000							Braemar Energy Ventures I, L.P.	.....DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....94.100	MMLIC	
.....0000							Braemar Energy Ventures I, L.P.	.....DE	.....NIA	Babson Capital Management 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							Connecticut Valley Structured Credit CDO II, Ltd.	.....CYM	.....NIA	Babson Capital Management LLC	Influence		MMLIC	5
.....0000							Connecticut Valley Structured Credit CDO III, Ltd.	.....CYM	.....NIA	Babson Capital Management LLC	Influence		MMLIC	
.....0000							Cornerstone Core Fund SCSCp	.....LUX	.....NIA	MassMutual Holding LLC	Ownership	.....94.000	MMLIC	
.....0000							Cornerstone Core Fund SCSCp	.....LUX	.....NIA	C.M. Life Insurance Company	Ownership	.....6.000	MMLIC	
.....0000							Cornerstone Core Fund SCSCp	.....LUX	.....NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.....0000			27-1701622		0001481752		Cornerstone Core Mortgage Venture I LP	.....DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....50.000	MMLIC	
.....0000			27-1701622		0001481752		Cornerstone Core Mortgage Venture I LP	.....DE	.....NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.....0000			45-3751572		0001534877		Cornerstone Enhanced Mortgage Fund I LP	.....DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....15.800	MMLIC	
.....0000			45-3751572		0001534877		Cornerstone Enhanced Mortgage Fund I LP	.....DE	.....NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.....0000			20-8730751				Cornerstone Global Real Estate LP	.....DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....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	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.....0000			36-4770946		0001590049		Cornerstone High Yield Venture LP	.....DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	.....50.000	MMLIC	
.....0000			36-4770946		0001590049		Cornerstone High Yield Venture LP	.....DE	.....NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.0000			26-1828760		0001423638		Cornerstone Hotel Income & Equity Fund II LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	.15.600	MMLIC	
.0000			26-1828760		0001423638		Cornerstone Hotel Income & Equity Fund II LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.0000			71-0908077				Cornerstone Partners IV LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.0000			20-5578089				Cornerstone Patriot Fund LP	DE	NIA	MassMutual Holding LLC	Ownership	10.200	MMLIC	
.0000			20-5578089				Cornerstone Patriot Fund LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	16.600	MMLIC	
.0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	25.600	MMLIC	
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	3.000	MMLIC	
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.0000			46-5437441				Cornerstone/LAZ Parking Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.0000			46-5437441				Cornerstone/LAZ Parking Fund LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
.0000				3981641			Duchess VI CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
.0000				4007502			Duchess VII CLO B.V.	GBR	NIA	Babson Capital Management 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	62.500	MMLIC	
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	7.700	MMLIC	
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	MassMutual Holding LLC	Ownership	10.400	MMLIC	
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	35.200	MMLIC	
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership	5.300	MMLIC	
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	MassMutual Holding LLC	Ownership	5.100	MMLIC	
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
.0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	35.700	MMLIC	
.0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Babson Capital Management 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			26-2704765				MMI/BDI Riverside Mt. Vernon LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	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	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....0000			30-0713071				Riva Portland LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	..MMLIC	
.....0000							Rockall CLO B.V.	..GBR	..NIA	Babson Capital Management LLC	Influence		..MMLIC	
.....0000			54-2055778				Rockville Town Center LLC	..VA	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	..MMLIC	
.....0000							Sapphire Valley CDO I, Ltd.	..CYM	..NIA	Babson Capital Management LLC	Influence		..MMLIC	..6
.....0000			74-3182902				SDCOS L.P.	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..74.900	..MMLIC	
.....0000			74-3182902				SDCOS L.P.	..DE	..NIA	Babson Capital Management 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 TFMP 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	..62.500	..MMLIC	
.....0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	..DE	..NIA	C.M. Life Insurance Company	Ownership	..2.900	..MMLIC	
.....0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	..DE	..NIA	Babson Capital Management 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	..25.700	..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	Babson Capital Management LLC	Management		..MMLIC	
.....0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	..DE	..NIA	MassMutual Holding LLC	Ownership	..2.600	..MMLIC	
.....0000			32-0160190				Tower Square Capital Partners II-A, L.P.	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..85.000	..MMLIC	
.....0000			32-0160190				Tower Square Capital Partners II-A, L.P.	..DE	..NIA	C.M. Life Insurance Company	Ownership	..15.000	..MMLIC	
.....0000			32-0160190				Tower Square Capital Partners II-A, L.P.	..DE	..NIA	Babson Capital Management LLC	Management		..MMLIC	
.....0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	..DE	..NIA	Babson Capital Management LLC	Management		..MMLIC	
.....0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	..DE	..NIA	MassMutual Holding LLC	Ownership	..22.800	..MMLIC	
.....0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..96.600	..MMLIC	
.....0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	..DE	..NIA	Babson Capital Management LLC	Management		..MMLIC	
.....0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P.	..DE	..NIA	MassMutual Holding LLC	Ownership	..21.500	..MMLIC	
.....0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P.	..DE	..NIA	Babson Capital Management LLC	Management		..MMLIC	
.....0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..41.100	..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	Babson Capital Management LLC	Management		..MMLIC	
.....0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	..DE	..NIA	MassMutual Holding LLC	Ownership	..3.300	..MMLIC	
.....0000			04-1590850				West 46th Street Hotel LLC	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	..MMLIC	
.....0000							Whately CDO, Ltd.	..CYM	..NIA	Babson Capital Management LLC	Influence		..MMLIC	
.....0000			20-4981369		0001371601		Wood Creek Multi Asset Fund, L.P.	..DE	..NIA	Massachusetts Mutual Life Insurance Company	Ownership	..100.000	..MMLIC	
.....0000			20-4981369		0001371601		Wood Creek Multi Asset Fund, L.P.	..DE	..NIA	Babson Capital Management LLC	Management		..MMLIC	
.....0000							Babson Capital Emerging Markets Debt Blended Total Return Fund	..JRL	..NIA	Babson Capital Management LLC	Management		..MMLIC	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....0000							Babson Capital Emerging Markets Debt Short Duration Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000							Babson Capital Emerging Markets Sovereign Debt Fund	JRL	NIA	Babson Capital Management 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	Babson Capital Management LLC	Management		MMLIC	
.....0000							Babson Capital Loan Strategies Master Fund LP	CYM	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000							Babson Capital Global Investment Grade Corporate Plus Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000							Babson Capital Senior CLO Debt Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			47-3758432				Babson Emerging Markets Debt Blended Total Return Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			47-3774453				Babson Emerging Markets Local Currency Debt Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			46-3119764				Babson Global Income Opportunities Credit Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			47-3790192				Babson Global High Yield Bond Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			47-3734770				Babson Total Return Bond Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000			47-3801860				Babson US High Yield Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
.....0000							Gateway Mezzanine Partners I Trust	AUS	NIA	Babson Capital Management 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	Babson Capital Management LLC	Management		MMLIC	
.....0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	40.000	MMLIC	
.....0000							Baring Greater China Equity Fund	HKG	NIA	Baring Asset Management Limited	Management		MMLIC	
.....0000			20-2548283				12-18 West 55th Street Predevelopment, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	89.000	MMLIC	
.....0000			20-2548283				12-18 West 55th Street Predevelopment, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.700	MMLIC	
.....0000			46-4803557				2 Harbor Shore Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	62.800	MMLIC	
.....0000			46-4803557				2 Harbor Shore Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.200	MMLIC	
.....0000			36-4823011				50 Liberty LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	91.000	MMLIC	
.....0000			36-4823011				50 Liberty LLC	DE	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC	
.....0000			80-0948028				One Harbor Shore LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	91.000	MMLIC	
.....0000			80-0948028				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC	
.....0000			45-5257904				21 West 86 LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	96.900	MMLIC	
.....0000			45-5257904				21 West 86 LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.100	MMLIC	

13.10

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....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				CHC/RFP VI Core LLC	..DE	.....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	..DE	.....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			46-5001122				CREA 330 Third LLC	..DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	..92.000	.....MMLIC	
.....0000			46-5001122				CREA 330 Third LLC	..DE	.....NIA	C.M. Life Insurance Company	Ownership	..8.000	.....MMLIC	
.....0000			46-4367364				CREA FIM 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	..67.000	.....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	..60.000	.....MMLIC	
.....0000			20-3347091				Fan Pier Development LLC	..DE	.....NIA	C.M. Life Insurance Company	Ownership	..5.900	.....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			46-5347643				MMI/Hines Harrison LLC	..DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	..82.800	.....MMLIC	
.....0000			46-5347643				MMI/Hines Harrison LLC	..DE	.....NIA	C.M. Life Insurance Company	Ownership	..7.200	.....MMLIC	
.....0000			46-4077059				MM Woodfield Martingale LLC	..DE	.....NIA	Massachusetts Mutual Life Insurance Company	Ownership	..80.400	.....MMLIC	
.....0000			46-4077059				MM Woodfield Martingale LLC	..DE	.....NIA	C.M. Life Insurance Company	Ownership	..19.600	.....MMLIC	
.....0000							Salomon Brothers Commercial Mortgage Trust 2001-MM	..DE	.....NIA	Cornerstone 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	

13.11

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	72.900	MMLIC	
.....0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	C.M. Life Insurance Company	Ownership	7.200	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			00	MassMutual Barings Dynamic Allocation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.600	MMLIC	
.....0000			51-0529328		0000927972	00	MassMutual Premier Main Street Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	40.300	MMLIC	
.....0000			26-3229251		0000927972	00	MassMutual Premier Strategic Emerging Markets Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	19.300	MMLIC	
.....0000			04-3277550		0000927972	00	MassMutual Premier Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.800	MMLIC	
.....0000			14-1980900		0000916053	00	MassMutual Select Diversified International Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	51.500	MMLIC	
.....0000			01-0821120		0000916053	00	MassMutual Select Diversified Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	17.500	MMLIC	
.....0000			04-3512593		0000916053	00	MassMutual Select Fundamental Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	16.200	MMLIC	
.....0000			04-3513019		0000916053	00	MassMutual Select Large Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.....0000			42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.100	MMLIC	
.....0000			02-0769954		0000916053	00	MassMutual Select Small Capital Value Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	24.600	MMLIC	
.....0000			04-3584140		0000916053	00	MassMutual Select Small Company Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	44.200	MMLIC	
.....0000			46-4257056		0000067160		MML Series International Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	8.000	MMLIC	
.....0000			47-3517233		0001317146		MML Series II Asset Momentum Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.200	MMLIC	
.....0000			47-3529636		0001317146		MML Series II Dynamic Bond Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.700	MMLIC	
.....0000			47-3544629		0001317146		MML Series II Equity Rotation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MMLIC	

13.12

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual 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
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)	*
.....0000			47-3559064		0001317146		MML Series II Special Situations Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.900	MMLIC	
.....0000			46-3289207		0000916053		MassMutual RetireSMART 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	28.400	MMLIC	
.....0000			47-5326235		0000916053		MassMutual RetireSMART 2060 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
.....0000			45-1618155		0000916053		MassMutual RetireSMART Conservative Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	85.000	MMLIC	
.....0000			45-1618222		0000916053		MassMutual RetireSMART Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.300	MMLIC	
.....0000			45-1618262		0000916053		MassMutual RetireSMART Moderate Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	68.500	MMLIC	
.....0000			45-1618046		0000916053		MassMutual RetireSMART Moderate Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.400	MMLIC	
.....0000			45-3417590		0001530245		Oppenheimer Global High Yield Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
.....0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	46.100	MMLIC	
.....0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	C.M. Life Insurance Company	Ownership	3.800	MMLIC	
.....0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
.....0000			47-3676235				Oppenheimer Global Multi-Asset Growth Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
.....0000			47-1714929				Oppenheimer Global Multi-Asset Income Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
.....0000			47-4835759				Oppenheimer Small Cap Value Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
.....0000			47-3987967				Oppenheimer SteelPath Panoramic Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	

Asterisk	Explanation
1	Massachusetts Mutual Life Insurance Company owns 1.09% 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 Loan Strategies Fund, L.P.
4	Debt investors own 4.1% and includes only Babson Capital Loan Strategies Fund, L.P.
5	Debt investors own 44.4% and includes only Connecticut Valley Structured Credit CDO III, Ltd.
6	Debt investors own 55.1% and includes only Babson Capital Loan Strategies Fund, L.P.
7	Debt investors own 7.7% and includes only Babson Capital Loan Strategies Fund, L.P.
8	Debt investors own 4.3% and includes only Great Lakes III, L.P.
9	Debt investors own 5.4% and includes only Great Lakes III, L.P.
10	Debt investors own 2.0% and includes only Great Lakes III, L.P.
11	Debt investors own 3.8% and includes only Great Lakes III, L.P.

# SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

The following supplemental reports are required to be filed as part of your 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.

	Response
1. Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement? .....	NO
2. Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement? .....	NO
3. Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC? .....	NO
4. 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? .....	NO
5. 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? .....	NO
6. 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? .....	NO
7. 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? .....	NO

Explanation:

1. Not Required
2. Not Required
3. Not Required
4. Not Required
5. Not Required
6. Not Required
7. Not Required

Bar Code:

1. Trusteed Surplus Statement [Document Identifier 490]
2. Medicare Part D Coverage Supplement [Document Identifier 365]
3. Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445]
4. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 446]
5. Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447]
6. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448]
7. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449]





**OVERFLOW PAGE FOR WRITE-INS**

## Additional Write-ins for Assets Line 25

	Current Statement Date			4 December 31 Prior Year Net Admitted Assets
	1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	
2504. Fully refundable deposits, prepayments and other miscellaneous .....	84,677,992	56,912,674	27,765,318	67,948,505
2505. Pension plan asset .....	680,962,125	680,962,125		
2506. Cash advances to agents .....	152,050,761	152,050,761		454,517
2507. Commissions and expenses on long-term lease .....	56,493,993	56,493,993		
2508. Intangible assets .....	1,738,889	1,738,889		
2509. Bills receivable .....	309,146	309,146		
2597. Summary of remaining write-ins for Line 25 from overflow page	976,232,906	948,467,588	27,765,318	68,403,022

## Additional Write-ins for Liabilities Line 25

	1 Current Statement Date	2 December 31 Prior Year
2504. Funds awaiting escheat and other miscellaneous .....	59,426,274	59,442,056
2505. Deferred liability .....	22,118,830	22,951,063
2597. Summary of remaining write-ins for Line 25 from overflow page	81,545,104	82,393,119

## Additional Write-ins for Summary of Operations Line 27

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
2704. Miscellaneous charges to operations .....	3,935,276	14,932,614	28,650,573
2797. Summary of remaining write-ins for Line 27 from overflow page	3,935,276	14,932,614	28,650,573

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE A - VERIFICATION**

Real Estate

	1 Year to Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year .....	928,176,765	775,877,372
2. Cost of acquired:		
2.1 Actual cost at time of acquisition .....	3,139,172	67,771,032
2.2 Additional investment made after acquisition .....	108,219,293	294,221,232
3. Current year change in encumbrances .....	(23,532,826)	(54,626,229)
4. Total gain (loss) on disposals .....	(626,352)	50,196,528
5. Deduct amounts received on disposals .....	3,986,096	110,006,251
6. Total foreign exchange change in book/adjusted carrying value .....		
7. Deduct current year's other than temporary impairment recognized .....		
8. Deduct current year's depreciation .....	50,997,755	95,256,919
9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) .....	960,392,201	928,176,765
10. Deduct total nonadmitted amounts .....		
11. Statement value at end of current period (Line 9 minus Line 10) .....	960,392,201	928,176,765

**SCHEDULE B - VERIFICATION**

Mortgage Loans

	1 Year to Date	2 Prior Year Ended December 31
1. Book value/recorded investment excluding accrued interest, December 31 of prior year .....	22,007,729,394	19,356,684,887
2. Cost of acquired:		
2.1 Actual cost at time of acquisition .....	1,244,355,241	4,885,057,024
2.2 Additional investment made after acquisition .....	175,558,918	411,061,150
3. Capitalized deferred interest and other .....	19,474,087	37,046,929
4. Accrual of discount .....	1,547,736	1,777,987
5. Unrealized valuation increase (decrease) .....		
6. Total gain (loss) on disposals .....	(2,663,762)	(2,990,144)
7. Deduct amounts received on disposals .....	1,660,326,165	2,574,694,271
8. Deduct amortization of premium and mortgage interest points and commitment fees .....	(152,020)	8,607,105
9. Total foreign exchange change in book value/recorded investment excluding accrued interest .....	(69,407,667)	(92,566,108)
10. Deduct current year's other than temporary impairment recognized .....	6,688,012	5,040,955
11. Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) .....	21,709,731,790	22,007,729,394
12. Total valuation allowance .....		
13. Subtotal (Line 11 plus Line 12) .....	21,709,731,790	22,007,729,394
14. Deduct total nonadmitted amounts .....		
15. Statement value at end of current period (Line 13 minus Line 14) .....	21,709,731,790	22,007,729,394

**SCHEDULE BA - VERIFICATION**

Other Long-Term Invested Assets

	1 Year to Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year .....	7,535,417,690	7,052,880,574
2. Cost of acquired:		
2.1 Actual cost at time of acquisition .....	198,341,986	1,868,141,079
2.2 Additional investment made after acquisition .....	655,310,840	1,599,048,361
3. Capitalized deferred interest and other .....		
4. Accrual of discount .....		
5. Unrealized valuation increase (decrease) .....	118,778,242	519,745,996
6. Total gain (loss) on disposals .....	(124,748)	(2,275,272)
7. Deduct amounts received on disposals .....	1,503,074,253	3,427,634,382
8. Deduct amortization of premium and depreciation .....	174,123	9,059,677
9. Total foreign exchange change in book/adjusted carrying value .....	(3,609,060)	(44,489,630)
10. Deduct current year's other than temporary impairment recognized .....	3,398,101	20,939,360
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) .....	6,997,468,473	7,535,417,690
12. Deduct total nonadmitted amounts .....	52,808,290	62,151,320
13. Statement value at end of current period (Line 11 minus Line 12) .....	6,944,660,183	7,473,266,370

**SCHEDULE D - VERIFICATION**

Bonds and Stocks

	1 Year to Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value of bonds and stocks, December 31 of prior year .....	89,179,507,736	84,372,279,178
2. Cost of bonds and stocks acquired .....	13,368,777,235	20,375,381,082
3. Accrual of discount .....	178,878,329	458,566,389
4. Unrealized valuation increase (decrease) .....	1,553,434,329	16,656,914
5. Total gain (loss) on disposals .....	(79,223,247)	187,514,199
6. Deduct consideration for bonds and stocks disposed of .....	6,822,509,299	15,608,173,222
7. Deduct amortization of premium .....	90,491,924	196,922,755
8. Total foreign exchange change in book/adjusted carrying value .....	(168,478,893)	(230,339,878)
9. Deduct current year's other than temporary impairment recognized .....	60,726,214	195,454,171
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) .....	97,059,168,052	89,179,507,736
11. Deduct total nonadmitted amounts .....		
12. Statement value at end of current period (Line 10 minus Line 11) .....	97,059,168,052	89,179,507,736

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE D - PART 1B**

Showing the Acquisitions, Dispositions and Non-Trading Activity  
During the Current Quarter for all Bonds and Preferred Stock by NAIC Designation

NAIC Designation	1 Book/Adjusted Carrying Value Beginning of Current Quarter	2 Acquisitions During Current Quarter	3 Dispositions During Current Quarter	4 Non-Trading Activity During Current Quarter	5 Book/Adjusted Carrying Value End of First Quarter	6 Book/Adjusted Carrying Value End of Second Quarter	7 Book/Adjusted Carrying Value End of Third Quarter	8 Book/Adjusted Carrying Value December 31 Prior Year
<b>BONDS</b>								
1. NAIC 1 (a) .....	47,011,681,439	4,243,843,871	2,483,556,755	(285,809,671)	47,011,681,439	48,486,158,884		45,775,594,761
2. NAIC 2 (a) .....	30,291,835,917	22,603,842,129	22,120,469,661	41,586,113	30,291,835,917	30,816,794,498		29,888,287,639
3. NAIC 3 (a) .....	3,556,664,489	914,639,409	722,204,361	(86,715,522)	3,556,664,489	3,662,384,015		3,480,739,106
4. NAIC 4 (a) .....	2,419,060,038	445,385,317	177,169,444	(56,402,014)	2,419,060,038	2,630,873,897		2,147,858,102
5. NAIC 5 (a) .....	909,243,722	29,586,133	77,777,893	165,234,848	909,243,722	1,026,286,810		766,947,118
6. NAIC 6 (a) .....	431,035,506	9,241,094	34,413,261	39,560,737	431,035,506	445,424,076		361,717,484
7. Total Bonds	84,619,521,111	28,246,537,953	25,615,591,375	(182,545,509)	84,619,521,111	87,067,922,180		82,421,144,210
<b>PREFERRED STOCK</b>								
8. NAIC 1 .....	165,500,000				165,500,000	165,500,000		212,650,000
9. NAIC 2 .....	154,824,887	29,099,509		(9,908,799)	154,824,887	174,015,597		177,002,528
10. NAIC 3 .....	123,000,000				123,000,000	123,000,000		123,000,000
11. NAIC 4 .....	546,872	13,258,889		506,805	546,872	14,312,566		546,872
12. NAIC 5 .....	4,256,473		2,433,928	(541,693)	4,256,473	1,280,852		4,261,033
13. NAIC 6 .....	14,844,150			(3)	14,844,150	14,844,147		15,489,216
14. Total Preferred Stock	462,972,382	42,358,398	2,433,928	(9,943,690)	462,972,382	492,953,162		532,949,649
15. Total Bonds and Preferred Stock	85,082,493,493	28,288,896,351	25,618,025,303	(192,489,199)	85,082,493,493	87,560,875,342		82,954,093,859

(a) Book/Adjusted Carrying Value column for the end of the current reporting period includes the following amount of non-rated short-term and cash equivalent bonds by NAIC designation: NAIC 1 \$ 5,725,985 ; NAIC 2 \$ 1,880,695,906 ; NAIC 3 \$ 619,494,460 ; NAIC 4 \$ ; NAIC 5 \$ ; NAIC 6 \$

**SCHEDULE DA - PART 1**

## Short-Term Investments

	1	2	3	4	5
	Book/Adjusted Carrying Value	Par Value	Actual Cost	Interest Collected Year-to-Date	Paid for Accrued Interest Year-to-Date
9199999 Totals	679,250,337	xxx	677,898,336		

**SCHEDULE DA - VERIFICATION**

## Short-Term Investments

	1	2
	Year To Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year .....	167,854,960	371,463,818
2. Cost of short-term investments acquired .....	1,145,618,404	1,023,794,253
3. Accrual of discount .....	2,600,683	1,017,345
4. Unrealized valuation increase (decrease) .....		
5. Total gain (loss) on disposals .....	24,745	9,449
6. Deduct consideration received on disposals .....	636,848,455	1,228,429,905
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) .....	679,250,337	167,854,960
11. Deduct total nonadmitted amounts .....		
12. Statement value at end of current period (Line 10 minus Line 11)	679,250,337	167,854,960

**SCHEDULE DB - PART A - VERIFICATION**

Options, Caps, Floors, Collars, Swaps and Forwards

1. Book/Adjusted Carrying Value, December 31, prior year (Line 9, prior year)	3,427,737,410
2. Cost Paid/(Consideration Received) on additions	257,676,453
3. Unrealized Valuation increase/(decrease)	805,044,245
4. Total gain (loss) on termination recognized	74,793,189
5. Considerations received/(paid) on terminations	303,913,082
6. Amortization	5,684
7. Adjustment to the Book/Adjusted Carrying Value of hedged item	
8. Total foreign exchange change in Book/Adjusted Carrying Value	
9. Book/Adjusted Carrying Value at End of Current Period (Lines 1+2+3+4-5+6+7+8)	4,261,343,898
10. Deduct nonadmitted assets	
11. Statement value at end of current period (Line 9 minus Line 10)	4,261,343,898

**SCHEDULE DB - PART B - VERIFICATION**

Futures Contracts

1. Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)	
2. Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cumulative Cash Change column)	
3.1 Add:	
Change in variation margin on open contracts - Highly Effective Hedges	
3.11 Section 1, Column 15, current year to date minus	
3.12 Section 1, Column 15, prior year	
Change in variation margin on open contracts - All Other	
3.13 Section 1, Column 18, current year to date minus	268,217,076
3.14 Section 1, Column 18, prior year	7,584,764
	260,632,312
	260,632,312
3.2 Add:	
Change in adjustment to basis of hedged item	
3.21 Section 1, Column 17, current year to date minus	
3.22 Section 1, Column 17, prior year	
Change in amount recognized	
3.23 Section 1, Column 19, current year to date minus	268,217,076
3.24 Section 1, Column 19, prior year	7,584,764
	260,632,312
	260,632,312
3.3 Subtotal (Line 3.1 minus Line 3.2)	
4.1 Cumulative variation margin on terminated contracts during the year	179,103,146
4.2 Less:	
4.21 Amount used to adjust basis of hedged item	171,518,382
4.22 Amount recognized	171,518,382
4.3 Subtotal (Line 4.1 minus Line 4.2)	7,584,764
5. Dispositions gains (losses) on contracts terminated in prior year:	
5.1 Total gain (loss) recognized for terminations in prior year	
5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year	(7,584,764)
6. Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)	
7. Deduct total nonadmitted amounts	
8. Statement value at end of current period (Line 6 minus Line 7)	

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	2	50,000,000	4,000,000	12,492,256	10/01/2012	10/01/2042	Interest Rate Swaps		8,501,472	27965F-AD-4	Edens & Avant Investments LP Gtd Senior Note Series A Tr D	2	4,000,000	3,990,784
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	2		28,634,211	28,970,912	10/01/2012	10/01/2042	Interest Rate Swaps			758750-AA-2	Regal Beloit Corporation Senior Note Ser 2007ATranche B	2	28,634,211	28,970,912
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	2		11,970,000	12,320,000	10/01/2012	10/01/2042	Interest Rate Swaps			69350K-AA-4	PNC Preferred Funding Trust II Unsecured Bond	2	11,970,000	12,320,000
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	2		11,042,062	10,530,000	10/01/2012	10/01/2042	Interest Rate Swaps			320808-AD-0	First Maryland Capital I Limited Guarantee Note	2	11,042,062	10,530,000
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3	50,000,000	4,546,527	12,834,993	10/01/2012	10/01/2042	Interest Rate Swaps		8,434,747	38137A-AG-8	Goldentree Loan Opp VI Ltd Sr Secd Deferrable Nt Class C	1	4,546,527	4,400,246
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		6,399,136	6,382,714	10/01/2012	10/01/2042	Interest Rate Swaps			67818N-ZZ-5	SASOL CHEMICALS (USA) LLC	2	6,399,136	6,382,714
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		7,521,940	7,510,657	10/01/2012	10/01/2042	Interest Rate Swaps			77277L-A7-2	Rockall CLO BV Variable Funding Note- USD	1	7,521,940	7,510,657
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		4,949,280	4,492,105	10/01/2012	10/01/2042	Interest Rate Swaps			U8270Y-ZZ-4	SILVER STATE SOLAR SOUTH	2	4,949,280	4,492,105
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		1,900,350	1,902,250	10/01/2012	10/01/2042	Interest Rate Swaps			81683U-AF-4	SEMINOLE TRIBE OF FLORIDA	2	1,900,350	1,902,250
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		1,101,319	1,098,224	10/01/2012	10/01/2042	Interest Rate Swaps			48578P-AF-2	KASIMA, LLC	2	1,101,319	1,098,224
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		13,000,000	12,856,233	10/01/2012	10/01/2042	Interest Rate Swaps			14889K-AC-6	Catamaran CLO Ltd Series 2015-1A Class B	1	13,000,000	12,856,233
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	3		12,920,000	12,844,211	10/01/2012	10/01/2042	Interest Rate Swaps			55818Y-AE-1	Madison Park Funding Ltd Series 2015-17A Class B	1	12,920,000	12,844,211
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	264,000,000	16,546,411	59,291,276	11/29/2012	11/29/2042	Interest Rate Swaps		43,680,300	87244D-AC-8	Wind River CLO Ltd Series 2013-1A Class A2	1	16,546,411	15,610,976
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,297,001	17,685,236	11/29/2012	11/29/2042	Interest Rate Swaps			87244D-AA-2	Wind River CLO Ltd Series 2013-1A Class A1	1	18,297,001	17,685,236
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,627,254	4,450,289	11/29/2012	11/29/2042	Interest Rate Swaps			09625Y-AG-6	Bluemountain CLO 2012-1 Ltd Sr Sec Def Note Class C 144A	1	4,627,254	4,450,289
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		186,208,879	181,366,176	11/29/2012	11/29/2042	Interest Rate Swaps			85815X-AA-1	Steele Creek CLO Ltd Series 2014-1A Class A1	1	186,208,879	181,366,176
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		46,420,340	45,231,627	11/29/2012	11/29/2042	Interest Rate Swaps			14955A-AA-1	CAVALRY CLO LTD Series 2014-4A Class A	1	46,420,340	45,231,627
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,092,678	15,559,598	11/29/2012	11/29/2042	Interest Rate Swaps			39808F-AC-2	Greywolf CLO Ltd Series 2014-1A Class A2	1	15,092,678	15,559,598
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	41,372,466	63,213,425	12/27/2012	12/27/2042	Interest Rate Swaps		20,720,739	803066-AA-7	Sapphire Valley CDO I Ltd Sr Note Class A 144A	1	41,372,466	42,492,686
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,429,871	6,382,320	12/27/2012	12/27/2042	Interest Rate Swaps			05618M-AJ-3	Babson CLO Ltd 2014-III Secd Def Mezz Term Nt C C-1	1	6,429,871	6,382,320
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,019,135	1,992,340	12/27/2012	12/27/2042	Interest Rate Swaps			50183X-AG-6	LCM Ltd Partnership Series 11A Class C	1	2,019,135	1,992,340
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,451,949	7,343,618	12/27/2012	12/27/2042	Interest Rate Swaps			449796-AJ-0	I N G Investment Management Series 2006-2A Class C	1	7,451,949	7,343,618
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,498,235	4,370,509	12/27/2012	12/27/2042	Interest Rate Swaps			87154E-AF-7	Symphony CLO XV Ltd Def Mezz NT CL D 144A	1	4,498,235	4,370,509
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,429,316	4,317,355	12/27/2012	12/27/2042	Interest Rate Swaps			15135A-AA-1	Cent CDO Ltd Series 2006-12A Class A	1	4,429,316	4,317,355
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,799,560	2,891,637	12/27/2012	12/27/2042	Interest Rate Swaps			36320P-AC-5	Gale Force 4 CLO Ltd Sr Sec Note Fltg Class B 144A	1	2,799,560	2,891,637
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,096,728	5,998,812	12/27/2012	12/27/2042	Interest Rate Swaps			87158F-AE-3	Symphony CLO Ltd Series 2011-7A Class C	1	6,096,728	5,998,812
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,814,337	6,425,731	12/27/2012	12/27/2042	Interest Rate Swaps			46617Y-AD-5	JFIN CLO LTD Series 2015-1A Class C1	1	6,814,337	6,425,731
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,008,373	6,424,645	12/27/2012	12/27/2042	Interest Rate Swaps			24820R-AA-6	Statoil ASA Senior Unsecured Note	1	5,008,373	6,424,645
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,089,968	4,309,206	12/27/2012	12/27/2042	Interest Rate Swaps			00162L-AW-7	ALM XVI, LTD	1	4,089,968	4,309,206
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,215,694	14,994,976	12/27/2012	12/27/2042	Interest Rate Swaps			053633-AB-9	VERY POINT CLO LTD	1	15,215,694	14,994,976
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	43,800,000	64,339,933	12/27/2012	12/27/2042	Interest Rate Swaps		20,720,739	00900A-AA-6	Aimco Series 2014-AA Class A	1	43,800,000	43,619,194

S105

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,789,538	10,751,310	12/27/2012	12/27/2042	Interest Rate Swaps			14309D-AC-4	Carlyle High Yield Partners Series 2007-10A Class A2B	1	11,789,538	10,751,310
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,500,000	10,399,274	12/27/2012	12/27/2042	Interest Rate Swaps			74982G-AE-1	Race Point VII CLO Ltd. Series 2012-7A Class B	1	10,500,000	10,399,274
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		34,986,635	34,587,630	12/27/2012	12/27/2042	Interest Rate Swaps			26250U-AC-9	Dryden Senior Loan Fund Series 2013-26A Class A	1	34,986,635	34,587,630
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,900,000	4,655,127	12/27/2012	12/27/2042	Interest Rate Swaps			67590B-AE-0	Octagon Inv Partners XVI Ltd Series 2013-1A Class C1	1	4,900,000	4,655,127
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	11,700,162	32,518,759	12/28/2012	12/28/2042	Interest Rate Swaps		20,740,291	38136B-AG-7	Goldentree Loan Opp III Ltd Sr Secured Nt Class A-1B-J	1	11,700,162	11,778,468
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,961,092	14,826,165	12/28/2012	12/28/2042	Interest Rate Swaps			55817U-AB-6	Madison Park Funding Ltd Series 2007-4A Class A1B	1	14,961,092	14,826,165
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,510,757	8,330,612	12/28/2012	12/28/2042	Interest Rate Swaps			26828C-AC-2	ECP CLO Ltd Series 2012-4A Class A2	1	8,510,757	8,330,612
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,153,230	8,886,187	12/28/2012	12/28/2042	Interest Rate Swaps			87155M-AC-5	Symphony CLO Ltd Series 2007-5A Class A2	1	9,153,230	8,886,187
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,747,826	6,576,105	12/28/2012	12/28/2042	Interest Rate Swaps			10302V-AG-0	Bowman Park CLO Ltd Series 2014-1A Class C	1	6,747,826	6,576,105
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,962,440	6,879,121	12/28/2012	12/28/2042	Interest Rate Swaps			55818X-AG-8	Madison Park Funding XVI Ltd Sr Secured Deferrable Nt Cl B	1	6,962,440	6,879,121
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,855,533	2,966,847	12/28/2012	12/28/2042	Interest Rate Swaps			05617A-AA-9	Babson CLO Ltd 2007-1 Series 2007-1A Class D1	1	2,855,533	2,966,847
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	49,540,550	12/28/2012	12/28/2042	Interest Rate Swaps			949496-AC-7	WELLFLEET CLO LTD Series 2015-1A Class A1	1	50,000,000	49,540,550
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	34,681,167	54,480,317	12/28/2012	12/28/2042	Interest Rate Swaps		20,740,291	67104L-AA-5	OH Loan Funding Ltd. Series 2013-2A Class A	1	34,681,167	33,740,026
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,150,000	8,966,652	12/28/2012	12/28/2042	Interest Rate Swaps			38137D-AC-1	Goldentree Loan Opp VII Ltd Sr Secured Nt Class B-1 144A	1	9,150,000	8,966,652
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		42,787,158	41,711,460	12/28/2012	12/28/2042	Interest Rate Swaps			92329X-AA-6	Venture XVI CLO Ltd Sr Secd Note Class A-1L 144A	1	42,787,158	41,711,460
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,900,000	17,312,450	12/28/2012	12/28/2042	Interest Rate Swaps			89852T-AC-2	Tryon Park CLO Ltd Series 2013-1A Class A2	1	17,900,000	17,312,450
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	9,325,000	30,070,009	12/28/2012	12/28/2042	Interest Rate Swaps		20,740,291	14310U-AC-3	Carlyle Global Mkt CLO 2014-4 Sr Secd Note Class A-1 Accd	1	9,325,000	9,329,718
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,400,000	5,323,763	12/28/2012	12/28/2042	Interest Rate Swaps			38137D-AG-2	Goldentree Loan Opp VII Ltd Sr Secured Nt Class C-1 144A	1	5,400,000	5,323,763
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,100,000	9,921,099	12/28/2012	12/28/2042	Interest Rate Swaps			09626Y-AC-4	Bluemountain CLO 2013-2 Ltd Sr Secured Note Class B-1 144A	1	10,100,000	9,921,099
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,836,987	6,496,156	12/28/2012	12/28/2042	Interest Rate Swaps			74982L-AE-0	Race Point CLO Ltd. Series 2013-8A Class B	1	6,836,987	6,496,156
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,310,854	11,310,820	12/28/2012	12/28/2042	Interest Rate Swaps			33882W-AA-1	Flatiron CLO Ltd. Series 2011-1A Class A	1	11,310,854	11,310,820
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,404,492	12,707,196	12/28/2012	12/28/2042	Interest Rate Swaps			29108Q-AC-6	Emerson Park CLO Ltd Series 2013-1A Class B1	1	13,404,492	12,707,196
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,610,410	10,399,906	12/28/2012	12/28/2042	Interest Rate Swaps			67091H-AC-5	O H A Loan Funding LTD. Series 2012-1A Class B1	1	10,610,410	10,399,906
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,036,957	4,918,995	12/28/2012	12/28/2042	Interest Rate Swaps			50184V-AG-9	L C M Ltd Partnership Series 14A Class C	1	5,036,957	4,918,995
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,935,818	4,663,965	12/28/2012	12/28/2042	Interest Rate Swaps			46617N-AE-7	JFIN CLO 2014-1I Ltd Sr Secd Deferrable Nt Class B	1	4,935,818	4,663,965
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,230,000	14,036,657	12/28/2012	12/28/2042	Interest Rate Swaps			00163E-AM-4	ALM VI Ltd Sr Secd Note Class A-2-R 144A	1	14,230,000	14,036,657
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,975,000	13,811,954	12/28/2012	12/28/2042	Interest Rate Swaps			55952U-AG-0	Magnetite VI Ltd Sr Secd Note Class B-R 144A	1	13,975,000	13,811,954
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,276,336	1,232,587	12/28/2012	12/28/2042	Interest Rate Swaps			46617E-AC-1	JFIN CLO LTD	1	1,276,336	1,232,587
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	15,292,586	25,138,740	12/28/2012	12/28/2042	Interest Rate Swaps		10,370,145	854432-AA-9	Stanford Street CLO Ltd Series 2014-1A Class A	1	15,292,586	14,768,595
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,581,636	6,878,638	12/28/2012	12/28/2042	Interest Rate Swaps			803066-AG-4	Sapphire Valley CDO I Ltd Deferrable Mezz Note Cl D 144A	1	6,581,636	6,878,638
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,046,533	19,647,656	12/28/2012	12/28/2042	Interest Rate Swaps			09625J-AA-2	Bluemountain CLO 2013-3 Ltd Sr Secured Note Class A 144A	1	20,046,533	19,647,656

S105.1

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,570,000	9,409,023	12/28/2012	12/28/2042	Interest Rate Swaps			568416-BD-2	MARINE PARK CLO LTD Sr Secd	1	9,570,000	9,409,023
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	7,210,351	17,573,564	12/28/2012	12/28/2042	Interest Rate Swaps		10,370,145	15135D-AC-1	Deferrable Nt Cl B-R Cent CDO Ltd Series 2007-14A Class B	1	7,210,351	7,203,419
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,000,000	11,716,956	12/28/2012	12/28/2042	Interest Rate Swaps			03765P-AC-7	APIDOS CLO XXI Sr Secured Note Class A-2 144A	1	12,000,000	11,716,956
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,725,000	11,574,873	12/28/2012	12/28/2042	Interest Rate Swaps			38137P-AE-0	Goldentree Loan Opp X Ltd Sr Secd Note Class B 144A	1	11,725,000	11,574,873
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,250,000	11,081,959	12/28/2012	12/28/2042	Interest Rate Swaps			04013Y-AQ-5	Ares XXIV CLO Ltd Sr Secd Note Class B-1-R	1	11,250,000	11,081,959
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,195,000	11,008,323	12/28/2012	12/28/2042	Interest Rate Swaps			26250D-AS-2	Dryden XXIV Senior Loan Fund Series 2012-24RA Class BR	1	11,195,000	11,008,323
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,467,658	1,436,392	12/28/2012	12/28/2042	Interest Rate Swaps			14311A-AG-7	Carlyle Global Market Strategi Series 2014-5A Class C	2	1,467,658	1,436,392
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	11,835,302	21,663,703	12/28/2012	12/28/2042	Interest Rate Swaps		10,370,145	14310D-AG-2	Carlyle Global Mkt CLO 2013-2 Mezz Secd Def Nt Class C 144A	1	11,835,302	11,293,558
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,761,492	22,984,432	12/28/2012	12/28/2042	Interest Rate Swaps			00164B-AC-1	ALM VII R 2 Ltd Sr Secured Note Class A-2 144A	1	23,761,492	22,984,432
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,625,000	17,467,961	12/28/2012	12/28/2042	Interest Rate Swaps			55952Y-AC-1	Magnetite VIII CLO Ltd Series 2014-8A Class B	1	17,625,000	17,467,961
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	16,830,561	26,823,761	12/28/2012	12/28/2042	Interest Rate Swaps		10,370,145	278287-AA-5	Eaton Vance CDO Ltd Series 2006-8A Class A	1	16,830,561	16,453,616
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,063,301	2,974,923	12/28/2012	12/28/2042	Interest Rate Swaps			871590-AN-8	Symphony CLO Ltd Series 2014-14A Class C1	1	3,063,301	2,974,923
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,803,329	10,695,109	12/28/2012	12/28/2042	Interest Rate Swaps			62953G-AC-5	MZCG Funding 2 Ltd Sr Secured Note Class A-2	1	10,803,329	10,695,109
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,608,894	10,094,144	12/28/2012	12/28/2042	Interest Rate Swaps			44987H-AC-1	VOYA CLO LTD Series 2014-1A Class A2A	1	10,608,894	10,094,144
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,895,740	12/28/2012	12/28/2042	Interest Rate Swaps			43132W-AC-4	Hildene CLO IV Ltd Series 2015-4A Class A2	1	10,000,000	9,895,740
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	7,000,000	16,960,310	12/31/2012	12/31/2042	Interest Rate Swaps		9,959,771	72349B-AE-4	Pinnacle Park CLO Ltd Series 2014-1A Class C	1	7,000,000	7,000,539
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,461,634	15,001,860	12/31/2012	12/31/2042	Interest Rate Swaps			09625Y-AD-3	Bluemountain CLO 2012-1 Ltd Sr Secured Note Class B 144A	1	15,461,634	15,001,860
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,055,854	3,037,531	12/31/2012	12/31/2042	Interest Rate Swaps			55818V-AC-1	Madison Park Funding Ltd 2014-15A Class A2	1	3,055,854	3,037,531
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,902,063	1,837,599	12/31/2012	12/31/2042	Interest Rate Swaps			04014J-AA-2	Ares XXVI CLO Ltd Series 2013-26A Class A	1	1,902,063	1,837,599
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,475,000	9,311,244	12/31/2012	12/31/2042	Interest Rate Swaps			262490-AG-3	Dryden Senior Loan Fund Series 2015-38A Class B	1	9,475,000	9,311,244
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,690,112	8,625,604	12/31/2012	12/31/2042	Interest Rate Swaps			39808P-AC-0	Greywolf CLO Ltd Series 2015-1A Class A2	1	8,690,112	8,625,604
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,625,000	8,454,734	12/31/2012	12/31/2042	Interest Rate Swaps			26829C-AC-1	ECP CLO 2015-7 Ltd Sr Secd Nt Class A-2 144A	1	8,625,000	8,454,734
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	5,836,680	15,343,936	12/31/2012	12/31/2042	Interest Rate Swaps		9,959,771	00248P-AE-6	A Voce CLO Ltd Series 2014-1A Class B	1	5,836,680	5,384,165
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,032,602	3,812,246	12/31/2012	12/31/2042	Interest Rate Swaps			67108F-AG-1	Ozlim Funding Ltd Series 2013-4A Class B	1	4,032,602	3,812,246
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		39,000,000	39,269,568	12/31/2012	12/31/2042	Interest Rate Swaps			223611-AA-5	Cowboys Stadium LP Senior Secured Note	2	39,000,000	39,269,568
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,539,795	1,458,878	12/31/2012	12/31/2042	Interest Rate Swaps			15015P-AB-1	Cedar Creek CLO Ltd Series 2013-1A Class B	1	1,539,795	1,458,878
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,147,765	1,066,175	12/31/2012	12/31/2042	Interest Rate Swaps			40536Y-AG-9	Halycon Loan Investors CLO LTD	1	1,147,765	1,066,175
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		975,449	994,251	12/31/2012	12/31/2042	Interest Rate Swaps			44983W-AD-0	J N G Investment Management Series 2007-5A Class B	1	975,449	994,251
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	37,661,800	46,729,776	12/31/2012	12/31/2042	Interest Rate Swaps		9,959,771	803066-AC-3	Sapphire Valley CDO I Ltd Sr Note Class B 144A	1	37,661,800	36,770,005
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,749,116	6,601,591	12/31/2012	12/31/2042	Interest Rate Swaps			67104L-AC-1	OHA Loan Funding Ltd Series 2013-2A Class C	1	6,749,116	6,601,591
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,559,621	4,364,474	12/31/2012	12/31/2042	Interest Rate Swaps			38137A-AJ-2	Goldentree Loan Opp VI Ltd Sr Secd Deferrable Nt Class D	3	4,559,621	4,364,474

S105.2



STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*AO4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,034,643	4,029,430	12/31/2012	12/31/2042	Interest Rate Swaps			38136G-AE-1	Goldentree Loan Opp IV Ltd Sr Secured Nt Class A-2 144A	1	4,034,643	4,029,430
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	20,973,518	27,775,358	12/31/2012	12/31/2042	Interest Rate Swaps	9,959,771		B000XF-V8-9	St Pauls CLO I B.V. Series 2007-1X Class A	1	20,973,518	17,815,587
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,729,000	5,550,500	12/31/2012	12/31/2042	Interest Rate Swaps			67706H-AG-3	QHA Loan Funding Ltd Series 2013-1A Class C	1	5,729,000	5,550,500
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,582,652	9,879,110	12/31/2012	12/31/2042	Interest Rate Swaps			39808F-AC-2	Greywolf CLO Ltd Series 2014-1A Class A2	1	9,582,652	9,879,110
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,632,979	3,726,912	12/31/2012	12/31/2042	Interest Rate Swaps			803066-AE-9	Sapphire Valley CDO I Ltd Deferrable Mezz Note Cl C 144A	1	3,632,979	3,726,912
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,700,000	3,700,751	12/31/2012	12/31/2042	Interest Rate Swaps			67108B-AC-9	Ozlm Funding Ltd. Series 2012-2A Class A2	1	3,700,000	3,700,751
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,700,000	3,589,018	12/31/2012	12/31/2042	Interest Rate Swaps			24823B-AC-4	Denali Capital CLO X Ltd Series 2013-1A Class A2L	1	3,700,000	3,589,018
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,425,000	5,429,573	12/31/2012	12/31/2042	Interest Rate Swaps			05618P-AJ-6	BABSON CLO LTD. 2016-1 JFIN CLO 2013 Ltd Sr Secd	1	5,425,000	5,429,573
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	9,228,466	18,461,492	12/31/2012	12/31/2042	Interest Rate Swaps	9,959,771		46616K-AE-4	Deferrable Nt Class B	1	9,228,466	8,501,721
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,713,312	11,169,157	12/31/2012	12/31/2042	Interest Rate Swaps			03764D-AD-3	Apidos CDO Series 2013-12A Class C	1	11,713,312	11,169,157
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,600,000	10,504,717	12/31/2012	12/31/2042	Interest Rate Swaps			006897-AE-2	Adirondack Park CLO Ltd. Series 2013-1A Class B	1	10,600,000	10,504,717
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,751,190	12/31/2012	12/31/2042	Interest Rate Swaps			50188Q-AE-1	LCM XIX Ltd Partnership Series 19A Class C	1	10,000,000	9,751,190
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,238,904	11,198,409	12/31/2012	12/31/2042	Interest Rate Swaps			36320D-AA-6	GALAXY XVII CLO, LTD.	1	11,238,904	11,198,409
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	5,078,290	14,683,778	12/31/2012	12/31/2042	Interest Rate Swaps	9,959,771		15136R-AJ-4	Cent CLO 18 Limited Series 2013-18A Class C1	1	5,078,290	4,724,007
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,022,523	6,872,186	12/31/2012	12/31/2042	Interest Rate Swaps			74982G-AC-5	Race Point VII CLO Ltd. Series 2012-7A Class A	1	7,022,523	6,872,186
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,250,000	16,713,991	12/31/2012	12/31/2042	Interest Rate Swaps			27830D-AC-4	Eaton Vance CDO Ltd Series 2014-1A Class B	1	17,250,000	16,713,991
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,068,382	2,966,841	12/31/2012	12/31/2042	Interest Rate Swaps			74982L-AG-5	Race Point CLO Ltd. Series 2013-8A Class C	1	3,068,382	2,966,841
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,750,000	21,669,525	12/31/2012	12/31/2042	Interest Rate Swaps			39808P-AA-4	Greywolf CLO Ltd Series 2015-1A Class A1	1	21,750,000	21,669,525
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	28,325,631	39,076,451	04/09/2013	04/09/2043	Interest Rate Swaps	11,710,818		04014J-AA-2	Ares XXVI CLO Ltd. Series 2013-26A Class A	1	28,325,631	27,365,633
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,019,192	3,199,450	04/09/2013	04/09/2043	Interest Rate Swaps			26249W-AD-7	Dryden Leveraged Loan CDO Series 2006-11A Class A3	1	3,019,192	3,199,450
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,548,633	12,149,190	04/09/2013	04/09/2043	Interest Rate Swaps			14954W-AC-0	Cavalry CLO Ltd Series 2013-3A Class B	1	12,548,633	12,149,190
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,225,000	6,224,975	04/09/2013	04/09/2043	Interest Rate Swaps			67106J-AG-5	Oak Hill Credit Partners Series 2014-10A Class C	1	6,225,000	6,224,975
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,322,876	6,142,538	04/09/2013	04/09/2043	Interest Rate Swaps			43132R-AA-9	Hi Idene CLO Ltd Series 2013-1A Class A	1	6,322,876	6,142,538
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	22,400,000	34,467,284	04/09/2013	04/09/2043	Interest Rate Swaps	12,775,438		04941G-AC-2	Atlas Senior Loan Fund III Ltd Series 2013-1A Class B	1	22,400,000	21,691,846
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,150,000	8,966,652	04/09/2013	04/09/2043	Interest Rate Swaps			38137D-AC-1	Goldentree Loan Opp VII Ltd Sr Secured Nt Class B-1 144A	1	9,150,000	8,966,652
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,795,388	3,650,237	04/09/2013	04/09/2043	Interest Rate Swaps			09625Y-AG-6	Bluemountain CLO 2012-1 Ltd Sr Sec Def Note Class C 144A	1	3,795,388	3,650,237
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,000,000	22,594,395	04/09/2013	04/09/2043	Interest Rate Swaps			09626U-AC-2	Bluemountain CLO 2013-1 Ltd Sr Secured Note Class A-2 144A	1	23,000,000	22,594,395
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,008,621	2,889,513	04/09/2013	04/09/2043	Interest Rate Swaps			131248-AE-6	Callidus Debt Partners CDO Fnd Series 6A Class A2	1	3,008,621	2,889,513
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	15,984,064	27,611,792	04/09/2013	04/09/2043	Interest Rate Swaps	11,669,360		38136B-AE-2	Goldentree Loan Opp III Ltd Series 2007-3A Class A1BS	1	15,984,064	15,942,432
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,857,653	7,673,632	04/09/2013	04/09/2043	Interest Rate Swaps			50184V-AG-9	L C M Ltd Partnership Series 14A Class C	1	7,857,653	7,673,632
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,100,000	17,039,671	04/09/2013	04/09/2043	Interest Rate Swaps			55818P-AC-4	Madison Park Funding Ltd Series 2014-12A Class B1	1	17,100,000	17,039,671

S105.3

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,500,000	12,430,400	04/09/2013	04/09/2043	Interest Rate Swaps			501886-AE-3	LCM XVIII Ltd Partnership Sr Nt Class B-1 144A	1	12,500,000	12,430,400
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,130,373	2,975,348	04/09/2013	04/09/2043	Interest Rate Swaps			67104L-AB-3	OH Loan Funding Ltd. Series 2013-2A Class B	1	3,130,373	2,975,348
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		55,000,000	20,574,598	04/09/2013	04/09/2043	Interest Rate Swaps		11,669,360	27829K-AE-7	Eaton Vance CDO Ltd Series 2007-10A Class B2	1	20,574,598	19,472,166
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,100,000	2,062,967	04/09/2013	04/09/2043	Interest Rate Swaps			09626U-AC-2	Bluemountain CLO 2013-1 Ltd Sr Secured Note Class A-2 144A	1	2,100,000	2,062,967
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,125,953	3,042,269	04/09/2013	04/09/2043	Interest Rate Swaps			50184V-AC-8	L C M Ltd Partnership Series 14A Class A	1	3,125,953	3,042,269
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,610,000	8,557,677	04/09/2013	04/09/2043	Interest Rate Swaps			860444-AC-2	Stewart Park CLO Ltd Sr Secured Note Class B 144A	1	8,610,000	8,557,677
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,602,352	8,221,826	04/09/2013	04/09/2043	Interest Rate Swaps			26829C-AJ-6	ECP CLO 2015-7 Ltd Sr Secd Deferrable Nt Cl B-1	1	8,602,352	8,221,826
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	7,347,420	04/09/2013	04/09/2043	Interest Rate Swaps			568416-BB-6	MARINE PARK CLO LTD Sr Secd Note Class A-2-R 144A	1	7,500,000	7,347,420
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,915,930	04/09/2013	04/09/2043	Interest Rate Swaps			50188Q-AC-5	LCM XIX Ltd Partnership Series 19A Class B	1	7,000,000	6,915,930
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,825,000	4,811,152	04/09/2013	04/09/2043	Interest Rate Swaps			89473L-AB-0	TREMAN PARK CLO LTD Sr Secd Nt Class B-1 144A	1	4,825,000	4,811,152
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		55,000,000	28,571,639	04/09/2013	04/09/2043	Interest Rate Swaps		11,824,599	67110H-AA-6	QZLM, LTD.	1	28,571,639	28,812,960
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,972,157	16,387,115	04/09/2013	04/09/2043	Interest Rate Swaps			54303P-AB-1	Longfellow Place CLO LTD Series 2013-1A Class B	1	16,972,157	16,387,115
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,191,979	18,949,735	04/09/2013	04/09/2043	Interest Rate Swaps			36319D-AE-1	Galaxy XI CLO Ltd Senior Note Class B 144A	1	19,191,979	18,949,735
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		60,000,000	38,010,549	04/09/2013	04/09/2043	Interest Rate Swaps		12,899,563	04941G-AA-6	Atlas Senior Loan Fund III Ltd Series 2013-1A Class A	1	38,010,549	37,515,158
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,274,520	24,671,134	04/09/2013	04/09/2043	Interest Rate Swaps			14310G-AA-8	Carlyle Global Mkt CLO 2013-3 Sr Secd Note Class A-1 144A	1	25,274,520	24,671,134
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	55,800,000	04/09/2013	04/09/2043	Interest Rate Swaps		10,759,802	54303P-AA-3	Longfellow Place CLO LTD Series 2013-1A Class A	1	55,800,000	55,222,805
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	55,800,000	04/09/2013	04/09/2043	Interest Rate Swaps		10,759,802	54303P-AA-3	Longfellow Place CLO LTD Series 2013-1A Class A	1	55,800,000	55,222,805
92553PA*3	Viacom, Inc. Senior Note	2		20,000,000	23,815,132	12/20/2013	03/20/2019	5 Yr Credit Default Swap	315,132	184,923	Q3915#-AB-2	Fletcher Building Intl LP Gtd Senior Note Series B	2	23,500,000	26,159,190
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		100,000,000	112,122,615	03/05/2014	03/05/2034	Interest Rate Swaps		26,900,357	872455-AA-8	TICP CLO Ltd Series 2014-1A Class A1	1	112,122,615	108,926,180
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		100,000,000	101,950,576	03/05/2014	03/05/2034	Interest Rate Swaps		26,932,356	854432-AA-9	Stanford Street CLO Ltd Series 2014-1A Class A	1	101,950,576	98,457,300
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,179,655	4,426,400	03/05/2014	03/05/2034	Interest Rate Swaps			40537X-AE-5	Halcyon Loan Advisors Fnd Ltd Series 2013-1A Class B	1	5,179,655	4,426,400
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		150,000,000	164,577,448	05/19/2014	05/19/2044	Interest Rate Swaps		49,382,673	09627L-AA-5	Bluemountain CLO 2014-1 Ltd Sr Secured Note Class A 144A	1	164,577,448	160,786,084
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		125,000,000	85,460,802	05/19/2014	05/19/2034	Interest Rate Swaps		29,119,249	43132R-AA-9	Hi Idene CLO Ltd Series 2013-1A Class A	1	85,460,802	83,023,342
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		40,871,819	37,910,862	05/19/2014	05/19/2034	Interest Rate Swaps			49638W-AD-8	Kingsland Ltd Series 2013-6A Class B	1	40,871,819	37,910,862
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,270,842	12,817,480	05/19/2014	05/19/2034	Interest Rate Swaps			26249E-AC-9	Dryden Senior Loan Fund Series 2014-31A Class B	1	13,270,842	12,817,480
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		150,000,000	156,000,000	05/19/2014	05/19/2044	Interest Rate Swaps		49,722,499	05363U-AC-7	Avery Point CLO Ltd Series 2014-1A Class A	1	156,000,000	155,503,920
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		150,000,000	149,750,847	05/19/2014	05/19/2044	Interest Rate Swaps		49,661,504	04941M-AA-3	Atlas Senior Loan Fund Ltd Series 2014-1A Class A	1	149,750,847	149,081,816
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,765,314	8,545,586	05/19/2014	05/19/2044	Interest Rate Swaps			03765D-AE-0	Apidos CDO Series 2014-18A Class B	1	8,765,314	8,545,586
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		150,000,000	142,950,308	05/19/2014	05/19/2044	Interest Rate Swaps		49,243,257	49638W-AB-2	Kingsland Ltd Series 2013-6A Class A1	1	142,950,308	137,720,800
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,470,287	4,401,293	05/19/2014	05/19/2044	Interest Rate Swaps			639107-AE-1	Nautique Funding Ltd Series 2006-1A Class A3	1	4,470,287	4,401,293
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,007,080	4,017,258	05/19/2014	05/19/2044	Interest Rate Swaps			82835A-AE-6	Silverado CLO Ltd Series 2006-2A Class A1J	1	4,007,080	4,017,258

S105.4

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,099,253	11,289,983	05/19/2014	05/19/2044	Interest Rate Swaps			05617W-AA-1	BABSON CLO LTD. 2013-I	1	11,099,253	11,289,983
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	145,567,636	189,986,717	05/19/2014	05/19/2044	Interest Rate Swaps		49,243,257	49638Y-AA-0	Kingsland Ltd Series 2014-7A Class A	1	145,567,636	140,743,460
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,756,913	17,745,270	05/19/2014	05/19/2044	Interest Rate Swaps			36320D-AC-2	Galaxy XVII CLO Ltd Sr Note Class B 144A	1	18,756,913	17,745,270
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	40,836,383	88,725,565	05/19/2014	05/19/2044	Interest Rate Swaps		49,312,965	36248M-AA-5	GT Loan Financing Ltd. Series 2013-1A Class A	1	40,836,383	39,412,600
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		77,000,000	75,875,261	05/19/2014	05/19/2044	Interest Rate Swaps			46617N-AA-5	JFIN CLO 2014-II Ltd Sr Secured Note Class A-1 144A	1	77,000,000	75,875,261
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		32,623,342	31,749,984	05/19/2014	05/19/2044	Interest Rate Swaps			50184V-AC-8	L C M Ltd Partnership Series 14A Class A	1	32,623,342	31,749,984
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,767,366	1,673,598	05/19/2014	05/19/2044	Interest Rate Swaps			87159F-AB-8	Symphony CLO LTD Series 2013-12A Class B1	1	1,767,366	1,673,598
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	122,818,026	168,038,894	05/19/2014	05/19/2044	Interest Rate Swaps		49,330,392	126612-AA-8	CVP Cascade Clo Ltd Series 2013-CLO1 Class A1	1	122,818,026	118,708,502
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		32,776,223	32,322,731	05/19/2014	05/19/2044	Interest Rate Swaps			38137L-AA-7	Goldentree Loan Opp VIII Ltd Sr Secured Nt Class A 144A	1	32,776,223	32,322,731
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	135,000,000	112,263,904	153,438,715	05/19/2014	05/19/2044	Interest Rate Swaps		44,883,565	48274L-AA-9	KVK CLO LTD Series 2014-1A Class A1	1	112,263,904	108,555,150
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		33,725,727	31,813,127	05/19/2014	05/19/2044	Interest Rate Swaps			48274L-AC-5	KVK CLO LTD Series 2014-1A Class B	1	33,725,727	31,813,127
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	85,000,000	94,935,162	113,892,535	05/09/2014	05/09/2034	Interest Rate Swaps		21,283,202	67108L-AA-1	Ozlm Ltd Series 2014-6A Class A1	1	94,935,162	92,609,333
57629*BQ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	67,735,787	86,408,836	06/05/2014	06/05/2044	Interest Rate Swaps		21,156,767	48274H-AA-8	KVK Clo Ltd Series 2013-2A Class A	1	67,735,787	65,252,069
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	132,166,943	168,357,009	07/22/2014	07/22/2044	Interest Rate Swaps		40,524,629	126611-AA-0	CVP Cascade CLO Ltd Series 2014-2A Class A1	1	132,166,943	127,832,380
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	24,400,051	64,139,046	07/22/2014	07/22/2044	Interest Rate Swaps		40,539,222	126611-AA-0	CVP Cascade CLO Ltd Series 2014-2A Class A1	1	24,400,051	23,599,824
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,738,527	22,640,418	07/22/2014	07/22/2044	Interest Rate Swaps			17178N-AC-3	Commercial Indus Finance Corp Series 2007-3A Class A1J	1	22,738,527	22,640,418
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		39,291,679	38,534,434	07/22/2014	07/22/2044	Interest Rate Swaps			87159F-AA-0	Symphony CLO LTD Series 2013-12A Class A	1	39,291,679	38,534,434
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,472,941	24,707,200	07/22/2014	07/22/2044	Interest Rate Swaps			14954W-AA-4	Cavalry CLO Ltd Series 2013-3A Class A	1	25,472,941	24,707,200
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,752,978	7,546,040	04/09/2013	04/09/2043	Interest Rate Swaps			26249B-AA-9	Dryden Senior Loan Fund Series 2013-30A Class A	1	7,752,978	7,546,040
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,250,462	2,249,953	04/09/2013	04/09/2043	Interest Rate Swaps			26249K-AE-1	Dryden 36 Senior Loan Fund Sr Secd Deferrable Nt Class C	1	2,250,462	2,249,953
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	7,424,235	04/09/2013	04/09/2043	Interest Rate Swaps			26250J-AB-6	Dryden Senior Loan Fund Series 2012-25A Class B1	1	7,500,000	7,424,235
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	39,085,986	78,573,115	07/22/2014	07/22/2044	Interest Rate Swaps		40,539,222	87247C-AA-1	TICP CLO II Ltd Sr Secured Note Class A-1A	1	39,085,986	38,033,893
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,035,471	8,839,709	07/22/2014	07/22/2044	Interest Rate Swaps			67590B-AA-8	Octagon Inv Partners XVI Ltd Series 2013-1A Class A	1	9,035,471	8,839,709
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,000,000	24,906,325	07/22/2014	07/22/2044	Interest Rate Swaps			05363U-AE-3	Avery Point CLO Ltd Series 2014-1A Class B1	1	25,000,000	24,906,325
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,529,219	24,755,675	07/22/2014	07/22/2044	Interest Rate Swaps			09627L-AC-1	Bluemountain CLO 2014-1 Ltd Sr Secured Note Class B-1 144A	1	25,529,219	24,755,675
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,334,272	9,781,010	07/22/2014	07/22/2044	Interest Rate Swaps			55818K-AG-6	Madison Park Funding Ltd. Series 2013-11A Class B1	1	10,334,272	9,781,010
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,441,334	4,296,751	07/22/2014	07/22/2044	Interest Rate Swaps			03765L-AG-7	Apidos CLO XX Mezzanine Deferrable Note Cl C	1	4,441,334	4,296,751
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,332,270	4,424,679	07/22/2014	07/22/2044	Interest Rate Swaps			05617L-AD-9	Babson CLO Ltd 2012-1 Series 2012-1A Class C	1	4,332,270	4,424,679
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,900,000	5,899,410	07/22/2014	07/22/2044	Interest Rate Swaps			87159F-AC-7	Symphony CLO Ltd Series 2011-7A Class B	1	5,900,000	5,899,410
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,074,241	2,961,516	07/22/2014	07/22/2044	Interest Rate Swaps			48274H-AA-8	KVK Clo Ltd Series 2013-2A Class A	1	3,074,241	2,961,516
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,551,226	1,463,529	07/22/2014	07/22/2044	Interest Rate Swaps			87244D-AC-8	Wind River CLO Ltd Series 2013-1A Class A2	1	1,551,226	1,463,529

S105.5

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	24,943,565	64,583,355	07/22/2014	07/22/2044	Interest Rate Swaps	40,480,850		828428-AA-0	Silvermore Clo Ltd Series 2014-1A Class A1	1	24,943,565	24,102,505
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		24,718,218	23,803,713	07/22/2014	07/22/2044	Interest Rate Swaps			03764D-AB-7	Apidos CDO Series 2013-12A Class B1	1	24,718,218	23,803,713
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,740,550	20,999,132	07/22/2014	07/22/2044	Interest Rate Swaps			49638W-AE-6	Kingsland Ltd Series 2013-6A Class C	1	22,740,550	20,999,132
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,675,320	19,651,420	07/22/2014	07/22/2044	Interest Rate Swaps			67104L-AB-3	QHA Loan Funding Ltd. Series 2013-2A Class B	1	20,675,320	19,651,420
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,622,927	23,251,907	07/22/2014	07/22/2044	Interest Rate Swaps			09627R-AA-2	Bluemountain CLO 2014-3 Ltd Sr Secured Note Class A-1 144A	1	23,622,927	23,251,907
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	14,999,775	07/22/2014	07/22/2044	Interest Rate Swaps			05363U-AJ-2	Avery Point CLO Ltd Series 2014-1A Class C	1	15,000,000	14,999,775
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	23,633,242	63,521,499	07/22/2014	07/22/2044	Interest Rate Swaps	40,495,443		67590R-AC-9	Octagon Loan Funding Ltd Series 2014-1A Class A1	1	23,633,242	23,026,056
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,523,251	22,919,893	07/22/2014	07/22/2044	Interest Rate Swaps			38137D-AA-5	Goldentree Loan Opp VIII Ltd Sr Secured Nt Class A 144A	1	23,523,251	22,919,893
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,916,375	22,167,802	07/22/2014	07/22/2044	Interest Rate Swaps			67108F-AA-4	Ozlm Funding Ltd Series 2013-4A Class A1	1	22,916,375	22,167,802
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,400,000	21,431,536	07/22/2014	07/22/2044	Interest Rate Swap			05363S-AC-2	Avery Point II CLO Limited Series 2013-2A Class B1	1	22,400,000	21,431,536
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,229,735	21,516,917	07/22/2014	07/22/2044	Interest Rate Swap			50183J-AB-8	LOM Ltd Partnership Series 9A Class B	1	22,229,735	21,516,917
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,390,093	19,496,580	07/22/2014	07/22/2044	Interest Rate Swap			43132R-AC-5	Hi Idene CLO Ltd Series 2013-1A Class B1	1	20,390,093	19,496,580
57629*B18	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	30,000,000	22,000,000	31,129,911	08/18/2014	08/18/2044	Interest Rate Swap	9,305,647		72349B-AC-8	Pinnacle Park CLO Ltd Series 2014-1A Class B	1	22,000,000	21,824,264
57629*B18	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,787,475	12,753,583	08/18/2014	08/18/2044	Interest Rate Swap			87155F-AL-0	Symphony CLO Ltd Series 2006-2A Class A3	1	12,787,475	12,753,583
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	20,189,379	34,624,660	08/27/2014	08/27/2044	Interest Rate Swap	15,091,436		26249G-AB-6	Dryden 33 Senior Loan Fund Series 2014-33A Class B	1	20,189,379	19,533,224
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,121,183	19,095,780	08/27/2014	08/27/2044	Interest Rate Swap			872455-AE-0	TICOP CLO Ltd Series 2014-1A Class A2B	1	20,121,183	19,095,780
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	12,895,636	08/27/2014	08/27/2044	Interest Rate Swap			50183U-AH-0	LOM Ltd Partnership Series 10AR Class BR	1	13,000,000	12,895,636
57629*CA7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	19,560,375	34,061,708	08/27/2014	08/27/2044	Interest Rate Swap	15,114,852		38137L-AJ-8	Goldentree Loan Opp VIII Ltd Sr Secured Nt Class B-1 144A	1	19,560,375	18,946,856
57629*CA7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,567,898	18,913,011	08/27/2014	08/27/2044	Interest Rate Swap			67108L-AC-7	Ozlm Ltd Series 2014-6A Class A2A	1	19,567,898	18,913,011
57629*CA7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,900,000	18,798,110	08/27/2014	08/27/2044	Interest Rate Swap			74982N-AB-2	Race Point CLO Ltd. Series 2011-5AR Class BR	1	18,900,000	18,798,110
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	18,650,000	33,338,049	08/27/2014	08/27/2044	Interest Rate Swap	15,056,312		05363X-AE-7	Avery Point CLO Ltd Series 2014-5A Class B	1	18,650,000	18,281,737
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,075,045	18,371,869	08/27/2014	08/27/2044	Interest Rate Swap			03765D-AC-4	Apidos CDO Series 2014-18A Class A2A	1	19,075,045	18,371,869
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,500,000	18,318,071	08/27/2014	08/27/2044	Interest Rate Swap			04941M-AB-1	Atlas Senior Loan Fund Ltd Series 2014-1A Class B	1	18,500,000	18,318,071
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	18,500,000	33,374,197	08/27/2014	08/27/2044	Interest Rate Swap	15,015,333		67106J-AE-0	Oak Hill Credit Partners Series 2014-10A Class B	1	18,500,000	18,358,864
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,862,002	18,117,642	08/27/2014	08/27/2044	Interest Rate Swap			49638Y-AC-6	Kingsland Ltd Series 2014-7A Class B	1	18,862,002	18,117,642
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,561,189	18,414,525	08/27/2014	08/27/2044	Interest Rate Swap			04015B-AC-4	Ares XXXI CLO Ltd Series 2014-31A Class A2	1	18,561,189	18,414,525
57629*CD1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	30,000,000	18,622,646	27,033,973	09/04/2014	09/04/2044	Interest Rate Swap	8,916,503		096260-AC-1	Bluemountain CLO 2014-2 Ltd Sr Secured Note Class B-1 144A	1	18,622,646	18,117,470
57629*CD1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,868,846	15,969,793	09/04/2014	09/04/2044	Interest Rate Swap			14954T-AC-7	Cavalry CLO Ltd Series 2A Class B1	1	16,868,846	15,969,793
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	63,786,309	106,818,017	09/08/2014	09/08/2044	Interest Rate Swap	45,138,954		48274L-AA-9	KVK CLO LTD Series 2014-1A Class A1	1	63,786,309	61,679,063
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,660,113	16,625,140	09/08/2014	09/08/2044	Interest Rate Swap			40536Y-AC-8	Halcyon Loan Investors CLO Ltd Series 2007-2A Class A1S	1	16,660,113	16,625,140
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,959,408	6,920,557	09/08/2014	09/08/2044	Interest Rate Swap			69841B-AC-7	Pangaea CLO Ltd Series 2007-1A Class A2	1	6,959,408	6,920,557

S105.6

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		60,000,000	59,448,660	09/08/2014	09/08/2044	Interest Rate Swap			949496-AC-7	WELLFLEET CLO LTD Series 2015-1A Class A1	1	60,000,000	59,448,660
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,330,000	4,352,694	09/08/2014	09/08/2044	Interest Rate Swap			55954E-AJ-8	MAGNETITE CLO LTD Limerock CLO Series 2014-2A Class B1	1	4,330,000	4,352,694
57629*CF6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	30,000,000	18,492,861	27,629,031	09/17/2014	09/17/2044	Interest Rate Swap		10,279,875	532621-AC-3	Carlisle Global Mkt CLO 2013-4 Sr Secd Note Class A-1 144A	1	18,492,861	17,349,156
57629*CF6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,000,000	17,934,318	09/17/2014	09/17/2044	Interest Rate Swap			14310K-AC-5	Galaxy XVII CLO Ltd Class C	1	18,000,000	17,934,318
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		55,000,000	9,279,458	10/06/2014	10/06/2034	Interest Rate Swap			36320D-AE-8	Deferrab Mezz Floating Madison Park Funding Ltd Series 2014-14A Class C1	1	9,279,458	8,425,271
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,300,000	9,300,000	10/06/2014	10/06/2034	Interest Rate Swap			55818R-AJ-5	Babson CLO Ltd 2013-1 Series 2013-1A Class B	1	9,300,000	9,300,000
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,415,250	9,106,096	10/06/2014	10/06/2034	Interest Rate Swap			05617W-AC-7	Atlas Senior Loan Fund III Ltd Series 2013-1A Class C	1	9,415,250	9,106,096
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,457,669	8,846,269	10/06/2014	10/06/2034	Interest Rate Swap			04941G-AE-8	Dryden 33 Senior Loan Fund Sr Secd Deferrable Nt Class D	3	9,457,669	8,846,269
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,649,470	4,255,598	10/06/2014	10/06/2034	Interest Rate Swap			26249G-AD-2	CHA Loan Funding 2015-1 Ltd Mezz Secd Deferrable Nt Cl D	2	4,649,470	4,255,598
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,252,163	4,013,319	10/06/2014	10/06/2034	Interest Rate Swap			67109B-AJ-3	ALM LOAN FUNDING Series 14-14A Class A2	1	4,252,163	4,013,319
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,113,316	4,029,118	10/06/2014	10/06/2034	Interest Rate Swap			00164K-AC-1	LCM XVIII Ltd Partnership Series 18A Class D	3	4,113,316	4,029,118
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,814,723	3,503,753	10/06/2014	10/06/2034	Interest Rate Swap			50188G-AN-3	Babson CLO Ltd 2015-1 Sr Secd Deferrable Note Cl D-1	2	3,814,723	3,503,753
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,695,330	3,459,403	10/06/2014	10/06/2034	Interest Rate Swap			05616Z-AG-5	FLATIRON CLO LTD Babson CLO 2013-1IA Series 2013-1IA Class A2	1	3,695,330	3,459,403
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,550,000	1,491,156	10/06/2014	10/06/2034	Interest Rate Swap			33883B-AB-4	Babson CLO Ltd 2014-111 Sr Secd Term Note Cl B-1 144A	1	1,550,000	1,491,156
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	17,221,048	45,774,935	10/06/2014	10/06/2044	Interest Rate Swap		29,445,276	05617Y-AC-3	Inwood Park CDO Ltd Series 2006-1A Class B	1	17,221,048	16,329,659
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,823,475	20,474,898	10/06/2014	10/06/2044	Interest Rate Swap			05618M-AE-4	Bluemountain CLO 2014-3 Ltd Sr Sec Def Note Class B 144A	1	20,823,475	20,474,898
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,726,476	9,875,788	10/06/2014	10/06/2044	Interest Rate Swap			46186G-AG-8	Octagon Inv Partners XII Ltd Series 2012-1AR Class B1R	1	9,726,476	9,875,788
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,320,226	9,234,377	10/06/2014	10/06/2044	Interest Rate Swap			09627R-AE-4	Babson CLO Ltd 2014-1 Class A-2 144A	1	9,320,226	9,234,377
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,300,000	5,229,982	10/06/2014	10/06/2044	Interest Rate Swap			67572N-AW-6	A Voce CLO Ltd Series 2014-1A Class A2A	1	5,300,000	5,229,982
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,539,751	12,805,040	10/06/2014	10/06/2044	Interest Rate Swap			05618D-AC-8	Wasatch Ltd Series 2006-1A Class A1B	1	13,539,751	12,805,040
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,097,873	11,297,008	10/06/2014	10/06/2044	Interest Rate Swap			00248P-AC-0	Symphony CLO Ltd Series 2014-14A Class B1	1	12,097,873	11,297,008
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,686,023	9,366,554	10/06/2014	10/06/2044	Interest Rate Swap			93677P-AB-7	FRPF Engine Leasing Ltd Senior Secured Note Series D	1	9,686,023	9,366,554
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,500,000	11,387,703	10/06/2014	10/06/2044	Interest Rate Swap			87159Q-AJ-7	NTC Capital I Unsecured Bond	2	11,500,000	11,387,703
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	175,000,000	60,000,000	108,246,487	10/10/2014	10/10/2044	Interest Rate Swap		48,419,167	67332F-AD-5	Quilen/Frost Capital Trust II Subordinated Note	2	60,000,000	59,827,320
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		26,649,380	26,361,000	10/10/2014	10/10/2044	Interest Rate Swap			629394-AA-5	National City Bank Clev Ohio Senior Subordinated Note	1	26,649,380	26,361,000
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,644,698	19,556,789	10/10/2014	10/10/2044	Interest Rate Swap			230000-AB-7	Bluemountain CLO 2014-1 Ltd Sr Secd Deferrable Nt Class D	1	20,644,698	19,556,789
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		59,862,373	59,975,100	10/10/2014	10/10/2044	Interest Rate Swap			63534P-AF-4	Bluemountain CLO 2013-3 Ltd Sr Secd Deferrable Nt Class D	1	59,862,373	59,975,100
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,817,549	1,745,199	10/10/2014	10/10/2044	Interest Rate Swap			09627L-AJ-6	Babson CLO 2013-1IA Series 2013-1IA Class C	1	1,817,549	1,745,199
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,476,598	4,313,973	10/10/2014	10/10/2044	Interest Rate Swap			09627V-AG-0	Bluemountain CLO 2013-3 Ltd Sr Secd Deferrable Nt Class D	1	4,476,598	4,313,973
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,139,440	2,913,209	10/10/2014	10/10/2044	Interest Rate Swap			05617Y-AG-4	Bluemountain CLO 2013-3 Ltd Sr Secd Deferrable Nt Class D	1	3,139,440	2,913,209
57629*CIJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,714,780	6,471,806	10/10/2014	10/10/2044	Interest Rate Swap			09625J-AF-1		1	6,714,780	6,471,806

S105.7

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,392,923	47,596,200	11/04/2014	11/04/2044	Interest Rate Swap		34,595,823	86482B-AC-5	Sugar Creek CLO Ltd Series 2012-1A Class B	1	13,392,923	13,000,377
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,286,534	12,803,622	11/04/2014	11/04/2044	Interest Rate Swap			12627U-AB-7	COA Summit CLO Ltd Series 2014-1A Class A2	1	13,286,534	12,803,622
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,991,632	12,631,027	11/04/2014	11/04/2044	Interest Rate Swap			69688X-AC-5	Palmer Square CLO Ltd Series 2014-1A Class A2	1	12,991,632	12,631,027
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,500,000	12,123,438	11/04/2014	11/04/2044	Interest Rate Swap			26251B-AC-0	Dryden Senior Loan Fund Series 2013-28A Class A2L	1	12,500,000	12,123,438
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,545,861	4,532,188	11/04/2014	11/04/2044	Interest Rate Swap			81717E-AE-0	Seneca Park CLO Ltd Series 2014-1A Class C	1	4,545,861	4,532,188
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,106,738	13,370,239	11/04/2014	11/04/2044	Interest Rate Swap			29108E-AB-2	Emerson Place CLO LTD Series 2006 - 1A Class B	1	13,106,738	13,370,239
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,125,000	12,060,071	11/04/2014	11/04/2044	Interest Rate Swap			14309Q-AU-5	Carlyle Global Mkt CLO 2012-2 Sr Secd Note Class B-1-R 144A	1	12,125,000	12,060,071
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,528,489	10,804,743	11/04/2014	11/04/2044	Interest Rate Swap			33842R-AB-9	Flagship CLO Series 2006-1A Class B	1	10,528,489	10,804,743
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,526,479	6,189,491	11/04/2014	11/04/2044	Interest Rate Swap			67389E-AC-6	Oaktree CLO Ltd Series 2014-2A Class A2A	1	6,526,479	6,189,491
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,858,329	6,760,873	11/04/2014	11/04/2044	Interest Rate Swap			46616A-AE-6	JFIN CLO 2012 Ltd Note Class B 144A	1	6,858,329	6,760,873
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,980,510	6,005,807	11/04/2014	11/04/2044	Interest Rate Swap			38136E-AD-3	Goldentree Loan Opp IV Ltd Sr Secured Nt Class A-1B-J	1	5,980,510	6,005,807
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,478,754	3,378,015	11/04/2014	11/04/2044	Interest Rate Swap			806713-AD-5	Schiller Park CLO LTD Series 2007-1A Class B	1	3,478,754	3,378,015
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,948,585	5,921,952	11/04/2014	11/04/2044	Interest Rate Swap			43132W-AE-0	Hildene CLO IV Ltd Series 2015-4A Class B	1	5,948,585	5,921,952
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,948,585	5,921,952	11/04/2014	11/04/2044	Interest Rate Swap			46617Y-AB-9	JFIN CLO LTD Series 2015 Class C1	1	5,948,585	5,921,952
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	14,109,478	48,344,731	11/04/2014	11/04/2044	Interest Rate Swap		34,625,236	09627D-AC-9	Bluemountain CLO 2013-4 Ltd Sr Secured Note Class B-1 144A	1	14,109,478	13,719,495
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,138,217	13,829,861	11/04/2014	11/04/2044	Interest Rate Swap			55818R-AG-1	Madison Park Funding Ltd Series 2014-14A Class B	1	14,138,217	13,829,861
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,141,826	13,649,842	11/04/2014	11/04/2044	Interest Rate Swap			14955A-AC-7	CAVALRY CLO LTD Series 2014-4A Class B1	1	14,141,826	13,649,842
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,137,179	13,478,501	11/04/2014	11/04/2044	Interest Rate Swap			27830B-AC-8	Eaton Vance CDO Ltd Series 2013-1A Class A2	1	14,137,179	13,478,501
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,734,845	13,586,096	11/04/2014	11/04/2044	Interest Rate Swap			38136B-AJ-1	Goldentree Loan Opp III Ltd Sr Secured Nt Class A-2 144A	1	13,734,845	13,586,096
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,826,769	13,383,160	11/04/2014	11/04/2044	Interest Rate Swap			88390A-AF-7	Wind River CLO Ltd Series 2014-2A Class B1	1	13,826,769	13,383,160
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,600,000	13,339,438	11/04/2014	11/04/2044	Interest Rate Swap			03764Q-AC-6	Apidos CDO Series 2013-15A Class A2A	1	13,600,000	13,339,438
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,104,699	12,671,165	11/04/2014	11/04/2044	Interest Rate Swap			00191L-AC-6	Ares XXVIII CLO Ltd Class B-1 Sr Floating Rate Nt	1	13,104,699	12,671,165
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,617,005	13,048,683	11/04/2014	11/04/2044	Interest Rate Swap			64129X-AG-4	Neuberger Berman CLO XVI Ltd Sr Secured Note Class B-1	1	13,617,005	13,048,683
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,779,496	10,376,934	11/04/2014	11/04/2044	Interest Rate Swap			05873L-AC-0	Ballyrock Ltd Series 2014-1A Class A2	1	10,779,496	10,376,934
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	12,957,869	47,687,060	11/04/2014	11/04/2044	Interest Rate Swap		34,860,545	67105V-AE-4	CHA Credit Partners IX Ltd Sr Secd Note Class B-1 144A	1	12,957,869	12,826,515
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,884,610	14,142,822	11/04/2014	11/04/2044	Interest Rate Swap			50184V-AE-4	L C M Ltd Partnership Series 14A Class B	1	14,884,610	14,142,822
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	12,506,468	11/04/2014	11/04/2044	Interest Rate Swap			33883B-AB-4	Flatiron CLO Ltd Series 2013 - 1A Class 2	1	13,000,000	12,506,468
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,550,000	14,395,173	11/04/2014	11/04/2044	Interest Rate Swap			09073V-AC-8	Birchwood Park CLO Ltd Series 2014-1A Class B1	1	14,550,000	14,395,173
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,373,883	13,304,881	11/04/2014	11/04/2044	Interest Rate Swap			398080-AC-5	GREYWOLF CLO IV Ltd Sr Secured Note Class A-2 144A	1	13,373,883	13,304,881
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,046,920	13,800,704	11/04/2014	11/04/2044	Interest Rate Swap			04941R-AC-8	Atlas Senior Loan Fund Ltd Series 2014-6A Class B	1	14,046,920	13,800,704
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,035,097	13,764,934	11/04/2014	11/04/2044	Interest Rate Swap			09627R-AC-8	Bluemountain CLO 2014-3 Ltd Sr Secured Note Class A-2 144A	1	14,035,097	13,764,934

S105.8

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,301,978	7,302,241	11/04/2014	11/04/2044	Interest Rate Swap			398080-AE-1	GREYWOLF CLO IV Ltd Sr Secd Deferrable Nt Class B	1	7,301,978	7,302,241
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,526,534	5,454,507	11/04/2014	11/04/2044	Interest Rate Swap			04941G-AA-6	Atlas Senior Loan Fund III Ltd Series 2013-1A Class A	1	5,526,534	5,454,507
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,503,182	4,706,392	11/04/2014	11/04/2044	Interest Rate Swap			803066-AG-4	Sapphire Valley CDO I Ltd Deferrable Mezz Note Cl D 144A	1	4,503,182	4,706,392
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,974,988	14,554,644	11/04/2014	11/04/2044	Interest Rate Swap			08180R-AC-9	Benefit St Partners CLO VII Series 2015-VIIA Class A2	1	14,974,988	14,554,644
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	15,000,000	49,899,648	11/04/2014	11/04/2044	Interest Rate Swap		34,889,958	87155P-AC-8	Symphony CLO Ltd Series 2012-9A Class B	1	15,000,000	15,009,690
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	14,872,305	11/04/2014	11/04/2044	Interest Rate Swap			74982D-AQ-1	Race Point CLO Series 2012-6RA Class BR	1	15,000,000	14,872,305
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,516,855	14,922,796	11/04/2014	11/04/2044	Interest Rate Swap			00900A-AB-4	Aimco Series 2014-AA Class B1	1	15,516,855	14,922,796
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,227,379	14,510,535	11/04/2014	11/04/2044	Interest Rate Swap			854432-AB-7	Stanford Street CLO Ltd Series 2014-1A Class B	1	15,227,379	14,510,535
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,165,075	14,922,345	11/04/2014	11/04/2044	Interest Rate Swap			50183X-AE-1	LM Ltd Partnership Series 11A Class B	1	15,165,075	14,922,345
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,207,865	12,523,510	11/04/2014	11/04/2044	Interest Rate Swap			803066-AE-9	Sapphire Valley CDO I Ltd Deferrable Mezz Note Cl C 144A	1	12,207,865	12,523,510
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,974,326	14,339,332	11/04/2014	11/04/2044	Interest Rate Swap			92912V-AC-9	Voya Clo Ltd Series 2014-2A Class A2	1	14,974,326	14,339,332
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,866,020	14,092,066	11/04/2014	11/04/2044	Interest Rate Swap			67104C-AB-3	Oak Hill Credit Partners Series 2013 - 8A Class B	1	14,866,020	14,092,066
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,831,713	1,999,654	11/04/2014	11/04/2044	Interest Rate Swap			38136T-AC-7	Goldentree Loan Opp V Ltd Sr Secd Deferrable Nt Class C	1	1,831,713	1,999,654
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,958,349	3,017,250	11/04/2014	11/04/2044	Interest Rate Swap			862015-AC-8	Stoney Lane Funding Ltd Series 2007-1A Class A2	1	2,958,349	3,017,250
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,060,000	8,033,039	11/04/2014	11/04/2044	Interest Rate Swap			74983D-AC-1	RACE POINT CLO, LIMITED	1	8,060,000	8,033,039
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	18,409,156	52,161,895	11/04/2014	11/04/2044	Interest Rate Swap		34,978,199	40538C-AG-5	Halcyon Loan Advisors Fnd Ltd Series 2014-1A Class B1	1	18,409,156	17,183,696
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,600,000	16,037,061	11/04/2014	11/04/2044	Interest Rate Swap			05874P-AC-0	Ballyrock CLO 2013-1 Ltd Series 2013-1A Class B	1	16,600,000	16,037,061
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,878,940	16,152,857	11/04/2014	11/04/2044	Interest Rate Swap			04014W-AC-9	Ares XXIX CLO Ltd Series 2014-1A Class A2	1	16,878,940	16,152,857
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,765,698	15,573,568	11/04/2014	11/04/2044	Interest Rate Swap			14309B-AL-8	Carlyle High Yield Partners Series 2006-9A Class A3	1	15,765,698	15,573,568
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,116,587	14,598,435	11/04/2014	11/04/2044	Interest Rate Swap			46617E-AC-1	JFIN CLO 2014 Ltd Sr Secured Note Class B-1	1	15,116,587	14,598,435
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,207,602	14,364,075	11/04/2014	11/04/2044	Interest Rate Swap			87247C-AC-7	TICP CLO II Ltd Sr Secured Note Class A-2A	1	15,207,602	14,364,075
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,394,256	12,683,619	11/04/2014	11/04/2044	Interest Rate Swap			87159F-AB-8	Symphony CLO LTD Series 2013-12A Class B1	1	13,394,256	12,683,619
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,771,683	11,736,634	11/04/2014	11/04/2044	Interest Rate Swap			87154E-AC-4	Symphony CLO XV Ltd SR NT CL B-1 144A	1	11,771,683	11,736,634
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,975,000	13,728,243	11/04/2014	11/04/2044	Interest Rate Swap			26250C-AU-9	Dryden XXIII Senior Loan Fund Series 2012-23RA Class A2R	1	13,975,000	13,728,243
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	25,245,397	60,091,280	11/04/2014	11/04/2044	Interest Rate Swap		35,154,680	87154E-AB-6	Symphony CLO XV Ltd SR NT CL A 144A	1	25,245,397	24,936,600
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,173,493	22,840,334	11/04/2014	11/04/2044	Interest Rate Swap			532621-AA-7	Limerock CLO Series 2014-2A Class A	1	23,173,493	22,840,334
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,751,389	20,887,206	11/04/2014	11/04/2044	Interest Rate Swap			40538C-AC-4	Halcyon Loan Advisors Fnd Ltd Series 2014-1A Class A1	1	21,751,389	20,887,206
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,171,537	24,806,400	11/04/2014	11/04/2044	Interest Rate Swap			053633-AB-9	Avery Point CLO Limited Series 2013-3A Class A	1	25,171,537	24,806,400
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,479,356	3,470,294	11/04/2014	11/04/2044	Interest Rate Swap			38136B-AE-2	Goldentree Loan Opp III Ltd Series 2007-3A Class A1BS	1	3,479,356	3,470,294
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,065,944	13,847,106	11/04/2014	11/04/2044	Interest Rate Swap			38123H-AC-8	Goldentree Loan Opp IX Ltd Sr Secured Nt Class B-1 144A	1	14,065,944	13,847,106
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,488,195	4,157,973	11/04/2014	11/04/2044	Interest Rate Swap			828428-AC-6	Silvermore Clo Ltd Series 2014-1A Class A2	1	4,488,195	4,157,973

S105.9

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,373,580	7,297,709	11/04/2014	11/04/2044	Interest Rate Swap			15135D-AJ-6	Cent CDO Ltd Series 2007-14A Class A2A	1	7,373,580	7,297,709
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,649,189	3,489,251	11/04/2014	11/04/2044	Interest Rate Swap			14311D-AJ-5	CARLYLE GLOBAL MARKET STRATEG Series 2015-1A Class D	2	3,649,189	3,489,251
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	37,238,615	71,605,552	11/04/2014	11/04/2044	Interest Rate Swap		35,125,267	43132V-AA-0	Hildene Clo Ltd Series 2014-3A Class A	1	37,238,615	36,480,285
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		30,396,253	29,765,495	11/04/2014	11/04/2044	Interest Rate Swap			64129X-AC-3	Neuberger Berman CLO XVI Ltd Sr Secured Note Class A-1	1	30,396,253	29,765,495
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,322,967	21,834,650	11/04/2014	11/04/2044	Interest Rate Swap			50181G-AC-4	LCM Ltd Partnership Series 16A Class A	1	22,322,967	21,834,650
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,406,029	9,350,430	11/04/2014	11/04/2044	Interest Rate Swap			50184N-AD-4	LCM Ltd Partnership Series 15A Class C	1	9,406,029	9,350,430
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,762,986	4,676,290	11/04/2014	11/04/2044	Interest Rate Swap			26249B-AE-1	Dryden Senior Loan Fund Series 2013-30A Class C	1	4,762,986	4,676,290
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,801,394	4,564,593	11/04/2014	11/04/2044	Interest Rate Swap			398079-AE-3	Greywolf CLO Ltd. Series 2013-1A Class B	1	4,801,394	4,564,593
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,533,222	4,524,286	11/04/2014	11/04/2044	Interest Rate Swap			14310V-AE-7	Carlyle Global Mkt Strategies Mezzanine Secd Deferrable Cl C Pangaea CLO Ltd Series 2007-1A Class B	1	4,533,222	4,524,286
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,447,729	4,529,206	11/04/2014	11/04/2044	Interest Rate Swap			69841B-AE-3	Voya CLO 2014-4 Ltd Deferrable Note Class C 144A	1	4,447,729	4,529,206
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,526,952	4,243,948	11/04/2014	11/04/2044	Interest Rate Swap			92914R-AG-7	WELLFLEET CLO LTD Series 2015-1A Class A1	2	4,526,952	4,243,948
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	65,000,000	99,586,874	11/04/2014	11/04/2044	Interest Rate Swap		35,184,094	41165G-AA-7	Harbourview CLO VII Ltd Series 7A Class A1	1	65,000,000	64,402,780
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,554,010	4,528,120	11/04/2014	11/04/2044	Interest Rate Swap			09627L-AG-2	Bluemountain CLO 2014-1 Ltd Sr Secd Deferrable Nt Class C	1	4,554,010	4,528,120
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,617,634	22,233,323	11/04/2014	11/04/2044	Interest Rate Swap			92914R-AA-0	Voya CLO 2014-4 Ltd Note Class A-1 144A	1	22,617,634	22,233,323
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,127,821	22,049,912	11/04/2014	11/04/2044	Interest Rate Swap			67706T-AA-0	OH Loan Funding Ltd Series 2014-1A Class A1	1	22,127,821	22,049,912
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,828,422	6,751,620	11/04/2014	11/04/2044	Interest Rate Swap			64128Q-AE-5	Neuberger Berman CLO XVIII Ltd Sr Secd Deferrable Nt Class B	1	6,828,422	6,751,620
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,226,243	9,127,728	11/04/2014	11/04/2044	Interest Rate Swap			26249K-AC-5	Dryden 36 Senior Loan Fund Sr Secured Note Class B 144A	1	9,226,243	9,127,728
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	20,354,743	47,851,258	12/16/2014	12/16/2044	Interest Rate Swap		30,613,372	979JXH-11-5	AUTOSTRADA WIELKOPOLSKA SA	3	20,354,743	17,237,886
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,274,311	15,929,376	12/16/2014	12/16/2044	Interest Rate Swap			U8270Y-ZZ-4	SILVER STATE SOLAR SOUTH Kingsland Ltd Series 2007-5A Class A2B	2	16,274,311	15,929,376
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,359,653	10,592,334	12/16/2014	12/16/2044	Interest Rate Swap			49636R-AL-3	Dryden Senior Loan Fund Series 2013-30A Class B	1	11,359,653	10,592,334
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,509,468	10,923,842	12/16/2014	12/16/2044	Interest Rate Swap			26249B-AC-5	Ballyrock CLO 2013-1 Ltd Series 2013-1A Class C	1	11,509,468	10,923,842
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,491,298	10,518,234	12/16/2014	12/16/2044	Interest Rate Swap			05874P-AE-6	Voya Clo Ltd Series 2014-2A Class B	1	11,491,298	10,518,234
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,605,298	9,194,901	12/16/2014	12/16/2044	Interest Rate Swap			92912V-AG-0	Octagon Inv Partners XVI Ltd Series 2013-1A Class B1	1	9,605,298	9,194,901
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,950,000	10,665,694	12/16/2014	12/16/2044	Interest Rate Swap			67590B-AC-4	Babson CLO Ltd 2012-1 Series 2012-1A Class A2	1	10,950,000	10,665,694
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,125,723	10,972,093	12/16/2014	12/16/2044	Interest Rate Swap			05617L-AB-3	JFIN CLO 2014-11 Ltd Sr Secured Note Class A-2 144A	1	11,125,723	10,972,093
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,246,062	10,677,150	12/16/2014	12/16/2044	Interest Rate Swap			46617N-AC-1	JFIN CLO 2012 Ltd Note Class A2B 144A	1	11,246,062	10,677,150
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,936,088	10,800,724	12/16/2014	12/16/2044	Interest Rate Swap			46616A-AJ-5	LCM Ltd Partnership Series 16A Class B	1	10,936,088	10,800,724
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,775,704	10,461,689	12/16/2014	12/16/2044	Interest Rate Swap			50181G-AE-0	Eaton Vance CDO Ltd Series 2014-1A Class C	1	10,775,704	10,461,689
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,054,643	5,837,497	12/16/2014	12/16/2044	Interest Rate Swap			27830D-AE-0	Carlyle Global Mkt CLO 2013-3 Sr Secd Def Note Class B 144A	1	6,054,643	5,837,497
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,467,282	7,063,178	12/16/2014	12/16/2044	Interest Rate Swap			14310G-AG-5		1	7,467,282	7,063,178

S105.10



STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,850,000	3,788,862	12/16/2014	12/16/2044	Interest Rate Swap			67572N-BA-3	Octagon Inv Partners XII Ltd Series 2012-1AR Class CR	1	3,850,000	3,788,862
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,715,247	3,481,706	12/16/2014	12/16/2044	Interest Rate Swap			461866-AJ-2	Inwood Park CDO Ltd Series 2006-1A Class C	1	3,715,247	3,481,706
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,100,000	8,099,789	12/16/2014	12/16/2044	Interest Rate Swap			001626-AC-4	ALM XIX LTD	1	8,100,000	8,099,789
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	9,000,000	39,078,665	12/16/2014	12/16/2044	Interest Rate Swap		30,259,286	05617W-AE-3	Babson CLO Ltd 2013-I Series 2013-1A Class C	1	9,000,000	8,819,379
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,196,950	6,600,160	12/16/2014	12/16/2044	Interest Rate Swap			46617E-AE-7	JFIN CLO 2014 Ltd Mezz Secd Deferrable Nt Cl C	1	7,196,950	6,600,160
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,047,293	7,000,924	12/16/2014	12/16/2044	Interest Rate Swap			33882W-AE-3	Flatiron CLO Ltd. Series 2011-1A Class C1	1	7,047,293	7,000,924
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,853,714	12/16/2014	12/16/2044	Interest Rate Swap			14310D-AE-7	Carlyle Global Mkt CLO 2013-2 Sr Secd Note Class B 144A	1	7,000,000	6,853,714
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,011,354	2,949,988	12/16/2014	12/16/2044	Interest Rate Swap			09627X-AC-5	Bluemountain CLO 2015-1 Ltd Sr Secured Note Class A-2 144A	1	3,011,354	2,949,988
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,762,279	2,700,243	12/16/2014	12/16/2044	Interest Rate Swap			67091H-AE-1	O H A Loan Funding LTD. Series 2012-1A Class C	1	2,762,279	2,700,243
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,613,624	2,436,512	12/16/2014	12/16/2044	Interest Rate Swap			26249E-AG-0	Dryden Senior Loan Fund Series 2014-31A Class D	1	2,613,624	2,436,512
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,500,000	2,251,745	12/16/2014	12/16/2044	Interest Rate Swap			15132V-AG-5	Cent CLO Ltd Series 2007-15A Class C	2	2,500,000	2,251,745
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,873,552	2,080,830	12/16/2014	12/16/2044	Interest Rate Swap			46615P-AG-9	JFIN CLO 2007 Ltd Deferrable Mezz Note Class D	1	1,873,552	2,080,830
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,748,515	1,845,084	12/16/2014	12/16/2044	Interest Rate Swap			15135A-AD-5	Cent CDO Ltd Series 2006-12A Class D	1	1,748,515	1,845,084
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,053,227	1,980,322	12/16/2014	12/16/2044	Interest Rate Swap			36320P-AG-6	Gale Force 4 CLO Ltd Sr Sec Note Floating Class D	3	2,053,227	1,980,322
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,227,148	6,212,653	12/16/2014	12/16/2044	Interest Rate Swap			92557W-AE-3	VIBRANT CLO IV LTD	1	6,227,148	6,212,653
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		41,400,000	41,291,573	12/16/2014	12/16/2044	Interest Rate Swap			74983D-AA-5	RACE POINT CLO LTD RACEP 2016-10A A	1	41,400,000	41,291,573
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,576,500	17,662,102	12/16/2014	12/16/2044	Interest Rate Swap			94949R-AC-1	Wellfleet CLO Ltd 2016-1A A	1	17,576,500	17,662,102
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,304,748	17,304,210	12/16/2014	12/16/2044	Interest Rate Swap			858102-AD-8	STEELE CREEK CLO LTD STCR 2016-1A A	1	17,304,748	17,304,210
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,880,407	14,674,522	12/16/2014	12/16/2044	Interest Rate Swap			38137L-AA-7	Goldentree Loan Opp VIII Ltd Series 2014-8A Class A	1	14,880,407	14,674,522
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,886,987	7,797,040	12/16/2014	12/16/2044	Interest Rate Swap			26250U-AC-9	Dryden Senior Loan Fund Series 2013-26A Class A	1	7,886,987	7,797,040
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,750,000	13,782,656	12/16/2014	12/16/2044	Interest Rate Swap			02014P-AC-8	ALM XVII LTD SR SECOD NT CL A-2 144A	1	13,750,000	13,782,656
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	250,000,000	40,062,754	86,923,560	12/16/2014	12/16/2044	Interest Rate Swap		51,199,330	979JXQ-II-5	CONNECT PLUS M25 LTD	2	40,062,754	35,724,230
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,316,641	17,928,419	12/16/2014	12/16/2044	Interest Rate Swap			U8270Y-ZZ-4	SILVER STATE SOLAR SOUTH Cent CLO LP Series 2014-16AR Class A2R	2	18,316,641	17,928,419
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,000,000	13,948,970	12/16/2014	12/16/2044	Interest Rate Swap			15136G-AQ-2	TICP CLO III Ltd Sr Secured Note Class A 144A	1	14,000,000	13,948,970
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		34,957,942	34,016,171	12/16/2014	12/16/2044	Interest Rate Swap			87247U-AC-7	Oaktree EIF II Ltd Series 2014-A2 Class B	1	34,957,942	34,016,171
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,668,197	19,045,907	12/16/2014	12/16/2044	Interest Rate Swap			67400L-AC-2	Bluemountain CLO 2014-4 Ltd Sr Secured Note Class B-1	1	19,668,197	19,045,907
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,633,955	12,507,913	12/16/2014	12/16/2044	Interest Rate Swap			09627V-AC-9	Bluemountain CLO 2014-4 Ltd Sr Secured Note Class B-1	1	12,633,955	12,507,913
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,305,685	22,001,093	12/16/2014	12/16/2044	Interest Rate Swap			09627V-AA-3	Bluemountain CLO 2014-4 Ltd Sr Secured Note Class A-1	1	22,305,685	22,001,093
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,669,637	11,599,666	12/16/2014	12/16/2044	Interest Rate Swap			55818V-AC-1	Madison Park Funding Ltd 2014-15A Class A2	1	11,669,637	11,599,666
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,805,479	18,454,560	12/16/2014	12/16/2044	Interest Rate Swap			04964W-AC-9	Atrium XI Series 11A Class B	1	18,805,479	18,454,560
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,490,099	20,162,029	12/16/2014	12/16/2044	Interest Rate Swap			04964W-AA-3	Atrium XI Series 11A Class A1	1	20,490,099	20,162,029

S105.11

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,408,181	12,273,418	12/16/2014	12/16/2044	Interest Rate Swap			88432D-AC-8	THL Credit Wind Riv 2014-3 CLO Series 2014-3A Class B	1	12,408,181	12,273,418
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,571,909	11,869,634	12/16/2014	12/16/2044	Interest Rate Swap			05618L-AB-2	Babson CLO Ltd 2014-II Sr Secd Note Class B-1 144A	1	12,571,909	11,869,634
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,254,257	11,369,595	12/16/2014	12/16/2044	Interest Rate Swap			82817R-AA-7	Silver Spring CLO Ltd Series 2014-1A Class B1	1	12,254,257	11,369,595
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,352,580	6,377,117	12/16/2014	12/16/2044	Interest Rate Swap			05616X-AJ-1	Babson CLO Ltd 2007-I Series 2007-1A Class B1	1	6,352,580	6,377,117
57629*CU3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	250,000,000	328,073,426	390,247,222	12/16/2014	12/16/2044	Interest Rate Swap		50,078,057	57542Z-AO-7	MassMutual Asset Finance LLC Senior Secured Revolver A	1	328,073,426	340,169,165
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	200,000,000	24,451,222	63,628,215	12/16/2014	12/16/2044	Interest Rate Swap		39,590,330	65531W-AA-8	Nomad CLO Ltd Series 2013-1A Class A1	1	24,451,222	24,037,885
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,649,834	23,179,259	12/16/2014	12/16/2044	Interest Rate Swap			09625J-AA-2	Bluemountain CLO 2013-3 Ltd Sr Secured Note Class A 144A	1	23,649,834	23,179,259
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,225,000	23,121,300	12/16/2014	12/16/2044	Interest Rate Swap			14310U-AA-7	Carlyle Global Mkt CLO 2014-4 Sr Secd Note Class A-1 144A	1	23,225,000	23,121,300
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,003,054	10,859,651	12/16/2014	12/16/2044	Interest Rate Swap			04941G-AA-6	Atlas Senior Loan Fund III Ltd Series 2013-1A Class A	1	11,003,054	10,859,651
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,528,946	17,148,277	12/16/2014	12/16/2044	Interest Rate Swap			085560-AC-2	Blue Hill CLO Ltd Series 2013-1A Class A	1	17,528,946	17,148,277
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,083,569	5,246,836	12/16/2014	12/16/2044	Interest Rate Swap			38136G-AG-6	Goldentree Loan Opp IV Ltd Sr Secd Deferrable Nt Class C	1	5,083,569	5,246,836
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,854,565	5,875,945	12/16/2014	12/16/2044	Interest Rate Swap			55819T-AG-6	MADISON PARK FUNDING LTD Series 2016-20A Class C	1	5,854,565	5,875,945
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,037,475	22,706,271	12/16/2014	12/16/2044	Interest Rate Swap			532621-AA-7	Limerock CLO Series 2014-1A Class A	1	23,037,475	22,706,271
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,157,662	22,088,435	12/16/2014	12/16/2044	Interest Rate Swap			83609J-AA-7	Sound Point CLO LTD Series 2016-1A Class A	1	22,157,662	22,088,435
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,554,974	21,517,640	12/16/2014	12/16/2044	Interest Rate Swap			08180R-AA-3	BENEFIT STREET PARTNERS CLO L Series 15-VIIA Class A1A	1	21,554,974	21,517,640
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,572,837	21,547,888	12/16/2014	12/16/2044	Interest Rate Swap			55818Y-AC-5	MADISON PARK FUNDING LTD Series 15-17A Class A2	1	21,572,837	21,547,888
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		24,164,676	23,814,144	12/16/2014	12/16/2044	Interest Rate Swap			053633-AB-9	Avery Point CLO Limited Series 2013-3A Class A	1	24,164,676	23,814,144
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		56,000,000	58,064,664	12/16/2014	12/16/2044	Interest Rate Swap			57542Z-AO-7	MassMutual Asset Finance LLC Senior Secured Revolver A	1	56,000,000	58,064,664
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	18,057,925	30,091,401	02/05/2015	02/05/2045	Interest Rate Swap		12,241,472	00164M-AC-7	ALM XII Ltd Sr Secd Note Class A-1 144A	1	18,057,925	17,849,929
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		28,396,191	28,163,316	02/05/2015	02/05/2045	Interest Rate Swap			67105V-AC-8	OHA Credit Partners IX Ltd OAKC 2013 - 9A A1	1	28,396,191	28,163,316
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		27,092,670	26,923,880	02/05/2015	02/05/2045	Interest Rate Swap			50184K-AC-2	L C M Ltd Partnership Series 13A Class A	1	27,092,670	26,923,880
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,496,065	21,993,397	02/05/2015	02/05/2045	Interest Rate Swap			939218-AC-7	Washington Mill CLO Ltd Senior Note Class A-1 144A	1	22,496,065	21,993,397
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,315,858	21,948,151	02/05/2015	02/05/2045	Interest Rate Swap			36319Q-AA-0	Galaxy XIX CLO Ltd Senior Note Class A-1 144A	1	22,315,858	21,948,151
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,763,535	5,625,574	02/05/2015	02/05/2045	Interest Rate Swap			10302V-AC-9	Bowman Park CLO Ltd Series 2014-1A Class B1	1	5,763,535	5,625,574
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,450,793	5,037,962	02/05/2015	02/05/2045	Interest Rate Swap			33882U-AC-1	Flatiron CLO Ltd Series 2014-1A Class B	1	5,450,793	5,037,962
57629*CY5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,566,090	15,041,225	02/05/2015	02/05/2045	Interest Rate Swap			828428-AA-0	Silvermore CLO Ltd Series 2014-1A Class A1	1	15,566,090	15,041,225
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	15,266,006	27,286,985	02/05/2015	02/05/2045	Interest Rate Swap		12,211,855	14311D-AC-0	CARLYLE GLOBAL MARKET STRATEG Series 2015-1A Class A	1	15,266,006	15,075,130
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,497,776	12,474,950	02/05/2015	02/05/2045	Interest Rate Swap			55818P-AE-0	Madison Park Funding Ltd Series 2014-12A Class C	1	12,497,776	12,474,950
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,250,000	11,249,933	02/05/2015	02/05/2045	Interest Rate Swap			38137H-AC-2	Goldentree Loan Opp XI Ltd Sr Secured Nt Class B 144A	1	11,250,000	11,249,933
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,839,000	9,833,964	02/05/2015	02/05/2045	Interest Rate Swap			36319Q-AC-6	Galaxy XIX CLO Ltd Senior Note Class A-2 144A	1	9,839,000	9,833,964
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,580,000	9,584,455	02/05/2015	02/05/2045	Interest Rate Swap			14311D-AE-6	CARLYLE GLOBAL MARKET STRATEG Series 2015-1A Class A	1	9,580,000	9,584,455

S105.12

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,030,317	8,555,970	02/05/2015	02/05/2045	Interest Rate Swap			15135A-AC-7	Cent CDO Ltd Series 2006-12A Class C	1	9,030,317	8,555,970
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,448,101	7,591,667	02/05/2015	02/05/2045	Interest Rate Swap			44983W-AD-0	ING Investment Management Series 2007-5A Class B	1	7,448,101	7,591,667
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,227,363	9,050,832	02/05/2015	02/05/2045	Interest Rate Swap			09626Q-AE-7	Bluemountain CLO 2014-2 Ltd Sr Sec Def Note Class C 144A	1	9,227,363	9,050,832
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,279,394	9,094,003	02/05/2015	02/05/2045	Interest Rate Swap			33882W-AC-7	Flatiron CLO Ltd. Series 2011-1A Class B	1	9,279,394	9,094,003
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,247,056	8,839,584	02/05/2015	02/05/2045	Interest Rate Swap			09626U-AE-8	Bluemountain CLO 2013-1 Ltd Sr Sec Def Note Class B 144A	1	9,247,056	8,839,584
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,000,000	8,754,633	02/05/2015	02/05/2045	Interest Rate Swap			67104C-AC-1	Oak Hill Credit Partners Series 2013-8A Class C	1	9,000,000	8,754,633
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,954,330	3,797,996	02/05/2015	02/05/2045	Interest Rate Swap			55817X-AC-8	Madison Park Funding Ltd Series 2007-5A Class A2	1	3,954,330	3,797,996
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	12,757,757	02/05/2015	02/05/2045	Interest Rate Swap			47032@-AC-7	James Campbell Company LLC Senior Note Series 2014-E	2	13,500,000	12,757,757
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,323,429	6,529,256	02/05/2015	02/05/2045	Interest Rate Swap			806713-AE-3	Schiller Park CLO LTD Series 2007-1A Class C	1	6,323,429	6,529,256
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,359,492	6,244,570	02/05/2015	02/05/2045	Interest Rate Swap			55817X-AB-0	Madison Park Funding Ltd Series 2007-5A Class A1B	1	6,359,492	6,244,570
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	9,000,000	20,722,142	02/05/2015	02/05/2045	Interest Rate Swap		12,004,535	053635-AG-3	Avery Point II CLO Limited Series 2013-2A Class C	1	9,000,000	8,717,607
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,238,311	8,975,448	02/05/2015	02/05/2045	Interest Rate Swap			14310M-AG-2	Carlyle Global Mkt CLO 2014-1 Mezz Secd Def Nt Class C 144A	1	9,238,311	8,975,448
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,218,181	8,848,845	02/05/2015	02/05/2045	Interest Rate Swap			03764X-AC-1	Apidos CDO Series 2014-17A Class A2A	1	9,218,181	8,848,845
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,219,298	8,926,362	02/05/2015	02/05/2045	Interest Rate Swap			05363X-AG-2	Avery Point CLO Ltd Series 2014-5A Class C	1	9,219,298	8,926,362
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,956,487	8,727,254	02/05/2015	02/05/2045	Interest Rate Swap			50181G-AG-5	LCM Ltd Partnership Series 16A Class C	1	8,956,487	8,727,254
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,550,000	8,551,137	02/05/2015	02/05/2045	Interest Rate Swap			55952Y-AE-7	Magnetite VIII CLO Ltd Series 2014-8A Class C	1	8,550,000	8,551,137
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,625,108	8,196,423	02/05/2015	02/05/2045	Interest Rate Swap			00900A-AC-2	Aimco Series 2014-AA Class C1	1	8,625,108	8,196,423
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,953,083	21,149,980	02/05/2015	02/05/2045	Interest Rate Swap			49638W-AB-2	Kingsland Ltd Series 2013-6A Class A1	1	21,953,083	21,149,980
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,503,499	8,002,619	02/05/2015	02/05/2045	Interest Rate Swap			24823B-AE-0	Denali Capital CLO X Ltd Series 2013-1A Class A3L	1	8,503,499	8,002,619
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,239,059	7,938,191	02/05/2015	02/05/2045	Interest Rate Swap			04941M-AC-9	Atlas Senior Loan Fund Ltd Series 2014-1A Class C	1	8,239,059	7,938,191
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,216,493	8,101,428	02/05/2015	02/05/2045	Interest Rate Swap			14310V-AJ-6	Carlyle Global Mkt Strategies Sr Secd Note Class B-2 144A	1	8,216,493	8,101,428
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,781,317	7,795,879	02/05/2015	02/05/2045	Interest Rate Swap			43164Q-AB-0	Hillmark Funding Series 2006-1A Class A2	1	7,781,317	7,795,879
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,418,862	8,056,033	02/05/2015	02/05/2045	Interest Rate Swap			09626Y-AE-0	Bluemountain CLO 2013-2 Ltd Sr Sec Def Note Class C 144A	1	8,418,862	8,056,033
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,796,427	1,702,024	02/05/2015	02/05/2045	Interest Rate Swap			15015P-AB-1	Cedar Creek CLO Ltd Series 2013-1A Class B	1	1,796,427	1,702,024
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,663,760	1,599,914	02/05/2015	02/05/2045	Interest Rate Swap			09627X-AG-6	Bluemountain CLO 2015-1 Ltd Sr Secd Deferrable Nt Class C	1	1,663,760	1,599,914
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,389,018	9,340,819	02/05/2015	02/05/2045	Interest Rate Swap			384895-AN-8	Gramercy Park CLO LTD	1	9,389,018	9,340,819
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,037,835	1,976,576	02/05/2015	02/05/2045	Interest Rate Swap			14954W-AA-4	Cavalry CLO Ltd Series 2013-3A Class A	1	2,037,835	1,976,576
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	8,291,557	19,863,963	02/05/2015	02/05/2045	Interest Rate Swap		11,826,832	26249G-AC-4	Dryden 33 Senior Loan Fund Series 2014-33A Class C	1	8,291,557	8,037,131
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,392,450	7,907,050	02/05/2015	02/05/2045	Interest Rate Swap			67108F-AC-0	Ozlm Funding Ltd Series 2013-4A Class A2	1	8,392,450	7,907,050
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,160,251	7,857,040	02/05/2015	02/05/2045	Interest Rate Swap			38137L-AE-9	Goldentree Loan Opp VIII Ltd Mezz Deferrable Nt Cl C 144A	1	8,160,251	7,857,040
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,130,143	7,808,296	02/05/2015	02/05/2045	Interest Rate Swap			38808F-AE-8	Greywolf CLO Ltd Series 2014-1A Class B	1	8,130,143	7,808,296

S105.13

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,150,261	7,597,176	02/05/2015	02/05/2045	Interest Rate Swap			05618L-AD-8	Babson CLO Ltd 2014-II Sr Secd Note Class C 144A	1	8,150,261	7,597,176
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		26,248,295	25,679,602	02/05/2015	02/05/2045	Interest Rate Swap			67590B-AA-8	Octagon Inv Partners XVI Ltd Series 2013-1A Class A	1	26,248,295	25,679,602
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,588,551	2,501,390	02/05/2015	02/05/2045	Interest Rate Swap			87155P-AD-6	Symphony CLO Ltd Series 2012-9A Class C	1	2,588,551	2,501,390
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,850,000	7,526,415	02/05/2015	02/05/2045	Interest Rate Swap			15136R-AE-5	Cent CLO 18 Limited Series 2013-18A Class B	1	7,850,000	7,526,415
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		46,150,000	45,816,197	02/05/2015	02/05/2045	Interest Rate Swap			589433-G8-4	Meredith Corp. Senior Note Series Q	2	46,150,000	45,816,197
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,466,090	7,380,713	02/05/2015	02/05/2045	Interest Rate Swap			36248M-AB-3	GT Loan Financing Ltd. Series 2013-1A Class B	1	7,466,090	7,380,713
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,891,350	2,429,648	02/05/2015	02/05/2045	Interest Rate Swap			278287-AC-1	Eaton Vance CDO Ltd Series 2006-8A Class B	1	1,891,350	2,429,648
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,824,091	1,929,656	02/05/2015	02/05/2045	Interest Rate Swap			38136A-AA-2	Goldentree Loan Opp III Ltd Secd Deferrable Nt Cl D-1 144A	1	1,824,091	1,929,656
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,016,745	12,849,290	02/05/2015	02/05/2045	Interest Rate Swap			24820R-AA-6	Statoil ASA Senior Unsecured Note	1	10,016,745	12,849,290
12518*FH8	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2	625,000,000	403,750,065	448,886,540	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index	6,194,838	6,841,250	912828-PX-2	US Treasury 3.625% DUE 2/15/2021 Resolution Funding Corp Principal	1	397,555,227	442,045,290
12518*FH8	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		222,979,563	265,928,256	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			76116F-AG-2	Strip	1	222,979,563	265,928,256
12518*FG0	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2	590,000,000	307,423,507	342,188,740	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index	5,482,828	6,458,140	912828-PX-2	US Treasury 3.625% DUE 2/15/2021 Resolution Funding Corp Principal	1	301,940,679	335,730,600
12518*FG0	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		284,654,762	339,482,880	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			76116F-AG-2	Strip	1	284,654,762	339,482,880
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2	500,000,000	55,777,662	58,300,631	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index	4,977,662	5,473,000	92927K-AA-3	WABCO Holdings Inc Senior Note Series A	2	50,800,000	52,827,631
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		36,353,712	38,322,629	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			184692-B8-9	ClearBridge Energy MLP Fund Senior Secured Note Ser A	1	36,353,712	38,322,629
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		36,450,000	37,740,986	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			48661E-B8-8	Keyne Anderson Mdstm Egy Fd Senior Note Series D	1	36,450,000	37,740,986
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		36,000,000	38,470,392	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			Q3629#-AG-8	ETSA Utilities Finance Pty Ltd Gtd Senior Note Series B	1	36,000,000	38,470,392
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		47,000,000	50,957,353	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			89148B-B8-1	Tortoise MLP Fund Inc. Senior Note Series D	1	47,000,000	50,957,353
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		27,300,000	29,706,140	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			G9850#-AB-9	Yorkshire Water Svcs Bradford Gtd Senior Sec Note Cl A Ser 2	1	27,300,000	29,706,140
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		28,250,000	29,593,711	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			G8228*-AG-7	Smith & Nephew plc Senior Note Series C	1	28,250,000	29,593,711
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		28,000,000	30,769,732	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			Q9194#-AF-4	Transpower New Zealand Ltd Gtd Senior Note	1	28,000,000	30,769,732
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		22,600,000	25,254,280	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			55068#-AK-5	Luxottica US Holdings Corp. Gtd Senior Note Series I	1	22,600,000	25,254,280
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		25,000,000	30,588,775	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			085209-A#-1	Bermuda Government Senior Note	1	25,000,000	30,588,775
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		21,600,000	23,922,238	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			G2044#-AY-1	Compass Group plc Senior Note Series K	1	21,600,000	23,922,238
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		20,033,491	25,698,580	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			24820R-AA-6	Statoil ASA Senior Unsecured Note	1	20,033,491	25,698,580
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		20,000,000	22,406,880	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			731068-AB-1	Polaris Industries Inc. Senior Note Series 2011 Tr B	1	20,000,000	22,406,880
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		17,550,000	19,326,902	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			12656*-AC-6	CSLB Holdings Inc. Gtd Senior Note Series C	1	17,550,000	19,326,902
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		15,800,000	17,251,736	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			12656*-AB-8	CSLB Holdings Inc. Gtd Senior Note Series B	1	15,800,000	17,251,736
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		9,464,993	10,139,970	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			184690-AB-7	ClearBridge Energy MLP Total R Senior Secured Note Series B	1	9,464,993	10,139,970
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		12,015,385	12,721,601	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			48660P-D8-0	Keyne Anderson Energy Rtn Fd Senior Note Series K	1	12,015,385	12,721,601
12518*FF2	Credit Default Indices (CDIGS26/CDX.NA.IG.26)	2		15,900,000	17,135,271	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			74986#-AM-3	PRREEF America REIT II Inc. Senior Note Series C	1	15,900,000	17,135,271

S105.14

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		5,355,000	5,788,985	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			48661E-A#-5	Kayne Anderson Mdstm Egy Fd Senior Note Series C	1	5,355,000	5,788,985
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		12,700,000	13,355,676	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			486606-K#-4	Kayne Anderson MLP Invest Co. Senior Note Series JJ	1	12,700,000	13,355,676
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		11,500,000	12,247,903	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			21867*-AA-6	Core Labs Interest Hldgs Inc. Senior Note Ser 2011A	2	11,500,000	12,247,903
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		11,400,000	12,049,013	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			21867*-AB-4	Core Labs Interest Hldgs Inc. Senior Note Ser 2011B	2	11,400,000	12,049,013
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		10,750,000	11,463,349	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			003009-A#-6	Aberdeen Asia-Pacific Income Senior Secured Note Series B	1	10,750,000	11,463,349
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		12,000,000	12,727,116	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			941848-C#-0	Waters Corporation Gtd Senior Note Series E	2	12,000,000	12,727,116
12518*FF2	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		9,000,000	9,806,391	03/21/2016	06/20/2021	5 Yr Credit Default Swap Index			56081#-AL-4	Major League Baseball Trust Senior Note Series 6	1	9,000,000	9,806,391
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2	250,000,000	37,219,492	38,738,070	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index	(3,630,508)	(3,973,750)	Q3189*-AC-3	DEXUS Funds Mgmt Ltd Senior Note Series C	1	40,850,000	42,711,820
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		42,400,000	43,058,345	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			Q3920#-AG-4	Fonterra Co-operative Group Lt Senior Note	1	42,400,000	43,058,345
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		25,200,000	26,316,662	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			57169*-AU-1	Mars Inc. Senior Note Series K	1	25,200,000	26,316,662
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		24,000,000	23,962,200	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			41242*-AY-8	Hardwood Funding LLC Senior Secured Note Series W	1	24,000,000	23,962,200
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		21,400,000	23,165,735	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			038336-E#-8	AptarGroup Inc. Senior Note Ser 2014-A-4	2	21,400,000	23,165,735
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		3,059,098	3,360,254	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			184692-C#-0	ClearBridge Energy MLP Fund Senior Secured Note Series A	1	3,059,098	3,360,254
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		17,500,000	18,951,888	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			Q9194#-AC-1	Transpower New Zealand Ltd Senior Note Series C	1	17,500,000	18,951,888
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		17,600,000	19,171,486	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			12656*-AD-4	CSLB Holdings Inc. Gtd Senior Note Series D	1	17,600,000	19,171,486
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		17,600,000	17,498,413	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			655663-E#-5	Nordson Corp. Senior Note Series 2015-B	2	17,600,000	17,498,413
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		14,375,000	15,345,039	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			674003-A#-7	Oaktree Capital Mgmt LP Senior Note Series B	1	14,375,000	15,345,039
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		13,400,000	13,788,171	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			720186-F#-1	Piedmont Natural Gas Co. Senior Note Series B	1	13,400,000	13,788,171
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		13,800,000	15,886,036	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			G1108#-AG-3	British Land Company plc Senior Note Series D	1	13,800,000	15,886,036
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		12,500,000	14,836,463	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			G1744#-AM-0	Cadogan Estates Ltd Gtd Senior Note Series B	1	12,500,000	14,836,463
12518*FE5	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		13,489,244	14,237,174	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			662325-B#-7	North Shore Gas Co. First Mtg Bond Series P	1	13,489,244	14,237,174
12518*FJ4	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2	250,000,000	63,886,771	64,093,847	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index	(3,513,229)	(3,973,750)	G5147*-AD-8	Johnson Matthey plc Senior Note Series D	1	67,400,000	68,067,597
12518*FJ4	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		64,200,000	72,665,926	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			Q0832*-AD-8	Australia Pacific Airport Pty Gtd Senior Note Ser C	1	64,200,000	72,665,926
12518*FJ4	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		55,000,000	59,775,705	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			G8781#-AC-1	Thames Water Util Cayman Fin Gtd Senior Sec Note Cl A Ser 3	1	55,000,000	59,775,705
12518*FJ4	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		54,500,000	57,169,247	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			553799-AE-7	MU Finance plc Gtd Senior Secured Note	1	54,500,000	57,169,247
12518*FJ4	Credit Default Indices (CDIG026/CDX.NA.IG.26)	2		45,000,000	50,240,880	03/21/2016	06/20/2026	10 Yr Credit Default Swap Index			838515-G#-9	South Jersey Gas Company First Mortgage Bond Ser C	1	45,000,000	50,240,880
Filed with the SVO and awaiting RSAT	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2	450,000,000	329,102,834	365,668,230	09/22/2014	06/20/2021	5 Yr Credit Default Swap Index	4,667,575	4,925,700	912828-PX-2	US Treasury 3.625% DUE 2/15/2021	1	324,435,259	360,742,530
Filed with the SVO and awaiting RSAT	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		69,582,275	82,984,704	09/22/2014	06/20/2021	5 Yr Credit Default Swap Index			76116F-AG-2	Resolution Funding Corp Principal Strip	1	69,582,275	82,984,704
Filed with the SVO and awaiting RSAT	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2		86,869,688	126,086,565	09/22/2014	06/20/2021	5 Yr Credit Default Swap Index			912810-QK-7	US Treasury 3.875% DUE 8/15/2040	1	86,869,688	126,086,565
Filed with the SVO and awaiting RSAT	Credit Default Indices (CDIG526/CDX.NA.IG.26)	2	100,000,000	128,711,843	186,906,380	09/22/2014	06/20/2021	5 Yr Credit Default Swap Index	693,355	1,094,600	912810-QK-7	US Treasury 3.875% DUE 8/15/2040	1	128,018,488	185,811,780

S105.15

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 1**

Replication (Synthetic Asset) Transactions Open as of Current Statement Date

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1 Number	2 Description	3 NAIC Designation or Other Description	4 Notional Amount	5 Book/Adjusted Carrying Value	6 Fair Value	7 Effective Date	8 Maturity Date	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9 Description	10 Book/Adjusted Carrying Value	11 Fair Value	12 CUSIP	13 Description	14 NAIC Designation or Other Description	15 Book/Adjusted Carrying Value	16 Fair Value
Filed with the SVO and awaiting RSAT .. (CD1G526/CDX.NA.1G.26) .....	Credit Default Indices	2 .....	50,000,000	64,338,382	93,453,190	09/22/2014 .....	06/20/2021 .....	5 Yr Credit Default Swap Index .....	329,138	547,300	912810-QK-7 ..	US Treasury 3.875% DUE 8/15/2040 ..	1 .....	64,009,244	92,905,890
Filed with the SVO and awaiting RSAT .. (CD1G526/CDX.NA.1G.26) .....	Credit Default Indices	2 .....	50,000,000	64,282,025	93,453,190	09/22/2014 .....	06/20/2021 .....	5 Yr Credit Default Swap Index .....	272,781	547,300	912810-QK-7 ..	US Treasury 3.875% DUE 8/15/2040 ..	1 .....	64,009,244	92,905,890
<b>9999999 - Totals</b>				11,110,378,734	13,250,602,036	XXX	XXX	XXX	15,789,572	1,849,258,133	XXX	XXX	XXX	11,094,589,162	11,401,343,903

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - PART C - SECTION 2**

Replication (Synthetic Asset) Transactions Open

	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		Year To Date	
	1 Number of Positions	2 Total Replication (Synthetic Asset) Transactions Statement Value	3 Number of Positions	4 Total Replication (Synthetic Asset) Transactions Statement Value	5 Number of Positions	6 Total Replication (Synthetic Asset) Transactions Statement Value	7 Number of Positions	8 Total Replication (Synthetic Asset) Transactions Statement Value	9 Number of Positions	10 Total Replication (Synthetic Asset) Transactions Statement Value
1. Beginning Inventory .....	90	9,986,000,000	80	9,889,000,000					90	9,986,000,000
2. Add: Opened or Acquired Transactions.....	18	3,715,000,000	4	650,000,000					22	4,365,000,000
3. Add: Increases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX		XXX		XXX		XXX		XXX	
4. Less: Closed or Disposed of Transactions.....	28	3,812,000,000	2	300,000,000					30	4,112,000,000
5. Less: Positions Disposed of for Failing Effectiveness Criteria.....										
6. Less: Decreases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX		XXX		XXX		XXX		XXX	
7. Ending Inventory	80	9,889,000,000	82	10,239,000,000					82	10,239,000,000

STATEMENT AS OF JUNE 30, 2016 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE DB - VERIFICATION**

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

	Book/Adjusted Carrying Value Check
1. Part A, Section 1, Column 14.....	4,261,343,898
2. Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance.....	.....
3. Total (Line 1 plus Line 2) .....	4,261,343,898
4. Part D, Section 1, Column 5 .....	15,949,535,467
5. Part D, Section 1, Column 6 .....	(11,688,191,569)
6. Total (Line 3 minus Line 4 minus Line 5) .....	.....
	Fair Value Check
7. Part A, Section 1, Column 16 .....	6,094,812,552
8. Part B, Section 1, Column 13 .....	.....
9. Total (Line 7 plus Line 8) .....	6,094,812,552
10. Part D, Section 1, Column 8 .....	17,783,807,884
11. Part D, Section 1, Column 9 .....	(11,688,995,332)
12. Total (Line 9 minus Line 10 minus Line 11) .....	.....
	Potential Exposure Check
13. Part A, Section 1, Column 21 .....	5,532,960,875
14. Part B, Section 1, Column 20 .....	117,102,400
15. Part D, Section 1, Column 11 .....	5,650,063,275
16. Total (Line 13 plus Line 14 minus Line 15) .....	.....



**SCHEDULE E - VERIFICATION**

(Cash Equivalents)

	1	2
	Year To Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year .....	2,706,693,131	1,205,471,894
2. Cost of cash equivalents acquired .....	45,010,162,848	106,803,093,016
3. Accrual of discount .....	12,600,508	12,058,367
4. Unrealized valuation increase (decrease) .....		
5. Total gain (loss) on disposals .....	31,343	25,837
6. Deduct consideration received on disposals .....	45,902,816,037	105,313,955,979
7. Deduct amortization of premium .....	5,779	4
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) .....	1,826,666,014	2,706,693,131
11. Deduct total nonadmitted amounts .....		
12. Statement value at end of current period (Line 10 minus Line 11)	1,826,666,014	2,706,693,131