

**QUARTERLY STATEMENT**

**OF THE**

**Massachusetts Mutual Life Insurance Company**

**TO THE**

**Insurance Department**

**OF THE**

**STATE OF**

**FOR THE QUARTER ENDED  
MARCH 31, 2017**

**LIFE AND ACCIDENT AND HEALTH**

**2017**

STATEMENT AS OF MARCH 31, 2017 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 .....	85,936,783,769		85,936,783,769	83,820,817,695
2. Stocks:				
2.1 Preferred stocks .....	488,265,729		488,265,729	464,925,273
2.2 Common stocks .....	15,227,297,890		15,227,297,890	15,363,384,808
3. Mortgage loans on real estate:				
3.1 First liens .....	21,109,218,668		21,109,218,668	20,961,091,565
3.2 Other than first liens.....				
4. Real estate:				
4.1 Properties occupied by the company (less \$ encumbrances) .....	155,247,587		155,247,587	158,135,975
4.2 Properties held for the production of income (less \$ .....697,560,952 encumbrances) .....	719,925,072		719,925,072	737,451,103
4.3 Properties held for sale (less \$ encumbrances) .....	37,364,647		37,364,647	81,092,879
5. Cash (\$ .....61,603,884 ), cash equivalents (\$ .....3,145,623,889 ) and short-term investments (\$ .....534,562,662 ) .....	3,741,790,435		3,741,790,435	3,725,936,280
6. Contract loans (including \$ ..... premium notes) .....	12,609,775,821	436,470	12,609,339,351	12,461,290,555
7. Derivatives .....	9,097,478,359		9,097,478,359	9,763,460,825
8. Other invested assets .....	7,412,055,692	42,606,187	7,369,449,505	7,186,889,062
9. Receivables for securities .....	187,193,161		187,193,161	161,585,825
10. Securities lending reinvested collateral assets .....				
11. Aggregate write-ins for invested assets .....				
12. Subtotals, cash and invested assets (Lines 1 to 11) .....	156,722,396,830	43,042,657	156,679,354,173	154,886,061,845
13. Title plants less \$ ..... charged off (for Title insurers only) .....				
14. Investment income due and accrued .....	2,091,788,314	28,942,480	2,062,845,834	1,911,666,108
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection .....	103,689,574	4,730,140	98,959,434	141,093,092
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ ..... earned but unbilled premiums) .....	669,649,094		669,649,094	642,564,314
15.3 Accrued retrospective premiums (\$ ..... ) and contracts subject to redetermination (\$ ..... ) .....				
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers .....	28,449,276		28,449,276	41,664,064
16.2 Funds held by or deposited with reinsured companies .....				
16.3 Other amounts receivable under reinsurance contracts .....	14,464,398		14,464,398	(8,316,304)
17. Amounts receivable relating to uninsured plans .....				
18.1 Current federal and foreign income tax recoverable and interest thereon .....	319,408,867		319,408,867	44,148,885
18.2 Net deferred tax asset .....	1,647,157,058		1,647,157,058	1,606,052,936
19. Guaranty funds receivable or on deposit .....	26,044,255		26,044,255	26,092,893
20. Electronic data processing equipment and software .....	164,095,269	154,524,901	9,570,368	9,280,689
21. Furniture and equipment, including health care delivery assets (\$ ..... ) .....	39,577,842	39,577,842		
22. Net adjustment in assets and liabilities due to foreign exchange rates .....				
23. Receivables from parent, subsidiaries and affiliates .....	112,273,388	3,157,698	109,115,690	68,885,410
24. Health care (\$ ..... ) and other amounts receivable .....				
25. Aggregate write-ins for other than invested assets .....	3,276,326,072	1,172,577,837	2,103,748,235	2,097,275,811
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) .....	165,215,320,237	1,446,553,555	163,768,766,682	161,466,469,743
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts .....	64,813,361,294		64,813,361,294	62,203,995,882
28. Total (Lines 26 and 27) .....	230,028,681,531	1,446,553,555	228,582,127,976	223,670,465,625
<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 .....	2,005,263,984		2,005,263,984	1,980,550,440
2502. Employee insurance plan advances .....	40,755,702	46,427	40,709,275	40,091,324
2503. Investment in trust .....	31,662,637		31,662,637	31,420,102
2598. Summary of remaining write-ins for Line 25 from overflow page .....	1,198,643,749	1,172,531,410	26,112,339	45,213,945
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) .....	3,276,326,072	1,172,577,837	2,103,748,235	2,097,275,811

STATEMENT AS OF MARCH 31, 2017 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 \$ 110,101,379,341 less \$ included in Line 6.3 (including \$ 48,103,615 Modco Reserve)	110,101,379,341	109,391,085,184
2. Aggregate reserve for accident and health contracts (including \$ 85,699,363 Modco Reserve)	2,809,097,057	2,794,862,457
3. Liability for deposit-type contracts (including \$ Modco Reserve)	11,588,846,100	11,574,147,866
4. Contract claims:		
4.1 Life	386,433,765	340,468,688
4.2 Accident and health	24,719,064	22,534,817
5. Policyholders' dividends \$ 9,402,503 and coupons \$ due and unpaid	9,402,503	10,022,581
6. Provision for policyholders' dividends and coupons payable in following calendar year - estimated amounts:		
6.1 Dividends apportioned for payment (including \$ Modco)	1,613,497,559	1,599,171,763
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 \$ 10,226,837 accident and health premiums	46,248,655	29,443,441
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	11,463,667	9,612,909
9.3 Other amounts payable on reinsurance, including \$ 12,282,381 assumed and \$ 10,045,523 ceded	22,327,904	34,416,893
9.4 Interest Maintenance Reserve	(91,106)	4,863,663
10. Commissions to agents due or accrued-life and annuity contracts \$ 33,892,663, accident and health \$ 246,368 and deposit-type contract funds \$ 10,363,419	44,502,450	33,289,525
11. Commissions and expense allowances payable on reinsurance assumed	4,836,106	5,176,675
12. General expenses due or accrued	986,159,910	1,120,711,796
13. Transfers to Separate Accounts due or accrued (net) (including \$ (177,629,514) accrued for expense allowances recognized in reserves, net of reinsured allowances)	(194,038,842)	(188,589,116)
14. Taxes, licenses and fees due or accrued, excluding federal income taxes	53,140,510	60,440,244
15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses)		
15.2 Net deferred tax liability		
16. Unearned investment income	118,058,590	147,178,617
17. Amounts withheld or retained by company as agent or trustee	15,006,745	31,994,760
18. Amounts held for agents' account, including \$ agents' credit balances	307,159,046	301,711,951
19. Remittances and items not allocated	600,451,057	(382,509,320)
20. Net adjustment in assets and liabilities due to foreign exchange rates		1,892
21. Liability for benefits for employees and agents if not included above	185,781,523	183,613,798
22. Borrowed money \$ 249,820,611 and interest thereon \$	249,820,611	249,940,070
23. Dividends to stockholders declared and unpaid		
24. Miscellaneous liabilities:		
24.01 Asset valuation reserve	3,120,710,384	3,178,008,369
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	15,315,253	36,595,902
24.05 Drafts outstanding		
24.06 Liability for amounts held under uninsured plans		
24.07 Funds held under coinsurance		
24.08 Derivatives	5,542,556,601	6,014,042,701
24.09 Payable for securities	1,691,910,010	168,191,017
24.10 Payable for securities lending		
24.11 Capital notes \$ and interest thereon \$		
25. Aggregate write-ins for liabilities	9,066,274,787	9,281,690,021
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25)	148,420,969,250	146,052,119,164
27. From Separate Accounts Statement	64,813,355,362	62,194,856,505
28. Total liabilities (Lines 26 and 27)	213,234,324,612	208,246,975,669
29. Common capital stock		
30. Preferred capital stock		
31. Aggregate write-ins for other than special surplus funds		
32. Surplus notes	2,267,276,568	2,231,930,599
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)	13,077,276,796	13,188,309,357
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 \$ 5,932 in Separate Accounts Statement)	15,347,803,364	15,423,489,956
38. Totals of Lines 29, 30 and 37	15,347,803,364	15,423,489,956
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	228,582,127,976	223,670,465,625
<b>DETAILS OF WRITE-INS</b>		
2501. Repurchase agreements	4,409,132,641	4,735,731,002
2502. Derivative collateral	2,730,929,468	2,839,407,087
2503. Derivative interest liability	1,787,696,502	1,626,497,813
2598. Summary of remaining write-ins for Line 25 from overflow page	138,516,176	80,054,119
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	9,066,274,787	9,281,690,021
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	4,666,592,525	4,967,469,871	21,408,422,772
2. Considerations for supplementary contracts with life contingencies	5,214,585	8,772,015	23,549,023
3. Net investment income	1,801,173,107	1,474,468,239	6,198,498,167
4. Amortization of Interest Maintenance Reserve (IMR)	10,391,807	28,002,999	135,288,595
5. Separate Accounts net gain from operations excluding unrealized gains or losses	1,003,092	(739)	3,135
6. Commissions and expense allowances on reinsurance ceded	27,729,663	23,418,580	398,451,052
7. Reserve adjustments on reinsurance ceded	12,765,490	8,537,252	82,715,440
8. Miscellaneous Income:			
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	90,192,882	84,607,331	355,790,536
8.2 Charges and fees for deposit-type contracts			
8.3 Aggregate write-ins for miscellaneous income	127,050,093	84,702,392	446,735,033
9. Totals (Lines 1 to 8.3)	6,742,113,244	6,679,977,940	29,049,453,753
10. Death benefits	471,314,223	454,931,553	1,691,839,821
11. Matured endowments (excluding guaranteed annual pure endowments)	4,388,870	4,878,785	22,098,524
12. Annuity benefits	515,223,081	410,821,184	1,716,610,953
13. Disability benefits and benefits under accident and health contracts	94,864,144	91,042,169	364,195,418
14. Coupons, guaranteed annual pure endowments and similar benefits			
15. Surrender benefits and withdrawals for life contracts	3,684,928,822	3,373,614,762	14,003,404,091
16. Group conversions			
17. Interest and adjustments on contract or deposit-type contract funds	73,638,984	77,725,548	313,262,892
18. Payments on supplementary contracts with life contingencies	3,277,655	2,849,270	11,491,950
19. Increase in aggregate reserves for life and accident and health contracts	743,240,102	1,742,678,578	9,611,871,345
20. Totals (Lines 10 to 19)	5,590,875,881	6,158,541,849	27,734,774,994
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	222,921,946	184,322,098	835,574,160
22. Commissions and expense allowances on reinsurance assumed	25,446,034	30,508,265	102,861,238
23. General insurance expenses	794,560,115	488,587,897	2,242,669,265
24. Insurance taxes, licenses and fees, excluding federal income taxes	67,216,364	56,585,400	237,373,881
25. Increase in loading on deferred and uncollected premiums	(10,888,514)	(8,208,414)	43,039,144
26. Net transfers to or (from) Separate Accounts net of reinsurance	(165,338,364)	195,997,166	(2,224,883,854)
27. Aggregate write-ins for deductions	(179,232,610)	(525,795,954)	(1,355,695,597)
28. Totals (Lines 20 to 27)	6,345,560,852	6,580,538,307	27,615,713,231
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	396,552,392	99,439,633	1,433,740,522
30. Dividends to policyholders	367,164,619	395,040,048	1,565,630,560
31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30)	29,387,773	(295,600,415)	(131,890,038)
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	(14,533,459)	(127,833,485)	(326,418,900)
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)	43,921,232	(167,766,930)	194,528,862
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ (136,397,719) (excluding taxes of \$ (27,742,980) transferred to the IMR)	(226,597,730)	162,659,395	(208,411,773)
35. Net income (Line 33 plus Line 34)	(182,676,498)	(5,107,535)	(13,882,911)
<b>CAPITAL AND SURPLUS ACCOUNT</b>			
36. Capital and surplus, December 31, prior year	15,423,489,956	14,982,532,137	14,982,532,137
37. Net income (Line 35)	(182,676,498)	(5,107,535)	(13,882,911)
38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (39,426,644)	(320,194,801)	656,496,708	1,104,826,359
39. Change in net unrealized foreign exchange capital gain (loss)	134,721,920	51,430,432	(440,578,518)
40. Change in net deferred income tax	29,828,326	(47,050,514)	247,381,944
41. Change in nonadmitted assets	184,282,317	(26,720,259)	(326,288,254)
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			(700,000)
44. Change in asset valuation reserve	57,297,985	(183,082,207)	(360,870,009)
45. Change in treasury stock			
46. Surplus (contributed to) withdrawn from Separate Accounts during period	10,136,547	847	137,379
47. Other changes in surplus in Separate Accounts Statement	(10,136,537)	128,280	22,620
48. Change in surplus notes	35,345,969		293,417
49. Cumulative effect of changes in accounting principles			
50. Capital changes:			
50.1 Paid in			
50.2 Transferred from surplus (Stock Dividend)			
50.3 Transferred to surplus			
51. Surplus adjustment:			
51.1 Paid in			
51.2 Transferred to capital (Stock Dividend)			
51.3 Transferred from capital			
51.4 Change in surplus as a result of reinsurance			
52. Dividends to stockholders			
53. Aggregate write-ins for gains and losses in surplus	(14,291,821)	(19,361,709)	230,615,792
54. Net change in capital and surplus for the year (Lines 37 through 53)	(75,686,593)	426,734,043	440,957,819
55. Capital and surplus, as of statement date (Lines 36 + 54)	15,347,803,363	15,409,266,180	15,423,489,956
<b>DETAILS OF WRITE-INS</b>			
08.301. Administrative fee and other income	127,050,093	84,702,392	446,735,033
08.302.			
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)	127,050,093	84,702,392	446,735,033
2701. Change in reserves due to reinsurance agreement	(189,469,422)	(521,440,103)	(1,509,796,199)
2702. Market value adjustment transfer	(6,237,968)	(5,932,419)	(64,542,484)
2703. Reinsurance ceded adjustment	(4,001,413)		189,419,444
2798. Summary of remaining write-ins for Line 27 from overflow page	20,476,193	1,576,568	29,223,642
2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(179,232,610)	(525,795,954)	(1,355,695,597)
5301. Other changes in surplus	(10,290,408)	(19,361,709)	34,927,403
5302. Reinsurance ceded adjustment	(4,001,413)		189,419,444
5303. Change in minimum pension liability			6,268,945
5398. Summary of remaining write-ins for Line 53 from overflow page			
5399. Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(14,291,821)	(19,361,709)	230,615,792

STATEMENT AS OF MARCH 31, 2017 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 .....	4,737,457,170	5,018,013,281	20,433,595,404
2. Net investment income .....	1,801,079,177	1,554,555,105	6,393,738,365
3. Miscellaneous income .....	292,955,837	214,590,960	1,251,485,821
4. Total (Lines 1 to 3) .....	6,831,492,184	6,787,159,346	28,078,819,590
5. Benefit and loss related payments .....	4,776,924,285	4,394,239,075	17,832,334,133
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts .....	(829,657,696)	185,847,493	(2,282,031,154)
7. Commissions, expenses paid and aggregate write-ins for deductions .....	852,225,709	293,651,680	1,844,829,215
8. Dividends paid to policyholders .....	353,458,901	373,399,726	1,697,939,764
9. Federal and foreign income taxes paid (recovered) net of \$ ..... tax on capital gains (losses) .....	105,084,615	(189,099,465)	(352,810,012)
10. Total (Lines 5 through 9) .....	5,258,035,814	5,058,038,509	18,740,261,946
11. Net cash from operations (Line 4 minus Line 10) .....	1,573,456,370	1,729,120,837	9,338,557,644
<b>Cash from Investments</b>			
12. Proceeds from investments sold, matured or repaid:			
12.1 Bonds .....	6,344,185,431	2,630,923,009	14,659,729,714
12.2 Stocks .....	175,199,760	130,884,908	651,548,869
12.3 Mortgage loans .....	466,882,890	705,290,810	3,846,629,207
12.4 Real estate .....	108,305,211	1,427,132	59,477,126
12.5 Other invested assets .....	322,099,026	116,431,005	907,794,485
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments .....	(378,111)	(11,735,694)	(38,360,762)
12.7 Miscellaneous proceeds .....	(309,290,805)	358,119,603	460,436,688
12.8 Total investment proceeds (Lines 12.1 to 12.7) .....	7,107,003,402	3,931,340,773	20,547,255,327
13. Cost of investments acquired (long-term only):			
13.1 Bonds .....	8,338,743,429	4,674,805,818	21,393,094,405
13.2 Stocks .....	270,916,466	97,778,163	1,877,459,425
13.3 Mortgage loans .....	588,149,785	849,850,530	3,504,567,522
13.4 Real estate .....	40,695,469	33,467,217	200,908,436
13.5 Other invested assets .....	379,590,339	355,604,427	1,568,129,204
13.6 Miscellaneous applications .....	(1,332,452,416)	(79,475,186)	511,793,079
13.7 Total investments acquired (Lines 13.1 to 13.6) .....	8,285,643,072	5,932,030,969	29,055,952,071
14. Net increase (or decrease) in contract loans and premium notes .....	147,899,036	113,751,150	647,665,084
15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14) .....	(1,326,538,706)	(2,114,441,346)	(9,156,361,828)
<b>Cash from Financing and Miscellaneous Sources</b>			
16. Cash provided (applied):			
16.1 Surplus notes, capital notes .....	35,345,969		293,417
16.2 Capital and paid in surplus, less treasury stock .....			
16.3 Borrowed funds .....	(20,882)	5,254,345	(26,916,744)
16.4 Net deposits on deposit-type contracts and other insurance liabilities .....	(27,895,377)	(14,024,763)	755,330,761
16.5 Dividends to stockholders .....			
16.6 Other cash provided (applied) .....	(238,493,219)	561,096,172	(233,612,080)
17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6) .....	(231,063,509)	552,325,754	495,095,354
<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) .....	15,854,155	167,005,245	677,291,170
19. Cash, cash equivalents and short-term investments:			
19.1 Beginning of year .....	3,725,936,280	3,048,645,110	3,048,645,110
19.2 End of period (Line 18 plus Line 19.1) .....	3,741,790,435	3,215,650,356	3,725,936,280

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

20.0001. Transfer of affiliated common stock .....	102,800,714		
20.0002. Bond conversions and refinancing .....	78,691,190	133,594,513	419,261,516
20.0003. Change in market value of corporate owned life insurance .....	31,954,814		58,874,190
20.0004. Stock conversions .....	2,774,147	2,881,295	22,066,669
20.0005. Dividend reinvestment .....	286,843	1,049,686	28,860,653
20.0006. Other invested assets to stock .....	179,934		105,936,231
20.0007. Other invested assets contributed to subsidiary .....		682,102,736	682,102,736
20.0008. Transfer of mortgage loan to other than invested assets .....		26,550,000	98,392,208
20.0009. Bank loan rollovers .....		4,591,260	4,591,260
20.0010. Net investment income payment in-kind bonds .....		841,187	3,999,576

STATEMENT AS OF MARCH 31, 2017 OF THE Massachusetts Mutual Life Insurance Company

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

20.0011. Interest capitalization for long-term debt .....	.....	466,247	1,844,174
20.0012. Acquisition of affiliated common stock for bonds and mortgage loans .....	.....		3,286,679,337
20.0013. Premium recognized for a group annuity contract .....	.....		905,045,062
20.0014. Bonds received as consideration for a group annuity contract .....	.....		905,045,062
20.0015. Bonds converted from long-term to short-term .....	.....		88,838,415
20.0016. Other invested assets to bonds .....	.....		79,797,836

**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 .....	1,464,533,518	1,321,488,407	6,406,227,881
3. Ordinary individual annuities .....	612,456,861	448,450,751	2,428,270,878
4. Credit life (group and individual) .....			
5. Group life insurance .....	325,704,175	416,330,034	1,485,245,423
6. Group annuities .....	1,902,386,507	2,398,811,018	10,266,489,470
7. A & H - group .....	43,146	39,320	160,081
8. A & H - credit (group and individual) .....			
9. A & H - other .....	179,381,565	173,914,933	709,494,930
10. Aggregate of all other lines of business .....			
11. Subtotal .....	4,484,505,772	4,759,034,463	21,295,888,663
12. Deposit-type contracts .....	763,977,072	520,198,992	3,890,495,490
13. Total	5,248,482,844	5,279,233,455	25,186,384,153
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 Commonwealth of Massachusetts is shown below:

	SSAP #	F/S Page	F/S Line #	2017	2016
<b>NET INCOME</b>					
(1) State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$ (182,676,498)	\$ (13,882,911)
(2) State prescribed practices that increase/(decrease) NAIC	N/A	N/A	N/A	-	-
(3) State permitted practices that increase/(decrease) NAIC	N/A	N/A	N/A	-	-
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$ <u>(182,676,498)</u>	\$ <u>(13,882,911)</u>
<b>SURPLUS</b>					
(5) State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$ 15,347,803,364	\$ 15,423,989,956
(6) State prescribed practices that increase/(decrease) NAIC	N/A	N/A	N/A	-	-
(7) State permitted practices that increase/(decrease) NAIC	N/A	N/A	N/A	-	-
(8) NAIC SAP (5-6-7=8)	XXX	XXX	XXX	\$ <u>15,347,803,364</u>	\$ <u>15,423,989,956</u>

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

c. Accounting policy:

(1-5) No change

(6) For loan-backed and structured securities, such as asset-backed securities (ABS), mortgage-backed securities (MBS), including residential mortgage-backed securities and commercial mortgage-backed securities, and structured securities, including collateralized debt obligations (CDOs), amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies.

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

(7-11) No change

(12) In March 2017, the Company recorded an impairment on previously capitalized software costs of \$220,750,323 million. This impairment was recorded as general insurance expenses in the Statutory Statements of Operations. This impairment did not impact surplus, as the asset was previously nonadmitted.

(13-14) No change

d. Going concern - No change

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

a. For the three months ended March 31, 2017, corrections of prior year errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		Correction of Asset or Liability Balances
	Prior Years Net Income	Current Year Surplus	
Policyholders' reserves	\$ 7,931,524	\$ 7,931,524	\$ (7,931,524)
Other than invested assets	4,115,825	4,115,825	4,115,825
Partnerships and limited liability companies	-	(1,477,867)	(1,477,867)
Total	\$ 12,047,349	\$ 10,569,482	\$ (5,293,566)

Of the \$10,569,482 increase to surplus for prior year errors, \$12,047,349 was recorded as prior period adjustments with an offset of \$1,477,867 was recorded as a change in nonadmitted assets, net of tax in the Statutory Statements of Changes in Surplus.

## NOTES TO FINANCIAL STATEMENTS

For the three months ended March 31, 2016, corrections of prior year errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		Correction of Asset or Liability Balances
	Prior Years 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
Total	\$ (19,361,709)	\$ (24,648,368)	\$ 24,648,368

Of the \$24,648,368 decrease to surplus for prior year errors, \$19,361,709 was recorded as prior period adjustments and \$5,286,659 was recorded as a change in net unrealized capital gains (losses), net of tax in the Statutory Statements of Changes in Surplus.

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

b. **Adoption of new accounting standards**

In April 2016, the NAIC adopted modifications to SSAP No. 41R, *Surplus Notes*, which was effective January 1, 2017. These modifications require surplus notes with a designation equivalent to NAIC 3 through 6 to be reported at the lesser of amortized cost or fair value. Currently these surplus notes are reported at amortized cost. The modifications also incorporate guidance to clarify when surplus notes shall be nonadmitted, an unrealized loss should be recognized, and an other-than-temporary (OTTI) assessment should be performed. The adoption of this guidance did not have an impact on the Company's financial statements.

In June 2016, the NAIC adopted modifications to SSAP No. 26, *Bonds, Excluding Loan-backed and Structured Securities*, and SSAP No. 43R, *Loan-backed and Structured Securities*, which were effective January 1, 2017 and will be prospectively applied. These modifications clarified that the amount of prepayment penalties or acceleration fees reported as investment income should equal the total proceeds received less the par value of the investment; and any difference between the carrying value and the par value at the time of disposal will be reported as realized capital gains and losses. These modifications also added specific disclosures related to securities sold, redeemed or otherwise disposed of as a result of a callable feature. These modifications did not have a significant impact on the Company's financial statements.

In June 2016, the NAIC adopted SSAP No. 103R, *Transfers and Servicing of Financial Assets and Extinguishment of Liabilities*, which was effective January 1, 2017. These modifications require that obligations to deliver securities resulting from short sales be accounted for as contra-assets, and measured at fair value with changes in fair value recognized as unrealized gains and losses. The guidance also required new disclosures about short sale transactions. The unrealized gains and losses are realized upon settlement of the short sale obligation. Interest on short sale positions is accrued periodically and reported as interest expense. The adoption of this guidance did not have an impact on the Company's financial statements.

In June 2016, the NAIC adopted substantive revisions to SSAP No. 51, *Life Contracts*, to incorporate references to the Valuation Manual (VM) and to facilitate the implementation of PBR, which was effective on January 1, 2017. The adoption of PBR only applies to new policies issued after January 1, 2017; however the Company has not yet adopted these revisions. The Company currently uses formulas and assumptions to determine reserves as prescribed by state laws and regulations. Under PBR, the Company will be required to hold the higher of (a) the reserve using prescribed factors and (b) the PBR reserve which considers a wide range of future economic conditions, computed using justified company experience factors, such as mortality, policyholder behavior and expenses. The Company plans to adopt these revisions to SSAP No.51 using the 3-year phased in approach by no later than January 1, 2020 and it has not yet determined the effect of adopting the guidance on its financial statements.

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

**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

## NOTES TO FINANCIAL STATEMENTS

## d. Loan-backed and structured securities:

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

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

## OTTI recognized in the first quarter

a. Intent to sell	\$	-	\$	-	\$	-
b. Inability or lack of intent to retain the investment in the security for a period of time sufficient to recover the amortized cost basis		42,292,770	-	429,458	41,863,312	
c. Total first quarter	<u>\$</u>	<u>42,292,770</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>41,863,312</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		-	-	-	-	
f. Total second quarter	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</u>	<u>\$</u>	<u>-</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>429,458</u>
-----------	----------	-----------	----------------

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

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

CUSIP	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value at Time of OTTI	Date of Financial Instrument Where Reported
17307GH76	\$ 274,893.76	\$ 44,730.49	\$ (230,163.27)	\$ 44,730.49	\$ 152,776.75	March 31, 2017
22541QJR4	11,175.33	53.52	(11,121.81)	53.52	6,865.92	March 31, 2017
32051DCK6	182,177.17	160,728.11	(21,449.06)	160,728.11	179,180.14	March 31, 2017
45660LYW3	504,390.54	471,422.84	(32,967.70)	471,422.84	457,164.86	March 31, 2017
55274SAM3	225,789.88	209,839.17	(15,950.71)	209,839.17	218,832.17	March 31, 2017
86358RA23	1,326,199.14	1,253,635.93	(72,563.21)	1,253,635.93	1,289,098.83	March 31, 2017
86359ACG6	6,287.32	48.80	(6,238.52)	48.80	2.41	March 31, 2017
77277LAF4	22,537,014.10	22,514,590.18	(22,423.92)	22,514,590.18	31,699,906.98	March 31, 2017
77277LAH0	1,136,181.78	1,135,087.94	(1,093.84)	1,135,087.94	2,662,526.10	March 31, 2017
77277LAJ6	16,088,661.07	16,073,174.85	(15,486.22)	16,073,174.85	19,947,746.34	March 31, 2017
<b>Totals</b>	<u>\$ 42,292,770.09</u>	<u>\$ 41,863,311.83</u>	<u>\$ (429,458.26)</u>	<u>\$ 41,863,311.83</u>	<u>\$ 56,614,100.50</u>	

- (4) As of March 31, 2017, 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	\$	(29,617,008)
2. 12 months or longer	\$	(96,906,059)
b. The aggregate related fair value of securities with unrealized losses:		
1. Less than 12 months	\$	2,720,326,404
2. 12 months or longer	\$	3,956,634,119

## NOTES TO FINANCIAL STATEMENTS

- (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:  
A structured note is a direct debt issuance by a corporation, municipality, or government entity, ranking pari-passu with the issuer's other debt issuance of equal seniority where either: (a) the coupon and/or principal payments are linked, in whole or in part, to prices or payment streams from index or indices, or assets deriving their value from other than the issuer's credit quality, or (b) the coupon and/or principal payments are leveraged by a formula that is different from either a fixed coupon, or a non-leveraged floating rate coupon linked to an interest rate index, including but not limited to the London Interbank Offered Rate (LIBOR) or the prime rate. As structured notes are issuer obligations without a trust, they are within the scope of SSAP No. 26, "Bonds, Excluding Loan-backed and Structured Securities" (SSAP No. 26). Structured notes are different than the asset backed structured securities, which are accounted for under SSAP No. 43R, "Revised - Loan-Backed and Structured Securities" (SSAP No. 43R), as they lack either a trust or assets backing them. The disclosure below allows regulators to assess the volume of activity in structured notes and to determine whether additional accounting or reporting revisions, such as valuation and risk-based capital, are needed. To satisfy this request, the Company is required to separately identify structured notes, on a CUSIP basis and provide information by CUSIP for actual cost, fair value, book/adjusted carrying value, and whether the structured note is a mortgage-referenced security. The following sets forth the actual cost, fair value and carrying value of structured notes as of March 31, 2017:

CUSIP Identification	Actual Cost	Fair Value	Book / Adjusted Carrying Value	Mortgage-Referenced Security (YES/NO)
30711XBE3	\$ 2,329,090	\$ 2,334,780	\$ 2,329,090	YES
3137G0EQ8	2,628,061	2,632,670	2,628,061	YES
3137G0HQ5	4,499,060	4,519,554	4,499,060	YES
912810FR4	4,944,283	6,270,289	4,869,689	NO
912810RF7	198,256,779	224,009,391	198,041,053	NO
912828GX2	1,982,647	2,079,995	1,812,918	NO
912810PS1	1,874,118	2,704,098	1,885,701	NO
391164AF7	8,467,560	8,330,054	8,335,621	NO
5262720	1,262,834	1,264,200	1,269,407	NO
Total	\$ 226,244,432	\$ 254,145,031	\$ 225,670,600	XXX

- l. 5\* Securities - 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 MassMutual Holding LLC (MMHLLC) of \$274,107,745 through the three months ended March 31, 2017 and \$100,000,000 through the three months ended March 31, 2016.

On July 1, 2016, MassMutual's purchase of MSI Financial Services (MSIFS) was accounted for under the statutory purchase method, classified as investments in common stocks – subsidiaries and affiliates at a cost of \$126,045,875 which included the recognition of statutory goodwill of \$38,245,161. On March 25, 2017, MassMutual contributed MSIFS to MMHLLC at carrying value of \$120,185,240, which excluded the remaining unamortized statutory goodwill of \$35,376,774. The remaining unamortized statutory goodwill was transferred from MassMutual's carrying value of MSIFS to its carrying value of MMHLLC. MSIFS was subsequently merged with MMHLLC's other broker dealer, MML Investor Services.

The Company contributed additional capital of \$14,172,920 to MMHLLC through the three months ended March 31, 2017 and \$670,164,387 through the three months ended March 31, 2016.

- d-f. No change

## NOTES TO FINANCIAL STATEMENTS

- g. Subsidiaries of 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 \$894,931,685 as of March 31, 2017.

(2) FHLB Boston capital stock

a. Aggregate totals:

		March 31, 2017		
		1 Total 2+3	2 General Account	3 Separate Account
1. Current Year:				
(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 or Estimated Borrowing Capacity as Determined by the Insurer	\$	2,000,000,000	2,000,000,000	\$ -
2. Prior Year-end:				
(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 or Estimated Borrowing Capacity as determined by the Insurer	\$	2,000,000,000	2,000,000,000	\$ -

b. Membership Stock (Class A and B) Eligible and Not Eligible for Redemption:

		Three Months Ended March 31, 2017				
Membership Stock	1 Current Year Total	2 Not Eligible for Redemption	Eligible for Redemption			
			3 Less Than 6 Months	4 6 Months to Less Than 1 Year	5 1 to Less Than 3 Years	6 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 March 31, 2017:

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

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,224,828,748	\$ 1,126,084,091	\$ 1,103,883,829

## 2. Current year general account:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,224,828,748	\$ 1,126,084,091	\$ 1,103,883,829

## 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 three months ended March 31, 2017:

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

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,234,077,139	\$ 1,126,695,711	\$ 1,107,803,111

## 2. Current year general account:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,234,077,139	\$ 1,126,695,711	\$ 1,107,803,111

## 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:

March 31, 2017

	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	1,103,883,829	1,103,883,829	-	1,103,883,829
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 1,103,883,829</u>	<u>\$ 1,103,883,829</u>	<u>\$ -</u>	<u>\$ 1,103,883,829</u>

## 2. Prior Year-end:

December 31, 2016

	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:

Three Months Ended March 31, 2017

	1 Total 2+3	2 General Account	3 Separate Account
1. Debt	\$ -	\$ -	\$ -
2. Funding	1,107,803,111	1,107,803,111	-
3. Other	-	-	-
4. Aggregate	<u>\$ 1,107,803,111</u>	<u>\$ 1,107,803,111</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 sponsors multiple employee benefit plans, providing retirement, life, health and other benefits to employees, certain employees of unconsolidated subsidiaries, agents, general agents retirees who meet plan eligibility requirements

(2-3) No change

	Three Months Ended March 31,					
	2017	2016	2017	2016	2017	2016
	Pension Benefits		Postretirement Benefits		Special or Contractual Benefits per SSAP No 11	
(4) Components of net periodic benefit cost						
a. Service cost	\$ 31,487,267	\$ 21,293,760	\$ 3,050,000	\$ 2,550,000	\$ -	\$ -
b. Interest cost	28,079,415	28,277,446	3,175,000	2,925,000	-	-
c. Expected return on plan assets	(36,857,375)	(35,995,628)	(25,000)	(25,000)	-	-
d. Transition asset or obligation	-	-	-	-	-	-
e. Gains and losses	16,299,512	17,571,350	450,000	800,000	-	-
f. Prior service cost or (credit) settlement or curtailment	780,671	780,671	(1,375,000)	(1,375,000)	-	-
h. Total net periodic benefit cost	<u>\$ 39,789,490</u>	<u>\$ 31,927,599</u>	<u>\$ 5,275,000</u>	<u>\$ 4,875,000</u>	<u>\$ -</u>	<u>\$ -</u>

(5-21) No change

b-j. No change

**NOTES TO FINANCIAL STATEMENTS****Note 13 – Capital and Surplus, Shareholders' Dividend Restrictions and Quasi-Reorganizations**

(1-3) No change

(4) The Company received cash dividends, recorded in net investment income, from MMHLLC of \$274,107,745 in 2017 and \$100,000,000 in 2016.

(5-10) No change

(11) The Company executed a tender offer in March 2017 for \$440,000,000 par value of surplus notes maturing in 2039. The Company paid \$711,000,000 of cash to settle the tender offer which resulted in a pre-tax loss of \$271,000,000. This loss is included in net realized gains (losses) within the Statutory Statements of Operations and is net of a tax benefit of \$95,000,000.

The following summarizes the surplus notes issued and outstanding as of March 31, 2017:

Issue Date	Interest Rate	Par Value (Face Amount of Notes)	Carrying Value of Note*	Interest And/or Principal Paid Current Year	Total Interest and/or Principal Paid	Unapproved Interest and/or Principal	Date of Maturity
11/15/1993	7.625%	\$ 250,000,000	\$ 250,000,000	\$ -	\$ 438,437,500	\$ 7,148,438	11/15/2023
03/01/1994	7.500%	100,000,000	100,000,000	3,750,000	168,750,000	625,000	03/01/2024
05/12/2003	5.625%	250,000,000	249,372,291	-	189,960,937	5,273,438	05/15/2033
06/01/2009	8.875%	310,000,000	307,045,183	12,257,361	499,218,750	9,170,833	06/01/2039
01/17/2012	5.375%	400,000,000	398,889,071	-	104,752,778	7,166,666	12/01/2041
04/15/2015	4.500%	500,000,000	491,230,235	-	33,750,000	-	04/15/2065
03/20/2017	4.500%	475,000,000	470,722,552	-	-	775,833	04/01/2077
Total		\$ 2,285,000,000	\$ 2,267,259,332	\$ 16,007,361	\$ 1,434,869,965	\$ 30,160,208	

These notes are unsecured and subordinate to all present and future indebtedness of the Company, all policy claims and all prior claims against the Company as provided by the Massachusetts General Laws. The surplus notes are all held by bank custodians for unaffiliated investors. All issuances were approved by the Division.

All payments of interest and principal are subject to the prior approval of the Division. Anticipated sinking fund payments are due for the notes issued in 1993 and 1994 as follows: \$62,500,000 in 2021, \$87,500,000 in 2022, \$150,000,000 in 2023 and \$50,000,000 in 2024. There are no sinking fund requirements for the notes issued in 2003, 2009, 2012 or 2015. Scheduled interest on the notes issued in 1993 and 2003 is payable on May 15 and November 15 of each year to holders of record on the preceding May 1 or November 1, respectively. Scheduled interest on the note issued in 1994 is payable on March 1 and September 1 of each year to holders of record on the preceding February 15 or August 15, respectively. Scheduled interest on the notes issued in 2009 and 2012 is payable on June 1 and December 1 of each year to holders of record on the preceding May 15 and November 15, respectively. Scheduled interest on the note issued in 2015 is payable on April 15 and October 15 of each year to holders of record on the preceding April 1 and October 1, respectively. Interest expense is not recorded until approval for payment is received from the Division. As of March 31, 2017, the unapproved interest was \$40,472,708. Through March 31, 2017, the Company paid cumulative interest of \$1,434,869,965 on surplus notes. Interest of \$16,007,361 was approved and paid during the three months ended March 31, 2017. Interest of \$151,187,500 was approved and paid during the year ended December 31, 2016.

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

a. Contingent commitments - No change

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 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. 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. Motions for summary judgment are pending. Mediation occurred in January 2017, which did not result in a settlement. The expected settlement does not have a significant financial impact on the Company.

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.



## NOTES TO FINANCIAL STATEMENTS

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. Fact discovery is complete and a trial has been set for June 2017. 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 January 2017, the parties reached a resolution to settle the lawsuit for \$37,500,000, which was recorded in December 2016 as a combination of policyholders' benefits, dividends to policyholders and general insurance expenses that include legal fees and other costs. The parties are in the process of seeking the court's approval of the settlement which is expected to occur in 2017.

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 an agreement to settle the matter. In November 2016, the court entered a final order and judgment approving the settlement. The final settlement did not have a significant financial impact on the Company.

In January 2016, Deborah Bishop-Bristol 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 federal court in Massachusetts. The court recently dismissed all of the plaintiff's claims and the plaintiff has filed an amended complaint. 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 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 2017 or 2016.

(3) No change

(4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2017 or 2016.

(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 first quarter ended March 31, 2017 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.

**NOTES TO FINANCIAL STATEMENTS**

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 LIBOR, cash flow estimates and earnings before interest, taxes, depreciation and amortization estimates. Investments that are priced with such unobservable inputs are classified within Level 3 of the fair value hierarchy.

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

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

The fair value of 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 Bloomberg Barclays Global-Aggregate Total Return 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.

## NOTES TO FINANCIAL STATEMENTS

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

	March 31, 2017			
	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
<b>Bonds:</b>				
States, territories and possessions	\$ -	\$ 7,710,000	\$ -	\$ 7,710,000
Special revenue	-	1,729,713	-	1,729,713
Industrial and miscellaneous	-	8,174,952	47,940,193	56,115,145
Parent, subsidiaries and affiliates	-	46,396,966	53,204,417	99,601,383
Preferred stocks	-	-	2,855,983	2,855,983
Common stock - subsidiaries and affiliates	560,909,367	-	68,398,558	629,307,925
Common stock - unaffiliated	911,923,786	-	261,502,673	1,173,426,459
<b>Derivatives:</b>				
Interest rate swaps	-	7,585,459,809	-	7,585,459,809
Options	-	662,401,559	-	662,401,559
Currency swaps	-	797,932,234	-	797,932,234
Forward contracts	-	17,580,661	-	17,580,661
Credit default swaps	-	1,801,765	-	1,801,765
Separate account assets	41,911,093,263	22,162,606,365	739,661,666	64,813,361,294
Total financial assets carried at fair value	\$ 43,383,926,416	\$ 31,291,794,024	\$ 1,173,563,490	\$ 75,849,283,930
<b>Financial liabilities:</b>				
<b>Derivatives:</b>				
Interest rate swaps	\$ -	\$ 5,452,572,430	\$ -	\$ 5,452,572,430
Options	-	3,439,094	-	3,439,094
Currency swaps	-	51,118,766	-	51,118,766
Forward contracts	-	33,733,688	-	33,733,688
Credit default swaps	-	545,866	-	545,866
Total financial liabilities carried at fair value	\$ -	\$ 5,541,409,844	\$ -	\$ 5,541,409,844

The Company reviews the fair value hierarchy classifications each reporting period. Changes in the observability of the valuation attributes and the level of market activity may result in a reclassification of certain financial assets or liabilities between fair value hierarchy classifications. Such reclassifications are reported as transfers between levels at the beginning fair value for the reporting period in which the changes occur. For the period ended March 31, 2017, \$298,342,115 of equity securities were transferred from Level 2 to Level 1.

## NOTES TO FINANCIAL STATEMENTS

	December 31, 2016			
	Level 1	Level 2	Level 3	Total
<b>Financial assets:</b>				
<b>Bonds:</b>				
States, territories and possessions	\$ -	\$ 7,543,820	\$ -	\$ 7,543,820
Special revenue	-	1,229,483	-	1,229,483
Industrial and miscellaneous	-	3,305,960	56,833,539	60,139,499
Parent, subsidiaries and affiliates	-	57,519,736	51,963,109	109,482,845
Preferred stocks	-	-	2,734,341	2,734,341
Common stock - subsidiaries and affiliates	486,881,832	23,261,703	63,196,191	573,339,726
Common stock - unaffiliated	581,611,509	349,552,279	188,576,330	1,119,740,118
<b>Derivatives:</b>				
Interest rate swaps	-	8,084,068,385	-	8,084,068,385
Options	-	653,128,451	-	653,128,451
Currency swaps	-	936,681,635	-	936,681,635
Forward contracts	-	51,760,755	-	51,760,755
Credit default swaps	-	3,816,266	-	3,816,266
Separate account assets	39,641,341,033	21,824,706,549	737,948,300	62,203,995,882
<b>Total financial assets carried at fair value</b>	<b>\$ 40,709,834,374</b>	<b>\$ 31,996,575,022</b>	<b>\$ 1,101,251,810</b>	<b>\$ 73,807,661,206</b>
<b>Financial liabilities:</b>				
<b>Derivatives:</b>				
Interest rate swaps	\$ -	\$ 5,915,235,253	\$ -	\$ 5,915,235,253
Options	-	5,791,830	-	5,791,830
Currency swaps	-	36,740,542	-	36,740,542
Forward contracts	-	55,486,004	-	55,486,004
Credit default swaps	-	789,072	-	789,072
<b>Total financial liabilities carried at fair value</b>	<b>\$ -</b>	<b>\$ 6,014,042,701</b>	<b>\$ -</b>	<b>\$ 6,014,042,701</b>

For the year ended December 31, 2016, 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 01/01/2017		Transfers <sup>(1)</sup>		Gains (Losses) in Net Income		Gains (Losses) in Surplus		Balance as of 03/31/2017	
	In	Out	In	Out	Net Income	Surplus	Purchases	Issuances	Sales	Settlements
<b>Financial assets:</b>										
<b>Bonds:</b>										
Industrial and miscellaneous	\$ 56,833,539	\$ -	\$ (9,590,571)	\$ 274,991	\$ 572,731	\$ 416,733	\$ -	\$ (537,141)	\$ (30,089)	\$ 47,940,193
Parent, subsidiaries and affiliates	51,963,109	-	-	1	1,241,307	-	-	-	-	53,204,417
Preferred stock	2,734,341	2,401,382	(2,279,740)	-	-	-	-	-	-	2,855,983
Common stock - subsidiaries and affiliates	63,196,191	-	(94,845)	(5,737)	4,788,549	514,400	-	-	-	68,398,558
Common stock - unaffiliated	188,576,330	74,053,062	(6,844,648)	-	2,178,726	4,105,703	-	-	(566,500)	261,502,673
Derivatives:										
Separate account assets	737,948,300	-	-	17,865,140	-	32,178,545	-	(47,204,045)	(1,126,274)	739,661,666
<b>Total financial assets</b>	<b>\$ 1,101,251,810</b>	<b>\$ 76,454,444</b>	<b>\$ (18,809,804)</b>	<b>\$ 18,134,395</b>	<b>\$ 8,781,313</b>	<b>\$ 37,215,381</b>	<b>\$ -</b>	<b>\$ (47,741,186)</b>	<b>\$ (1,722,863)</b>	<b>\$ 1,173,563,490</b>

<sup>(1)</sup>Level 3 transfers in are assets that are consistently carried at fair value but have had a level change. The common stock unaffiliated assets were transferred from Level 2 to Level 3 due to a change in the observability of pricing inputs.

	Balance as of 01/01/2016		Transfers <sup>(1)</sup>		Gains (Losses) in Net Income		Gains (Losses) in Surplus		Balance as of 12/31/2016	
	In	Out	In	Out	Net Income	Surplus	Purchases	Issuances	Sales	Settlements
<b>Financial assets:</b>										
<b>Bonds:</b>										
Industrial and miscellaneous	\$ 21,822,270	\$ 62,018,704	\$ (400,000)	\$ (11,937,984)	\$ (13,183,256)	\$ 408,913	\$ 4,057,059	\$ (61)	\$ (5,952,106)	\$ 56,833,539
Parent, subsidiaries, and affiliates	44,987,196	8,962,866	-	564,823	6,975,913	1,953,045	10,982,187	(2,523,873)	(19,939,048)	51,963,109
Preferred Stock	2,433,928	-	(1,565,363)	-	(92,373)	1,958,149	-	-	-	2,734,341
Common stock - subsidiaries and affiliates	39,651,503	15,896,989	-	18,529	7,478,296	-	369,403	(18,529)	(200,000)	63,196,191
Common stock - unaffiliated	179,143,468	4,578,828	-	(490,006)	(4,892,076)	12,022,672	791,170	(1,726,973)	(850,753)	188,576,330
Separate account assets	725,326,815	5,096,000	-	21,359,610	-	149,191,756	-	(152,961,206)	(10,064,675)	737,948,300
<b>Total financial assets</b>	<b>\$ 1,013,365,180</b>	<b>\$ 96,553,387</b>	<b>\$ (1,965,363)</b>	<b>\$ 9,514,972</b>	<b>\$ (3,713,496)</b>	<b>\$ 165,534,535</b>	<b>\$ 16,199,819</b>	<b>\$ (157,230,642)</b>	<b>\$ (37,006,582)</b>	<b>\$ 1,101,251,810</b>

<sup>(1)</sup>Level 3 transfers in are assets that are consistently carried at fair value but have had a level change, are 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 the lower of cost or market carrying basis. Industrial and miscellaneous bonds were transferred from Level 2 to Level 3 due to a change in the observability of pricing inputs.

## NOTES TO FINANCIAL STATEMENTS

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.

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 and LIBOR basis curves, interest rate volatility, swap yield curve, currency spot rates, cross currency basis curves and dividend yields. Due to the observability of the significant inputs to these fair value measurements, they are classified as Level 2.

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

5. Derivative assets and liabilities fair value disclosures on a gross basis are included in paragraph 1 above. Since there are no derivative assets or liabilities classified in Level 3, the reconciliation disclosures required under paragraphs 2 through 4 are not applicable.

- b. The Company provides additional fair value information in Note 21. "Other Items".

## NOTES TO FINANCIAL STATEMENTS

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

	March 31, 2017					
	Aggregate Fair Value	Admitted Assets	Level 1	Level 2	Level 3	Not Practicable (Carrying Value)
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 7,458,071,768	\$ 6,920,487,368	\$ -	\$ 7,454,445,174	\$ 3,626,594	-
All other governments	1,089,829,108	1,048,441,069	-	1,019,173,887	70,655,221	-
States, territories and possessions	709,914,829	661,342,935	-	709,914,829	-	-
Political subdivisions	521,389,071	486,908,998	-	521,389,071	-	-
Special revenue	6,210,864,330	5,630,047,356	-	6,200,551,316	10,313,014	-
Industrial and miscellaneous	66,779,532,940	64,779,355,699	-	40,422,221,495	26,357,311,445	-
Parent, subsidiaries and affiliates	6,522,933,774	6,410,200,344	-	464,553,570	6,058,380,204	-
Preferred stocks	521,805,153	490,812,085	44,489,493	-	477,315,660	-
Common stocks - subsidiaries and affiliates <sup>(1)</sup>	629,307,925	629,307,925	560,909,367	-	68,398,558	-
Common stocks - unaffiliated	1,173,426,459	1,173,426,459	911,923,786	-	261,502,673	-
Mortgage loans - commercial	19,757,981,195	19,233,689,879	-	-	19,757,981,195	-
Mortgage loans - residential	1,831,509,410	1,875,528,789	-	-	1,831,509,410	-
Cash, cash equivalents and short-term investments	3,741,790,435	3,741,790,435	61,603,885	3,680,186,550	-	-
Derivatives:						
Interest rate swaps	8,029,258,389	7,585,459,809	-	8,029,258,389	-	-
Options	662,401,559	662,401,559	-	662,401,559	-	-
Currency swaps	797,932,234	797,932,234	-	797,932,234	-	-
Forward contracts	17,580,661	17,580,661	-	17,580,661	-	-
Credit default swaps	45,865,051	34,104,096	-	45,865,051	-	-
Separate account assets	64,813,361,294	64,813,361,294	41,911,093,263	22,162,606,365	739,661,666	-
Financial liabilities:						
Repurchase agreements	4,403,209,627	4,403,209,627	-	4,403,209,627	-	-
Commercial paper	249,820,611	249,820,611	-	249,820,611	-	-
Guaranteed interest contracts	7,160,000,408	7,127,566,085	-	-	7,160,000,408	-
Group annuity contracts and other deposits	18,786,772,478	18,254,247,664	-	-	18,786,772,478	-
Individual annuity contracts	8,151,947,461	6,709,114,799	-	-	8,151,947,461	-
Supplementary contracts	1,156,106,464	1,154,942,401	-	-	1,156,106,464	-
Derivatives:						
Interest rate swaps	5,452,572,430	5,452,572,430	-	5,452,572,430	-	-
Options	3,439,094	3,439,094	-	3,439,094	-	-
Currency swaps	51,118,766	51,118,766	-	51,118,766	-	-
Forward contracts	33,733,688	33,733,689	-	33,733,688	-	-
Credit default swaps	1,581,405	1,692,622	-	1,581,405	-	-

<sup>(1)</sup> Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had a statutory carrying value of \$13,424,563,506.

## NOTES TO FINANCIAL STATEMENTS

December 31, 2016

	Aggregate		Admitted			Not Practicable (Carrying Value)
	Fair Value	Assets	Level 1	Level 2	Level 3	
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 7,327,249,403	\$ 6,819,359,058	\$ -	\$ 7,323,337,358	\$ 3,912,045	\$ -
All other governments	934,303,664	923,699,348	-	863,291,001	71,012,663	-
States, territories and possessions	723,249,478	676,412,175	-	723,249,478	-	-
Political subdivisions	514,142,376	482,667,254	-	514,142,376	-	-
Special revenue	6,166,004,840	5,604,643,065	-	6,133,478,774	32,526,066	-
Industrial and miscellaneous	64,477,981,544	62,806,781,196	-	39,230,699,303	25,247,282,241	-
Parent, subsidiaries and affiliates	6,604,482,057	6,508,255,599	-	615,097,030	5,989,385,027	-
Preferred stocks	481,903,752	464,925,273	503,400	30,605,241	450,795,111	-
Common stock - subsidiaries and affiliates <sup>(1)</sup>	573,339,726	573,339,726	486,881,832	23,261,703	63,196,191	-
Common stock - unaffiliated	1,119,740,118	1,119,740,118	581,611,509	349,552,279	188,576,330	-
Mortgage loans - commercial	19,660,034,378	19,193,187,754	-	-	19,660,034,378	-
Mortgage loans - residential	1,728,006,318	1,767,903,811	-	-	1,728,006,318	-
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	8,633,029,641	8,084,068,386	-	8,633,029,641	-	-
Options	653,128,451	653,128,451	-	653,128,451	-	-
Currency swaps	936,681,635	936,681,635	-	936,681,635	-	-
Forward contracts	51,760,755	51,760,756	-	51,760,755	-	-
Credit default swaps	39,763,838	37,821,597	-	39,763,838	-	-
Separate account assets	62,203,995,882	62,203,995,882	39,641,341,033	21,824,706,549	737,948,300	-
Financial liabilities:						
Repurchase agreements	5,130,020,438	5,130,020,438	-	5,130,020,438	-	-
Commercial paper	276,817,818	276,817,818	-	276,817,818	-	-
Guaranteed investment contracts	7,028,012,044	7,090,435,309	-	-	7,028,012,044	-
Group annuity contracts and other deposits	19,661,467,866	19,096,549,135	-	-	19,661,467,866	-
Individual annuity contracts	8,272,459,416	6,714,580,201	-	-	8,272,459,416	-
Supplementary contracts	1,153,297,345	1,152,123,682	-	-	1,153,297,345	-
Derivatives:						
Interest rate swaps	5,960,272,303	5,915,235,253	-	5,960,272,303	-	-
Options	5,791,830	5,791,830	-	5,791,830	-	-
Currency swaps	36,740,542	36,740,542	-	36,740,542	-	-
Forward contracts	55,486,004	55,486,004	-	55,486,004	-	-
Credit default swaps	789,072	789,072	-	789,072	-	-

<sup>(1)</sup>Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had statutory carrying values of \$13,670,304,964.

- d. For the period ended March 31, 2017, 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 and MassMutual International LLC (MMI), are accounted for using the statutory equity method. The Company accounts for the value of MMHLLC and MMI at its underlying U.S. generally accepted accounting principles equity value adjusted to remove certain nonadmitted and intangible assets. MMHLLC's value is also adjusted by 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 \$2,576,602,825 as of March 31, 2017 and \$2,675,250,656 as of December 31, 2016. Operating results, less dividend distributions, for MMHLLC are reflected as net unrealized capital gains (losses) in the Statutory Statements of Changes in Surplus. Dividend distributions received from MMHLLC are recorded in net investment income and are limited to MMHLLC's US GAAP retained earnings. The cost basis of common stocks – subsidiaries and affiliates is adjusted for impairments deemed to be other than temporary.

**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.

## NOTES TO FINANCIAL STATEMENTS

### 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.

### 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 Company uses derivatives, such as interest rate swaps and swaptions, as well as synthetic assets to reduce interest rate and duration imbalances determined in asset/liability analyses.

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:

	March 31, 2017			Three Months Ended March 31, 2017
	Actual Cost	Carrying Value	Fair Value	OTTI
Alt-A:				
a. Residential mortgage-backed securities	\$ 318,837,492	\$ 339,319,825	\$ 405,794,915	\$ 44,090
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	23,197,290	24,368,734	28,845,832	18,401
f. Other assets	-	-	-	-
g. Total	<u>\$ 342,034,782</u>	<u>\$ 363,688,559</u>	<u>\$ 434,640,747</u>	<u>\$ 62,491</u>

	March 31, 2017			Three Months Ended March 31, 2017
	Actual Cost	Carrying Value	Fair Value	OTTI
Subprime:				
a. Residential mortgage-backed securities	\$ 282,638,968	\$ 321,606,646	\$ 380,436,474	\$ -
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	13,174,470	14,340,731	15,691,228	3,331
f. Other assets	-	-	-	-
g. Total	<u>\$ 295,813,439</u>	<u>\$ 335,947,377</u>	<u>\$ 396,127,702</u>	<u>\$ 3,331</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.

	December 31, 2016			Year Ended December 31, 2016
	Actual Cost	Carrying Value	Fair Value	OTTI
Alt-A:				
a. Residential mortgage-backed securities	\$ 475,024,785	\$ 346,806,874	\$ 421,952,463	\$ 386,991
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	35,352,414	25,011,780	30,215,621	3,072
f. Other assets	-	-	-	-
g. Total	<u>\$ 510,377,199</u>	<u>\$ 371,818,654</u>	<u>\$ 452,168,084</u>	<u>\$ 390,063</u>

	December 31, 2016			Year Ended December 31, 2016
	Actual Cost	Carrying Value	Fair Value	OTTI
Subprime:				
a. Residential mortgage-backed securities	\$ 426,575,800	\$ 339,118,699	\$ 402,752,703	\$ 42,634
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	2,739,687	-	215,700	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	20,888,528	15,726,076	17,137,869	11,949
f. Other assets	-	-	-	-
g. Total	<u>\$ 450,204,015</u>	<u>\$ 354,844,775</u>	<u>\$ 420,106,272</u>	<u>\$ 54,583</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.

- (2) 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 May 10, 2017, the date the financial statements were available to be issued.

On April 13, 2017, the Company issued a \$500,000,000 funding agreement with a 2.5% fixed rate and a 5-year maturity.

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** - No Change

**Note 24 – Retrospectively Rated Contracts and Contracts Subject to Redetermination**

a – d. No change.

e. The Company does not write any accident and health insurance premium that is subject to the Affordable Care Act risk-sharing provisions.

**Note 25 – Change in Incurred Losses and Loss Adjustment Expenses**

There was no increase to reserves in 2017 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
Baring International Investment Limited .....	London, UK .....				YES
Barings Securities, LLC .....	Boston, MA .....				YES
MML Distributors, LLC .....	Enfield, CT .....				YES
MML Investment Advisers, LLC .....	Enfield, CT .....				YES
MML Investors Services, LLC .....	Springfield, MA .....				YES
MML Strategic Distributors, LLC .....	Springfield, MA .....				YES
MMLISI Financial Alliances, LLC .....	Springfield, MA .....				YES
OppenheimerFunds Distributor, Inc. ....	New York, NY .....				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 [ ] No [ X ]
- 9.21 If the response to 9.2 is Yes, provide information related to amendment(s).
- 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: ..... \$ .....1,350,566,624
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 .....   | \$ 6,508,255,596                                       | \$ 6,237,074,558  |
| 14.22 Preferred Stock .....   | \$ .....   | \$ .....  |
| 14.23 Common Stock .....  | \$ 13,670,494,513                                      | \$ 13,424,747,319                                       |
| 14.24 Short-Term Investments .....  | \$ .....   | \$ .....  |
| 14.25 Mortgage Loans on Real Estate .....   | \$ .....   | \$ .....  |
| 14.26 All Other .....   | \$ 3,484,857,931                                       | \$ 3,569,595,692  |
| 14.27 Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26) ..... | \$ 23,663,608,040                                      | \$ 23,231,417,569                                       |
| 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.

## 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 .....

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

1 Name of Firm or Individual	2 Affiliation
OFI Institutional Asset Management, Inc. ....	A .....
Barings LLC .....	A .....
Franklin Advisers, Inc. ....	U .....
Tortoise Capital Advisors, L.L.C. ....	U .....
PIMCO- Pacific Investment Management Company LLC .....	U .....
Earnest Partners LLC .....	U .....
KA Fund Advisors LLC .....	U .....
IFM Investors Pty Ltd .....	U .....
Ashmore Investment Management Limited .....	U .....
Jefferies Finance LLC .....	A .....
20 Gates Management, LLC .....	U .....

- 17.5097 For those firms/individuals listed in the table for Question 17.5, do any firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") manage more than 10% of the reporting entity's assets? ..... Yes [ ] No [ X ]

- 17.5098 For firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") listed in the table for Question 17.5, does the total assets under management aggregate to more than 50% of the reporting entity's assets? ..... Yes [ ] No [ X ]

- 17.6 For those firms or individuals listed in the table for 17.5 with an affiliation code of "A" (affiliated) or "U" (unaffiliated), provide the information for the table below.

1 Central Registration Depository Number	2 Name of Firm or Individual	3 Legal Entity Identifier (LEI)	4 Registered With	5 Investment Management Agreement (IMA) Filed
110363 .....	OFI Institutional Asset Management, Inc. ....		SEC .....	DS .....
106006 .....	Barings LLC .....	R6ZXK5P01NP6HXS1S07 .....	SEC .....	DS .....
104517 .....	Franklin Advisers, Inc. ....		SEC .....	NO .....
123711 .....	Tortoise Capital Advisors, L.L.C. ....		SEC .....	NO .....
	PIMCO- Pacific Investment Management Company LLC .....			
104559 .....	Earnest Partners LLC .....		SEC .....	NO .....
107926 .....	KA Fund Advisors LLC .....		SEC .....	NO .....
141037 .....	IFM Investors Pty Ltd .....		SEC .....	NO .....
162754 .....	Ashmore Investment Management Limited .....	R6ZXK5P01NP6HXS1S07 .....	SEC .....	NO .....
185402 .....	Jefferies Finance LLC .....		SEC .....	DS .....
162264 .....	20 Gates Management, LLC .....		SEC .....	NO .....
155480 .....				

- 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 03/31/2017, 128 issues for 111 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 \$1,457,931,147 or 1.43% 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 .....	\$ ..... 1,716,150
1.12	Residential Mortgages .....	\$ ..... 1,875,528,789
1.13	Commercial Mortgages .....	\$ ..... 19,231,973,729
1.14	Total Mortgages in Good Standing .....	\$ ..... 21,109,218,668
1.2	Long-Term Mortgages In Good Standing with Restructured Terms	
1.21	Total Mortgages in Good Standing with Restructured Terms .....	\$ .....
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 .....	\$ .....
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) .....	\$ ..... 21,109,218,668
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 .....	\$ .....
2.	Operating Percentages:	
2.1	A&H loss percent .....	68.604 %
2.2	A&H cost containment percent .....	1.200 %
2.3	A&H expense percent excluding cost containment expenses .....	67.404 %
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 MARCH 31, 2017 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE S - CEDED REINSURANCE**

Showing All New Reinsurance Treaties - Current Year to Date

1 NAIC Company Code	2 ID Number	3 Effective Date	4 Name of Reinsurer	5 Jurisdiction	6 Type of Reinsurer	7 Type of Reinsurer	8 Certified Reinsurer Rating (1 through 6)	9 Effective Date of Certified Reinsurer Rating
<b>NONE</b>								





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

### PART 1 – ORGANIZATIONAL CHART

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
<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 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
Invicta Advisors LLC	56-2574604		Delaware
Jefferies Finance LLC*	27-0105644		Delaware
Apex Credit Partners LLC	None		Delaware
JFIN Fund V 2017 LLC	None		Delaware
JFIN Fund III LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware
JFIN Co-Issuer Corporation	None		Delaware
JFIN Europe GP, S.a.r.l.	None		Luxembourg
Jefferies Finance Europe, SCSp	None		Luxembourg
Jefferies Finance Business Credit LLC	None		Delaware
JFIN Business Credit Fund I LLC	None		Delaware
JFIN High Yield Investments LLC	None		Delaware
JFIN LC Fund LLC	None		Delaware
JFIN Revolver CLO Holdings LLC	None		Delaware
JFIN CLO 2007 Ltd.	None		Cayman Islands
JFIN CLO 2012 Ltd.	None		Cayman Islands
JFIN CLO 2013 Ltd.	None		Cayman Islands
JFIN CLO 2014 Ltd.	None		Cayman Islands
JFIN CLO 2014-II Ltd.	None		Cayman Islands
JFIN MM CLO 2014 Ltd.*	None		Cayman Islands

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

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

### PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
JFIN CLO 2015 Ltd.*	None		Cayman Islands
JFIN CLO 2015-II Ltd.*	None		Cayman Islands
JFIN Revolver CLO Ltd.	None		Cayman Islands
JFIN Revolver CLO 2014 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2015 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2015-II Ltd.	None		Cayman Islands
JFIN CLO 2016 Ltd.*	None		Cayman Islands
JFIN CLO 2017 Ltd *	None		Cayman Islands
MassMutual Retirement Services, LLC	04-1590850		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Mezzanine Investor, LLC	04-1590850		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MMC Equipment Finance LLC	04-1590850		Delaware
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2009-A	27-1379258		Delaware
MMAF Equipment Finance LLC 2011-A	45-2589019		Delaware
MML Private Placement Investment Company I, LLC	04-1590850		Delaware
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
Pioneers Gate LLC	45-2738137		Delaware
MSC Holding Company, LLC	45-4376777		Delaware
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
MassMutual Holding LLC	04-2854319		Delaware
Fern Street LLC	37-1732913		Delaware
First Mercantile Trust Company	62-0951563		Tennessee
Haven Life Insurance Agency, LLC	46-2252944		Delaware
MassMutual Assignment Company	06-1597528		North Carolina
MassMutual Capital Partners LLC	04-1590850		Delaware
MassMutual Ventures LLC	47-1296410		Delaware
MM Rothesay Holdco US LLC	04-1590850		Delaware
MML Investors Services, LLC	04-1590850		Massachusetts
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
Society of Grownups, LLC	47-1466022		Massachusetts
MM Asset Management Holding LLC	45-4000072		Delaware
Barings LLC	51-0504477		Delaware
Barings Finance LLC	80-0875475		Delaware
BCF Europe Funding Limited	None		Ireland
BCF Senior Funding I LLC	None		Delaware

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

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

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

### PART 1 – ORGANIZATIONAL CHART

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

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

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

## PART 1 – ORGANIZATIONAL CHART

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

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

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

### PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
300 South Tryon LLC	04-1590850		Delaware
54 West Capital LLC	20-3887968		Delaware
Alexandria Towers Investors LLC	16-1720387		Delaware
Almack Mezzanine Fund I LP*	None		United Kingdom
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Almack Mezzanine Fund III LP*	None		United Kingdom
Barings Emerging Markets Corporate Bond Fund	None		Ireland
Barings Emerging Markets Local Debt Fund	None		Ireland
Barings Global Special Situations Credit Fund 1	None		Ireland
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		Delaware
Babson Capital Loan Strategies Fund, L.P.*	37-1506417		Delaware
Barings US High Yield Bond Fund*	None		Ireland
Babson CLO Ltd. 2007-I	None		Cayman Islands
Babson CLO Ltd. 2012-I	None		Cayman Islands
Babson CLO Ltd. 2012-II	None		Cayman Islands
Babson CLO Ltd. 2013-I	None		Cayman Islands
Babson CLO Ltd. 2013-II	98-1128827		Cayman Islands
Babson CLO Ltd. 2014-I	None		Cayman Islands
Babson CLO Ltd. 2014-II	None		Cayman Islands
Babson CLO Ltd. 2014-III	None		Cayman Islands
Babson CLO Ltd. 2015-I	None		Cayman Islands
Babson CLO Ltd. 2015-II	None		Cayman Islands
Babson CLO Ltd. 2016-I	None		Cayman Islands
Babson CLO Ltd. 2016-II	None		Cayman Islands
Babson Euro CLO 2014-I BV	None		Netherlands
Babson Euro CLO 2014-II BV	None		Netherlands
Babson Euro CLO 2015-I BV	None		Netherlands
Babson Euro CLO 2016-I BV	None		Netherlands
Babson Capital Global Credit Fund (Lux) SCSp, SIACV-SIF	None		Luxembourg
Baring Focused EAFE Equity Fund	11-3789446		Delaware
Baring Global Dynamic Asset Allocation Fund	30-0607379		Delaware
Barings Global Energy Infrastructure Fund I LP*	98-1332384		Cayman Islands
Barings NA Private Loan Fund*	38-4010344		Delaware
Barings RE Credit Strategies VII LP	98-1332384		Delaware
Baring International Small Cap Equity Fund	26-4142796		Delaware
Barings CLO Investment Partners LP*	81-0841854		Delaware
Barings Real Estate European Value Add I SCSp*	None		United Kingdom
Benton Street Partners I, L.P.*	98-0536233		Cayman Islands
Benton Street Partners II, L.P.*	98-0536199		Cayman Islands
Braemar Energy Ventures I, L.P. *	None		Delaware
Cambridge Hotel, LLC	06-1614196		Delaware

\*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>
Cheyenne Mountain Resort LLC	04-1590850		Delaware
Barings European Core Property Fund SCSp	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
Cornerstone High Yield Venture LP	36-4770946		Delaware
Barings/LAZ Parking Fund LP	46-5437441		Delaware
Barings Core Property Fund LP	20-5578089		Delaware
Cornerstone Real Estate Fund VIII LP	27-0547156		Delaware
Cornerstone Real Estate Fund X LP	46-5432619		Delaware
Duchess VI CLO B.V.	None		United Kingdom
Duchess VII CLO B.V.	None		United Kingdom
E-Wise Land Venture LLC	20-3887968		Delaware
Gateway Mezzanine Partners I, L.P.*	80-0691253		Delaware
Gateway Mezzanine Partners II LP*	90-0991195		Delaware
Great Lakes III, L.P.	37-1708623		Delaware
Kazwell Realty Partners LLC	20-3887968		Delaware
Marco Hotel LLC	46-4255307		Delaware
MM Debt Participations LLC*	81-3000420		Delaware
MML O'Hare Hotel LLC	26-3799762		Delaware
Oakley Grove Development LLC	20-3887968		Delaware
Old Pasco Properties LLC	20-3887968		Delaware
Reston Arboretum LLC	75-2901061		Delaware
Riva Portland LLC	30-0713071		Delaware
Rockall CLO B.V.	None		United Kingdom
Rockville Town Center LLC	54-2055778		Virginia
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
<b>Baring Affiliates &amp; Funds:</b>			
Barings Emerging Markets Debt Blended Total Return Fund	None		Ireland

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

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

### PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Barings Emerging Markets Debt Short Duration Fund	None		Ireland
Barings Emerging Markets Sovereign Debt Fund	None		Ireland
Babson Capital Floating Rate Income Fund, L.P.	27-3330830		Delaware
Barings Global Investment Grade Corporate Plus Fund	None		Ireland
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands
Barings Emerging Markets Debt Blended Total Return Fund	47-3758432		Massachusetts
Barings Emerging Markets Local Currency Debt Fund	47-3774453		Massachusetts
Barings Global High Yield Fund	47-3790192		Massachusetts
Baring Greater China Equity Fund	None		Hong Kong
Barings Total Return Bond Fund	47-3734770		Massachusetts
Barings U.S. High Yield Fund	47-3801860		Massachusetts
Gateway Mezzanine Partners I Trust	None		Australia
Great Lakes II LLC*	71-1018134		Delaware
Great Lakes LLC*	56-2505390		Delaware
Intermodal Holding II LLC	46-2344300		Delaware
Somerset Special Opportunities Master Fund LP	None		Cayman Islands
Wood Creek Venture Fund LLC	04-1590850		Delaware
<b>Barings Real Estate 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
Budapester Strasse LLC	81-4382111		Delaware
CHC/RFP VI Core LLC	04-1590850		Delaware
Cornerstone California Mortgage Fund I LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC	95-4207717		California
Cornerstone Fort Pierce Development LLC*	56-2630592		Delaware
Cornerstone Permanent Mortgage Fund	45-2632610		Massachusetts
Cornerstone Permanent Mortgage Fund II	61-1750537		Massachusetts
Cornerstone Permanent Mortgage Fund III	35-2531693		Massachusetts
Cornerstone Permanent Mortgage Fund IV	61-1793735		Massachusetts
CREA 330 Third LLC*	46-5001122		Delaware
CREA FMF Nashville LLC	46-4367364		Delaware
CREA/LYON West Gateway, LLC*	26-2399532		Delaware
CREA Madison Member LLC	81-0890084		Delaware
CREA/PPC Venture LLC*	20-0348173		Delaware
Fallon Cornerstone One MPD LLC*	26-1611591		Delaware
Fan Pier Development LLC*	20-3347091		Delaware

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



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

### PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
Farrington London Holdings LLC*	46-3880526		Delaware
Infinity SCD Ltd.	None		United Kingdom
Johnston Groves LLC	20-4819358		Delaware
Landmark Manchester Holdings LLC	81-5360103		Delaware
MM Chatham Office LLC*	81-2871333		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
Three PW Office Holding LLC	81-5273574		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

\*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 2060 Fund	47-5326235		Massachusetts
MassMutual RetireSMART Conservative Fund	45-1618155		Massachusetts
MassMutual RetireSMART Growth Fund	45-1618222		Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262		Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046		Massachusetts
<b>Oppenheimer Funds:</b>			
Oppenheimer Developing Markets Fund	93-6305075		Delaware
Oppenheimer Developing Markets Equity UCITS	None		Ireland
Oppenheimer Emerging Markets Innovators UCITS	None		Ireland
Oppenheimer ESG Revenue ETF	81-3492794		Delaware
Oppenheimer Global ESG Revenue ETF	81-3480754		Delaware
Oppenheimer Global Equity UCITS	None		Ireland
Oppenheimer Global Multi-Asset Growth Fund	47-3676235		Delaware
Oppenheimer Global Multi-Asset Income Fund	47-1714929		Delaware
Oppenheimer Global Value Equity UCITS	None		Ireland
Oppenhemier International Growth & Income Fund	81-3136071		Delaware
Oppenheimer Macquarie Global Infrastructure Fund	81-1080638		Delaware

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0435	Massachusetts Mut Life Ins Co	65935	04-1590850	3848388	0000225602		Massachusetts Mutual Life Insurance Company (MLIC)	MA	RE	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.0435	CM Life Ins Co	93432	06-1041383				C.M. Life Insurance Company	CT	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.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	MLIC		
.0000			06-1041383				CML Mezzanine Investor, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MLIC		
.0000			06-1041383				CML Mezzanine Investor L, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MLIC		
.0000			06-1041383				CML Mezzanine Investor III, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MLIC		
.0000							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MLIC		
.0000			04-1590850				MML Mezzanine Investor L, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.0000							MML Special Situations Investor LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	C.M. Life Insurance Company	Ownership	5.000	MLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Wood Creek Capital Management LLC	Management		MLIC		
.0000							Lyme Adirondack Forest Company, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MLIC		
.0000			20-5305426				Lyme Adirondack Timber Sales, Inc.	NY	DS	Timberland Forest Holding LLC	Ownership	100.000	MLIC		
.0000							Lyme Adirondack Timberlands I, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MLIC		
.0000							Lyme Adirondack Timberlands II, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MLIC		
.0000			04-1590850				Berkshire Way LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.0000			26-4441097				WP-SC, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	81.400	MLIC		
.0000			26-4441097				WP-SC, LLC	DE	DS	C.M. Life Insurance Company	Ownership	18.600	MLIC		
.0000			04-1590850				MSP-SC, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.0000			27-1435692				Country Club Office Plaza LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	88.100	MLIC		
.0000			27-1435692				Country Club Office Plaza LLC	DE	DS	C.M. Life Insurance Company	Ownership	11.900	MLIC		
.0000			56-2574604				Invicta Advisors LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MLIC		
.0000			27-0105644				Jefferies Finance LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	50.000	MLIC		
.0000							Apex Credit Partners LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Fund V 2017 LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Fund III LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Asset Management LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Co-Issuer Corporation	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Europe GP, S.a.r.l.	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							Jefferies Finance Europe, SCSp	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Business Credit Fund I LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN High Yield Investments LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN LC Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN Revolver CLO Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN CLO 2007 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN CLO 2012 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN CLO 2013 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN CLO 2014 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	70.000	MLIC		
.0000							JFIN CLO 2014 Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership	30.000	MLIC		
.0000							JFIN CLO 2014-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		
.0000							JFIN MM CLO 2014 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MLIC		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000							JFIN CLO 2015 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	44.000	MMLIC		
.0000							JFIN CLO 2015 Ltd.	.CYM	NIA	Apex Credit Partners LLC	Ownership	56.000	MMLIC		
.0000							JFIN CLO 2015-II Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	33.000	MMLIC		
.0000							JFIN CLO 2015-II Ltd.	.CYM	NIA	Apex Credit Partners LLC	Ownership	53.000	MMLIC		
.0000							JFIN Revolver CLO Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2014 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2015 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2015-II Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2016 Ltd.	.CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2017 Ltd.	.CYM	NIA	Jefferies Finance LLC	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	Y	
.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		
.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			04-1590850		0000067160		MML Private Equity Fund Investor LLC	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Private Equity Intercontinental LLC	.DE	NIA	MML Private Equity Fund Investor LLC	Ownership	100.000	MMLIC		
.0000			45-2738137				Pioneers Gate LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			45-4376777				MSC Holding Company, LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			04-3341767				MassMutual Holding MSC, Inc.	.MA	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-2854319	2392316			MassMutual Holding LLC	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			06-1597528				MassMutual Assignment Company	.NC	.DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			37-1732913				Fern Street LLC	.DE	.DS	MassMutual Holding LLC	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			04-1590850		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 Rothesay Holdco US LLC	.DE	.DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			47-1466022				Society of Grownpups, LLC	.MA	.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		MMLISI Financial Alliances, LLC	.DE	.DS	MML Investors Services, 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		Barings LLC	.DE	.DS	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			80-0875475				Barings Finance LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BCF Europe Funding Limited	IRL	DS	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000							BCF Senior Funding I LLC	DE	DS	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000							BCF Senior Funding I Designated Activity Company	IRL	DS	Barings Finance LLC	Ownership	100.000	MMLIC		
.0000			04-3238351		0000930012		Barings Securities LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0437588				Barings Guernsey Limited	GGY	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0432153				Barings (UK) Limited	GBR	DS	Barings Guernsey Limited	Ownership	100.000	MMLIC		
.0000							Barings GPC GP S.a. r.l	LUX	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine GP III Limited	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Holding Partnership GP Limited	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund Limited	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund II Limited	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000			98-1012393				Barings Global Advisors Limited	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							BCGSS 2 GP LLP	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Babson European Direct Lending 1 GP LLP	GBR	DS	Barings (U.K.) Limited	Ownership	100.000	MMLIC		
.0000							Barings Advisers (Japan) KK	JPN	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital Holdings LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital LLC	WI	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital Corporation	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-3238351	3456895	0001011148		Barings Real Estate Advisers Inc.	CA	DS	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000							Barings Real Estate Advisers Japan KK	JPN	DS	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000							Barings Real Estate UK Holdings Limited	DE	DS	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000							BREA E AIFM LLP	GBR	DS	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
.0000			98-0654401				Barings Real Estate Advisers (Continental Europe) Limited	GBR	DS	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0654388				Barings Real Estate Advisers Europe LLP	GBR	DS	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0654412				Barings Real Estate Advisers Europe Finance LLP	GBR	DS	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-1194368				Barings Real Estate Advisers GmbH	DEU	DS	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Baring Holding LLC	DE	DS	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
.0000			98-0241935	2363071	0000932463		Baring North America LLC	IA	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		
.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	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		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
.0000							Baring Asset Management Switzerland Sarl	.CHE	.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							Barings Australia Holding Company Pty Ltd	.AUS	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0457456				Barings Australia Pty Ltd	.AUS	.DS	Baring Australia Holding Company Pty Ltd.	Ownership	100.000	MMLIC		
.0000							Barings Investment Advisors (Hong Kong) Limited	.HKG	.DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			47-2642354				Alchemy Copyrights, LLC.	.DE	.NIA	MassMutual Holding LLC	Ownership/Influence	15.100	MMLIC		
.0000			47-2642354				Alchemy Copyrights, LLC.	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.100	MMLIC		
.0000			47-2642354				Alchemy Copyrights, LLC.	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			81-2244465				Chassis Acquisition Holding LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	30.000	MMLIC		
.0000			81-2244465				Chassis Acquisition Holding LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	40.000	MMLIC		
.0000			81-4258759				CRA Aircraft Holding LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			47-3055009				Milestone Acquisition Holding, LLC.	.DE	.NIA	MassMutual Holding LLC	Ownership/Influence	18.300	MMLIC		
.0000			47-3055009				Milestone Acquisition Holding, LLC.	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			47-3055009				Milestone Acquisition Holding, LLC.	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			46-5460309				Red Lake Ventures, LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	15.800	MMLIC		
.0000			46-5460309				Red Lake Ventures, LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	66.300	MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			46-3123110				Sweet Tree Holdings 1, LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	16.100	MMLIC		
.0000			46-3123110				Sweet Tree Holdings 1, LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000							Tamiami Citrus, LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	15.700	MMLIC		
.0000							Teaktree Acquisition, LLC	.DE	.NIA	MassMutual Holding LLC	Ownership/Influence	14.700	MMLIC		
.0000							Teaktree Acquisition, LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000							U.S. Buyer Broadcasting, LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	12.700	MMLIC		
.0000							U.S. Buyer Broadcasting, LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			46-1500495				U.S. WIG Holdings, LP	.DE	.NIA	MassMutual Holding LLC	Ownership/Influence	11.700	MMLIC		
.0000			46-1500495				U.S. WIG Holdings, LP	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000			20-2970495				US Pharmaceutical Holdings II, LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	32.600	MMLIC		
.0000			20-2970495				US Pharmaceutical Holdings II, LLC	.DE	.NIA	Barings LLC	Influence		MMLIC		
.0000							Solar Acquisition Holding, LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	39.200	MMLIC		
.0000							Solar Acquisition Holding, LLC	.DE	.NIA	Barings LLC	Management		MMLIC		
.0000							VGS Acquisition Holding, LLC	.DE	.NIA	MassMutual Holding LLC	Ownership/Influence	42.600	MMLIC		
.0000							VGS Acquisition Holding, LLC	.DE	.NIA	Barings LLC	Management		MMLIC		



STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000							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			98-0610331				Protective Capital (International) Limited	.HKG	.DS	MassMutual Asia Limited	Ownership	100.000	MMLIC		
.0000			98-1033127				MassMutual Internacional (Chile) SpA	.CHL	.DS	MassMutual International LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Life Insurance Company	.JPN	.DS	MassMutual International LLC	Ownership	100.000	MMLIC		
.0000			04-2443240				MML Management Corporation	.MA	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			04-3548444				MassMutual International Holding MSC, Inc.	.MA	.DS	MML Management Corporation	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			20-8730751				Cornerstone Global REIT Corporation	.DE	.DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				100 w. 3rd Street LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				300 South Tryon Hotel LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				300 South Tryon LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				54 West Capital LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			16-1720387				Alexandria Towers Investors LLC	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund I LP	.GBR	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	38.900	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	Barings (U.K.) Limited	Management		MMLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	.GBR	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	73.300	MMLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	.GBR	.NIA	Barings (U.K.) Limited	Management		MMLIC		
.0000							Almack Mezzanine Fund III LP	.GBR	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	34.400	MMLIC		
.0000							Almack Mezzanine Fund III LP	.GBR	.NIA	C.M. Life Insurance Company	Ownership	3.800	MMLIC		
.0000							Almack Mezzanine Fund III LP	.GBR	.NIA	Barings (U.K.) Limited	Management		MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	.IRL	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.700	MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	.IRL	.NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Local Debt Fund	.IRL	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	47.300	MMLIC		
.0000							Barings Emerging Markets Local Debt Fund	.IRL	.NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Special Situations Credit Fund 1	.IRL	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.700	MMLIC		
.0000							Barings Global Special Situations Credit Fund 1	.IRL	.NIA	Barings LLC	Management		MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	.NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	23.900	MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	.NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC		



STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	.DE	.NIA	Barings LLC	Management		MMLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	.DE	.NIA	Company	Ownership/Influence	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	Barings LLC	Management		MMLIC		
.0000							Barings US High Yield Bond Fund	.JRL	.NIA	Company	Ownership/Influence	42.600	MMLIC		
.0000							Barings US High Yield Bond Fund	.JRL	.NIA	Barings LLC	Management		MMLIC		
.0000							Babson CLO Ltd. 2007-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2012-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2012-II	.CYM	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2013-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		4
.0000			98-1128827				Babson CLO Ltd. 2013-II	.CYM	.NIA	Barings LLC	Influence		MMLIC		5
.0000							Babson CLO Ltd. 2014-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		2
.0000							Babson CLO Ltd. 2014-II	.CYM	.NIA	Barings LLC	Influence		MMLIC		6
.0000							Babson CLO Ltd. 2014-III	.CYM	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2015-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		7
.0000							Babson CLO Ltd. 2015-II	.CYM	.NIA	Barings LLC	Influence		MMLIC		8
.0000							Babson CLO Ltd. 2016-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2016-I	.CYM	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2014-I BV	.NLD	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2014-II BV	.NLD	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2015-I BV	.NLD	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2016-I BV	.NLD	.NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Global Credit Fund (Lux) SCSp, SIACV-SIF	.LUX	.NIA	Company	Ownership/Influence	15.200	MMLIC		
.0000							Babson Global Credit Fund (Lux) SCSp, SIACV-SIF	.LUX	.NIA	Barings LLC	Management		MMLIC		
.0000			81-0841854				Barings CLO Investment Partners LP	.DE	.NIA	Company	Ownership/Influence	99.300	MMLIC		
.0000			81-0841854				Barings CLO Investment Partners LP	.DE	.NIA	Barings LLC	Management		MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	.GBR	.NIA	Company	Ownership/Influence	90.000	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	.GBR	.NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	.GBR	.NIA	Barings LLC	Management		MMLIC		
.0000			11-3789446				Baring Focused EAFE Equity Fund	.DE	.NIA	Company	Ownership/Influence	43.400	MMLIC		
.0000			11-3789446				Baring Focused EAFE Equity Fund	.DE	.NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			30-0607379		0001497049		Baring Global Dynamic Asset Allocation Fund	.DE	.NIA	Company	Ownership/Influence	18.700	MMLIC		
.0000			30-0607379		0001497049		Baring Global Dynamic Asset Allocation Fund	.DE	.NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			98-1332384				Barings Global Energy Infrastructure Fund I LP	.CYM	.NIA	Company	Ownership/Influence	99.200	MMLIC		
.0000			98-1332384				Barings Global Energy Infrastructure Fund I LP	.CYM	.NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			38-4010344				Barings North American Private Loan Fund LP	.DE	.NIA	Company	Ownership/Influence	82.000	MMLIC		
.0000			38-4010344				Barings North American Private Loan Fund LP	.DE	.NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			98-1332384				Barings RE Credit Strategies VII LP	.DE	.NIA	Company	Ownership/Influence	41.100	MMLIC		
.0000			98-1332384				Barings RE Credit Strategies VII LP	.DE	.NIA	Barings Asset Management Limited	Management		MMLIC		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
.0000			26-4142796				Baring International Small Cap Equity Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	64.400	MMLIC		
.0000			26-4142796				Baring International Small Cap Equity Fund	DE	NIA	Company	Management		MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership/Influence	99.100	MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	Barings LLC	Management		MMLIC		
.0000			98-0536233				Benton Street Partners I, L.P.	CYM	NIA	C.M. Life Insurance Company	Ownership	0.100	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/Influence	28.600	MMLIC		3
.0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership	10.400	MMLIC		
.0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	Barings LLC	Management		MMLIC		
.0000							Braemar Energy Ventures I, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	92.500	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			06-1614196				Cambridge Hotel, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Cheyenne Mountain Resort LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
.0000							Barings European Core Property Fund SCSCp	LUX	NIA	MassMutual Holding LLC	Ownership/Influence	81.700	MMLIC		
.0000							Barings European Core Property Fund SCSCp	LUX	NIA	C.M. Life Insurance Company	Ownership	5.200	MMLIC		
.0000							Barings European Core Property Fund SCSCp	LUX	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			27-1701622		0001481752		Cornerstone Core Mortgage Venture I LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	50.000	MMLIC		
.0000			27-1701622		0001481752		Cornerstone Core Mortgage Venture I LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			45-3751572		0001534877		Cornerstone Enhanced Mortgage Fund I LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	15.600	MMLIC		
.0000			45-3751572		0001534877		Cornerstone Enhanced Mortgage Fund I LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	92.300	MMLIC		
.0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	C.M. Life Insurance Company	Ownership	7.600	MMLIC		
.0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			36-4770946		0001590049		Cornerstone High Yield Venture LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	50.000	MMLIC		
.0000			36-4770946		0001590049		Cornerstone High Yield Venture LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	10.300	MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	15.100	MMLIC		
.0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	25.400	MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	2.800	MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000				3981641			Duchess VI CLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000				4007502			Duchess VII CLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000			20-3887968				E-Wise Land Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	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	Barings LLC	Management		MMLIC		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	34.900	MMLIC		
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership	5.200	MMLIC		
.0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Barings LLC	Management		MMLIC		
.0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	35.700	MMLIC		
.0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			20-3887968				Kazwell Realty Partners LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-4255307				Marco Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-3000420				MM Debt Participations LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
.0000			81-3000420				MM Debt Participations LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000			26-3799762				MML O'Hare Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				Oakley Grove Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				Old Pasco Properties LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			75-2901061				Reston Arboretum LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			30-0713071				Riva Portland LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Rockall CLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000			54-2055778				Rockville Town Center LLC	VA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			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/Influence	46.600	MMLIC		
.0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	2.300	MMLIC		
.0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			04-1590850				South Myrtle Monrovia MM LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3887968				South Pasco Properties LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	28.100	MMLIC		
.0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	4.500	MMLIC		
.0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	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	Barings LLC	Management		MMLIC		
.0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	6.000	MMLIC		
.0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	17.000	MMLIC		
.0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	96.400	MMLIC		
.0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	DE	NIA	Barings LLC	Management		MMLIC		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domi-ciliary Location	Relation-ship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Re-quired? (Y/N)	*
.0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	0.000	MMLIC		
.0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	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	Barings LLC	Management		MMLIC		
.0000			04-1590850				West 46th Street Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Barings Emerging Markets Debt Blended Total Return Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Debt Short Duration Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Sovereign Debt Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000			27-3330830		0001521404		Babson Capital Floating Rate Income Fund, L.P.	DE	NIA	MassMutual Holding LLC	Ownership	0.000	MMLIC		
.0000							Babson Capital Loan Strategies Master Fund LP	CYM	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Investment Grade Corporate Plus Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000			47-3758432				Barings Emerging Markets Debt Blended Total Return Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Local Currency Debt Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			47-374453				Barings Global High Yield Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			47-3790192				Barings Greater China Equity Fund	HKG	NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			47-3734770				Barings Total Return Bond Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			47-3801860				Barings U.S. High Yield Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000							Gateway Mezzanine Partners I Trust	AUS	NIA	Barings LLC	Management		MMLIC		
.0000			71-1018134				Great Lakes II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	11.200	MMLIC		
.0000			71-1018134				Great Lakes II LLC	DE	NIA	C.M. Life Insurance Company	Ownership	1.000	MMLIC		
.0000			56-2505390				Great Lakes LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.400	MMLIC		
.0000			56-2505390				Great Lakes LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.500	MMLIC		
.0000			46-2344300				Intermodal Holdings II LLC	DE	NIA	Barings LLC	Influence		MMLIC		
.0000							Somerset Special Opportunities Master Fund LP	CYM	NIA	Barings LLC	Management		MMLIC		
.0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	40.000	MMLIC		
.0000			20-2548283				12-18 West 55th Street Predevelopment, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	89.200	MMLIC		
.0000			20-2548283				12-18 West 55th Street Predevelopment, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.800	MMLIC		
.0000			36-4823011				50 Liberty LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	46.100	MMLIC		
.0000			36-4823011				50 Liberty LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.600	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	32.300	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.200	MMLIC		
.0000			81-4382111				Budapester Strasse LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				CHC/RFP VI Core LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			95-4207717				Cornerstone California Mortgage Fund I LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund II LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	84.400	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.600	MMLIC		
.0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			35-2531693				Cornerstone Permanent Mortgage Fund III	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			61-1793735				Cornerstone Permanent Mortgage Fund IV	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-5001122				CREA 330 Third LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.900	MMLIC		
.0000			46-5001122				CREA 330 Third LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.100	MMLIC		
.0000			46-4367364				CREA FMF Nashville LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			26-2399532				CREA/LYON West Gateway, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	54.000	MMLIC		
.0000			26-2399532				CREA/LYON West Gateway, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC		
.0000			81-0890084				CREA Madison Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-0348173				CREA/PPC Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	93.400	MMLIC		
.0000			20-0348173				CREA/PPC Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.600	MMLIC		
.0000			26-1611591	3956836			Fallon Cornerstone One MPD LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	67.100	MMLIC		
.0000			26-1611591	3956836			Fallon Cornerstone One MPD LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.600	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	58.500	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.800	MMLIC		
.0000			46-3880526				Farrington London Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	94.500	MMLIC		
.0000			46-3880526				Farrington London Holdings LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.500	MMLIC		
.0000							Infinity SCD Ltd	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.200	MMLIC		
.0000			20-4819358				Johnston Groves LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	57.200	MMLIC		
.0000			81-5360103				Landmark Manchester Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-2871333				MM Chatham Office LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	83.400	MMLIC		
.0000			81-2871333				MM Chatham Office LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	16.600	MMLIC		
.0000							Salomon Brothers Commercial Mortgage Trust 2001-MM	DE	NIA	Massachusetts Mutual Life Insurance Company	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		

13.10

STATEMENT AS OF MARCH 31, 2017 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	16
Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			81-5273574				Three PW Office Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	59.200	MMLIC		
.0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	C.M. Life Insurance Company	Ownership	5.900	MMLIC		
.0000			45-4606547				UK LIW Manager LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	1.000	MMLIC		
.0000			45-4606547				UK LIW Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.000	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	92.000	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC		
.0000			20-2970495				Waterford Development Associates	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			47-1993493				Waterloo London Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			46-3122029				WeHo Domain LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	77.400	MMLIC		
.0000			46-3122029				WeHo Domain LLC	DE	NIA	C.M. Life Insurance Company	Ownership	12.600	MMLIC		
.0000			81-1552222				Willowood Lakeside Master LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	50.000	MMLIC		
.0000			20-5481477				Ygnatio Valley Funding	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			45-3168892			00	MassMutual Barings Dynamic Allocation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			51-0529328		0000927972	00	MassMutual Premier Main Street Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			26-3229251		0000927972	00	MassMutual Premier Strategic Emerging Markets Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	12.500	MMLIC		
.0000			04-3277550		0000927972	00	MassMutual Premier Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	96.800	MMLIC		
.0000			14-1980900		0000916053	00	MassMutual Select Diversified International Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	29.700	MMLIC		
.0000			01-0821120		0000916053	00	MassMutual Select Diversified Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	12.000	MMLIC		
.0000			04-3512593		0000916053	00	MassMutual Select Fundamental Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			04-3513019		0000916053	00	MassMutual Select Large Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.200	MMLIC		
.0000			42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	74.600	MMLIC		
.0000			02-0769954		0000916053	00	MassMutual Select Small Capital Value Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	15.700	MMLIC		
.0000			04-3584140		0000916053	00	MassMutual Select Small Company Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.600	MMLIC		
.0000			46-4257056		0000067160		MML Series International Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	8.400	MMLIC		
.0000			47-3517233		0001317146		MML Series II Asset Momentum Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.500	MMLIC		
.0000			47-3529636		0001317146		MML Series II Dynamic Bond Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	3.200	MMLIC		
.0000			47-3544629		0001317146		MML Series II Equity Rotation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.100	MMLIC		

13.11

STATEMENT AS OF MARCH 31, 2017 OF THE Massachusetts Mutual Life Insurance Company

**SCHEDULE Y**

**PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM**

1 Group Code	2 Group Name	3 NAIC Company Code	4 ID Number	5 Federal RSSD	6 CIK	7 Name of Securities Exchange if Publicly Traded (U.S. or International)	8 Names of Parent, Subsidiaries Or Affiliates	9 Domi-ciliary Location	10 Relation-ship to Reporting Entity	11 Directly Controlled by (Name of Entity/Person)	12 Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	13 If Control is Ownership Provide Percentage	14 Ultimate Controlling Entity(ies)/Person(s)	15 Is an SCA Filing Re-quired? (Y/N)	16 *
.0000			47-3559064		0001317146		MML Series II Special Situations Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.500	MMLIC		
.0000			46-3289207		0000916053		MassMutual RetireSMART 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	25.600	MMLIC		
.0000			47-5326235		0000916053		MassMutual RetireSMART 2060 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	96.700	MMLIC		
.0000			45-1618155		0000916053		MassMutual RetireSMART Conservative Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			45-1618222		0000916053		MassMutual RetireSMART Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	5.700	MMLIC		
.0000			45-1618262		0000916053		MassMutual RetireSMART Moderate Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			45-1618046		0000916053		MassMutual RetireSMART Moderate Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			93-6305075				Oppenheimer Developing Markets Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.900	MMLIC		
.0000							Oppenheimer Developing Markets Equity UCITS	IRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership	31.600	MMLIC		
.0000							Oppenheimer Developing Markets Equity UCITS	IRL	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
.0000							Oppenheimer Emerging Markets Innovators UCITS	IRL	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
.0000			81-3492794				Oppenheimer ESG Revenue ETF	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
.0000							Oppenheimer Global Equity UCITS	IRL	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
.0000			81-3480754				Oppenheimer Global ESG Revenue ETF	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							Oppenheimer Global Value Equity UCITS	IRL	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
.0000			81-3136071				Oppenheimer International Growth & Income Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
.0000			81-1080638				Oppenheimer Macquarie Global Infrastructure Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC		

Asterisk	Explanation
1	Massachusetts Mutual Life Insurance Company owns .98% of the affiliated debt of Jefferies Finance LLC
2	Debt investors own 3.6% and includes only Great Lakes III, L.P.
3	Partnership investors own 99% and include Babson Capital Loan Strategies Fund, L.P.
4	Debt investors own 8.7% and includes only Babson Capital Loan Strategies Fund, L.P.
5	Debt investors own 4.3% and includes only Great Lakes III, L.P.
6	Debt investors own 5.8% and includes only Great Lakes III, L.P.
7	Debt investors own 2.0% and includes only Great Lakes III, L.P.
8	Debt investors own 4.3% and includes only Great Lakes III, L.P.

13.12

# 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.

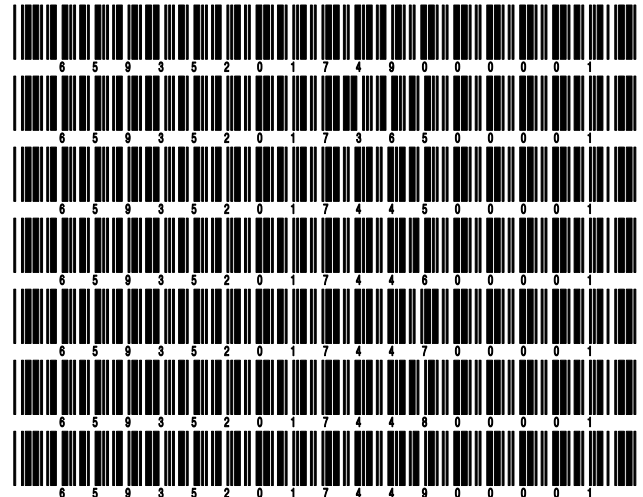
	Response
1. Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement? .....	NO
2. Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement? .....	NO
3. Will the Reasonableness of Assumptions Certification 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. This line of business is not written by the company.
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]





STATEMENT AS OF MARCH 31, 2017 OF THE Massachusetts Mutual Life Insurance Company

**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 & other miscellaneous assets .....	106,583,560	80,471,221	26,112,339	45,213,945
2505. Pension plan asset .....	596,053,685	596,053,685		
2506. Cash advances to agents .....	249,108,050	249,108,050		
2507. Intangible assets .....	122,524,437	122,524,437		
2508. Disallowed interest maintenance reserve .....	70,032,985	70,032,985		
2509. Commissions and expenses on long-term lease .....	53,952,849	53,952,849		
2510. Bills receivable .....	388,183	388,183		
2597. Summary of remaining write-ins for Line 25 from overflow page	1,198,643,749	1,172,531,410	26,112,339	45,213,945

Additional Write-ins for Liabilities Line 25

	1 Current Statement Date	2 December 31 Prior Year
2504. Funds awaiting escheat and other miscellaneous .....	81,606,786	60,133,964
2505. Deferred income .....	56,909,390	19,920,155
2597. Summary of remaining write-ins for Line 25 from overflow page	138,516,176	80,054,119

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. Change in liability for employee/agent benefit plans .....	10,569,446	(204,720)	18,694,135
2705. Miscellaneous charges to operations .....	9,906,747	1,781,288	10,529,507
2797. Summary of remaining write-ins for Line 27 from overflow page	20,476,193	1,576,568	29,223,642

STATEMENT AS OF MARCH 31, 2017 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 .....	976,679,957	928,176,765
2. Cost of acquired:		
2.1 Actual cost at time of acquisition .....	287,633	5,118,335
2.2 Additional investment made after acquisition .....	66,569,100	293,276,410
3. Current year change in encumbrances .....	(26,161,264)	(97,486,309)
4. Total gain (loss) on disposals .....	28,034,877	14,852,798
5. Deduct amounts received on disposals .....	108,305,211	59,477,126
6. Total foreign exchange change in book/adjusted carrying value .....		
7. Deduct current year's other than temporary impairment recognized .....		1,118,221
8. Deduct current year's depreciation .....	24,567,786	106,662,695
9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) .....	912,537,306	976,679,957
10. Deduct total nonadmitted amounts .....		
11. Statement value at end of current period (Line 9 minus Line 10) .....	912,537,306	976,679,957

**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 .....	20,963,341,565	22,007,729,394
2. Cost of acquired:		
2.1 Actual cost at time of acquisition .....	559,852,832	3,204,413,320
2.2 Additional investment made after acquisition .....	29,264,077	300,154,202
3. Capitalized deferred interest and other .....	7,316,683	42,853,290
4. Accrual of discount .....	505,856	2,678,459
5. Unrealized valuation increase (decrease) .....		
6. Total gain (loss) on disposals .....	(7,982,485)	(7,048,196)
7. Deduct amounts received on disposals .....	466,882,890	4,422,106,220
8. Deduct amortization of premium and mortgage interest points and commitment fees .....	1,312,830	(652,780)
9. Total foreign exchange change in book value/recorded investment excluding accrued interest .....	27,365,860	(159,297,451)
10. Deduct current year's other than temporary impairment recognized .....		6,688,012
11. Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) .....	21,111,468,668	20,963,341,565
12. Total valuation allowance .....	(2,250,000)	(2,250,000)
13. Subtotal (Line 11 plus Line 12) .....	21,109,218,668	20,961,091,565
14. Deduct total nonadmitted amounts .....		
15. Statement value at end of current period (Line 13 minus Line 14) .....	21,109,218,668	20,961,091,565

**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 .....	7,233,113,042	7,535,417,690
2. Cost of acquired:		
2.1 Actual cost at time of acquisition .....	79,461,088	551,830,195
2.2 Additional investment made after acquisition .....	300,129,251	1,114,188,548
3. Capitalized deferred interest and other .....		
4. Accrual of discount .....		
5. Unrealized valuation increase (decrease) .....	357,707,824	449,015,490
6. Total gain (loss) on disposals .....	(3,081,618)	2,647,530
7. Deduct amounts received on disposals .....	584,630,934	2,366,873,704
8. Deduct amortization of premium and depreciation .....	108,579	1,542,812
9. Total foreign exchange change in book/adjusted carrying value .....	29,514,551	(44,247,946)
10. Deduct current year's other than temporary impairment recognized .....	48,933	7,321,949
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) .....	7,412,055,692	7,233,113,042
12. Deduct total nonadmitted amounts .....	42,606,187	46,223,980
13. Statement value at end of current period (Line 11 minus Line 12) .....	7,369,449,505	7,186,889,062

**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 .....	99,649,127,776	89,179,507,736
2. Cost of bonds and stocks acquired .....	8,792,900,316	28,841,807,585
3. Accrual of discount .....	70,146,226	333,689,372
4. Unrealized valuation increase (decrease) .....	(203,327,155)	1,056,408,233
5. Total gain (loss) on disposals .....	(23,058,393)	(196,627,884)
6. Deduct consideration for bonds and stocks disposed of .....	6,701,081,635	18,821,905,883
7. Deduct amortization of premium .....	45,227,099	170,788,494
8. Total foreign exchange change in book/adjusted carrying value .....	154,996,294	(481,759,150)
9. Deduct current year's other than temporary impairment recognized .....	42,128,942	91,203,739
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) .....	101,652,347,388	99,649,127,776
11. Deduct total nonadmitted amounts .....		
12. Statement value at end of current period (Line 10 minus Line 11) .....	101,652,347,388	99,649,127,776

STATEMENT AS OF MARCH 31, 2017 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) .....	48,353,781,399	15,368,597,243	14,429,803,539	(759,632,859)	48,532,942,244			48,353,781,399
2. NAIC 2 (a) .....	31,810,151,289	13,919,025,140	13,793,647,581	1,341,629,616	33,277,158,464			31,810,151,289
3. NAIC 3 (a) .....	3,678,759,881	4,037,952,244	3,226,516,716	(295,636,840)	4,194,558,569			3,678,759,881
4. NAIC 4 (a) .....	2,390,149,329	1,367,893,933	1,287,010,590	(113,814,309)	2,357,218,363			2,390,149,329
5. NAIC 5 (a) .....	1,048,929,782	24,346,717	94,803,245	(39,472,555)	939,000,699			1,048,929,782
6. NAIC 6 (a) .....	360,223,856	1,122,418	44,455,377	(798,916)	316,091,981			360,223,856
7. Total Bonds	87,641,995,535	34,718,937,695	32,876,237,048	132,274,137	89,616,970,319			87,641,995,535
<b>PREFERRED STOCK</b>								
8. NAIC 1 .....	144,700,000	22,000,000			166,700,000			144,700,000
9. NAIC 2 .....	165,906,546			(10,766,401)	155,140,145			165,906,546
10. NAIC 3 .....	123,000,000			12,500,002	135,500,002			123,000,000
11. NAIC 4 .....	2,797,430		34,394	(291,970)	2,471,066			2,797,430
12. NAIC 5 .....	13,131,970			(35,369)	13,096,601			13,131,970
13. NAIC 6 .....	15,389,326			(31,411)	15,357,915			15,389,326
14. Total Preferred Stock	464,925,272	22,000,000	34,394	1,374,851	488,265,729			464,925,272
15. Total Bonds and Preferred Stock	88,106,920,807	34,740,937,695	32,876,271,442	133,648,988	90,105,236,048			88,106,920,807

(a) Book/Adjusted Carrying Value column for the end of the current reporting period includes the following amount of short-term and cash equivalent bonds by NAIC designation:

NAIC 1 \$ 138,310,190 ; NAIC 2 \$ 3,018,851,168 ; NAIC 3 \$ 523,025,192 ; NAIC 4 \$ ; NAIC 5 \$ ; NAIC 6 \$

**SCHEDULE DA - PART 1**

Short-Term Investments

	1 Book/Adjusted Carrying Value	2 Par Value	3 Actual Cost	4 Interest Collected Year-to-Date	5 Paid for Accrued Interest Year-to-Date
9199999 Totals	534,562,662	XXX	534,074,874		

**SCHEDULE DA - VERIFICATION**

Short-Term Investments

	1 Year To Date	2 Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year .....	707,992,227	167,854,960
2. Cost of short-term investments acquired .....	1,030,349,136	2,154,741,437
3. Accrual of discount .....	984,026	10,354,668
4. Unrealized valuation increase (decrease) .....		
5. Total gain (loss) on disposals .....	9,561	39,287
6. Deduct consideration received on disposals .....	1,204,772,288	1,624,998,125
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) .....	534,562,662	707,992,227
11. Deduct total nonadmitted amounts .....		
12. Statement value at end of current period (Line 10 minus Line 11)	534,562,662	707,992,227

**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)	3,749,418,124
2. Cost Paid/(Consideration Received) on additions	191,266,576
3. Unrealized Valuation increase/(decrease)	(284,084,251)
4. Total gain (loss) on termination recognized	(72,324,362)
5. Considerations received/(paid) on terminations	27,658,549
6. Amortization	(1,695,780)
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)	3,554,921,758
10. Deduct nonadmitted assets	
11. Statement value at end of current period (Line 9 minus Line 10)	3,554,921,758

**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	30,241,689
3.14 Section 1, Column 18, prior year	(30,561,317)
	60,803,006
	60,803,006
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	30,241,689
3.24 Section 1, Column 19, prior year	(30,561,317)
	60,803,006
	60,803,006
3.3 Subtotal (Line 3.1 minus Line 3.2)	
4.1 Cumulative variation margin on terminated contracts during the year	(71,426,096)
4.2 Less:	
4.21 Amount used to adjust basis of hedged item	
4.22 Amount recognized	(40,864,779)
	(40,864,779)
4.3 Subtotal (Line 4.1 minus Line 4.2)	(30,561,317)
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	30,561,317
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 MARCH 31, 2017 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	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	45,000,000	43,988,100	10/01/2012	10/01/2042	Interest Rate Swaps	(1,011,495)		85815X-AQ-6	STEELE CREEK CLO LTD-STCR 2014-1A A1R	1	45,000,000	44,999,595
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	2		11,156,606	12,008,750	10/01/2012	10/01/2042	Interest Rate Swaps			320808-AD-0	FIRST MARYLAND CAP I-LIMITED GUARANTEE NOTE	2	11,156,606	12,008,750
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2	50,000,000	5,600,000	4,556,398	10/01/2012	10/01/2042	Interest Rate Swaps	(1,069,720)		87246M-AA-0	TICP CLO LTD-SERIES 2016-6A CLASS A	1	5,600,000	5,626,118
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2		6,403,382	6,398,203	10/01/2012	10/01/2042	Interest Rate Swaps			67818N-ZZ-5	SASOL CHEMICALS (USA) LLC	2	6,403,382	6,398,203
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2		7,505,407	7,467,129	10/01/2012	10/01/2042	Interest Rate Swaps			77277L-A7-2	ROCKALL CLO BV Variable Funding Note- USD	1	7,505,407	7,467,129
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2		4,949,861	4,960,825	10/01/2012	10/01/2042	Interest Rate Swaps			U8270Y-ZZ-4	SILVER STATE SOLAR SOUTH	2	4,949,861	4,960,825
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2		1,814,250	1,816,518	10/01/2012	10/01/2042	Interest Rate Swaps			81683U-AF-4	SEMINOLE TRIBE OF FLORIDA	2	1,814,250	1,816,518
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2		13,000,000	13,003,991	10/01/2012	10/01/2042	Interest Rate Swaps			14889K-AC-6	CATAMARAN CLO 2015-1 LTD NT CL B	1	13,000,000	13,003,991
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	2		12,920,000	12,922,778	10/01/2012	10/01/2042	Interest Rate Swaps			55818Y-AE-1	MADISON PARK FDG XVII LTD-NT CL B 144A	1	12,920,000	12,922,778
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	264,000,000	16,502,189	9,477,543	11/29/2012	11/29/2042	Interest Rate Swaps	(6,524,009)		87244D-AC-8	THL CR WIND RIV 2013-1 CLO-SR SECD NT CL A-2 144A	1	16,502,189	16,001,552
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,234,862	17,886,128	11/29/2012	11/29/2042	Interest Rate Swaps			87244D-AA-2	THL CR WIND RIV 2013-1 CLO-SR SECD NT CL A-1 144A	1	18,234,862	17,886,128
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,610,703	4,451,513	11/29/2012	11/29/2042	Interest Rate Swaps			09625Y-AG-6	BLUEMOUNTAIN CLO 2012-1 LTD SR SECD DEF NT CL C	1	4,610,703	4,451,513
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		46,440,866	45,750,789	11/29/2012	11/29/2042	Interest Rate Swaps			14955A-AA-1	CAVALRY CLO IV LTD-SR SEC NT CL A GREYWOLF CLO III LTD-SR SECD NT CL A-2 144A	1	46,440,866	45,750,789
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,216,081	15,752,756	11/29/2012	11/29/2042	Interest Rate Swaps			39808F-AC-2	CVP CASCADE CLO LTD-CVPC 2014-2A A1R	1	15,216,081	15,752,756
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		154,000,000	154,000,000	11/29/2012	11/29/2042	Interest Rate Swaps			126611-AL-6		1	154,000,000	154,000,000
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,200,000	6,200,000	11/29/2012	11/29/2042	Interest Rate Swaps			94950G-AE-7	WELLFLEET CLO LTD-WELF 2017-1A B	1	6,200,000	6,200,000
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,928,571	8,928,973	11/29/2012	11/29/2042	Interest Rate Swaps			26251B-AC-0	DRYDEN XXIV SENIOR LOAN F	1	8,928,571	8,928,973
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,750,000	5,758,050	11/29/2012	11/29/2042	Interest Rate Swaps			03764Q-AU-6	APIDOS CLO	1	5,750,000	5,758,050
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	25,000,000	26,118,001	12/27/2012	12/27/2042	Interest Rate Swaps	1,118,001		939218-AU-7	WASHINGTON MILL CLO LTD-WAMI 2014-1A A1R	1	25,000,000	25,000,000
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	4,003,852	12/27/2012	12/27/2042	Interest Rate Swaps			83609R-AE-1	SOUND POINT CLO LTD-SNDPT 2017-1A C	1	4,000,000	4,003,852
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,551,983	3,502,429	12/27/2012	12/27/2042	Interest Rate Swaps			15135A-AA-1	CENT CDO 12 LTD-SR NT SER 2006-12A CL A 144A	1	3,551,983	3,502,429
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,112,451	4,112,846	12/27/2012	12/27/2042	Interest Rate Swaps			056162-AC-4	BARSON CLO LTD-SERIES 15-1A CLASS B	1	4,112,451	4,112,846
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,400,000	17,488,375	12/27/2012	12/27/2042	Interest Rate Swaps			81789G-AA-9	SEVEN STICKS CLO LTD-SR SECD NT CL A-1 144A	1	17,400,000	17,488,375
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,879,470	6,896,621	12/27/2012	12/27/2042	Interest Rate Swaps			46617Y-AD-5	JFIN CLO2015 LTD-MEZZ SECD DEF NT CL C1	1	6,879,470	6,896,621
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,909,647	17,192,486	12/27/2012	12/27/2042	Interest Rate Swaps			24820R-AA-6	Statoil ASA-SENIOR UNSECURED NOTE	1	13,909,647	17,192,486
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,132,664	4,357,360	12/27/2012	12/27/2042	Interest Rate Swaps			00162L-AW-7	ALM XVI LTD SR SECD DEF NT CL B	1	4,132,664	4,357,360
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,124,141	12,014,553	12/27/2012	12/27/2042	Interest Rate Swaps			04965C-AC-2	ATRIUM XII LLC-NOTE SERIES 12A CLASS B 144A	1	12,124,141	12,014,553
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,500,000	10,552,700	12/27/2012	12/27/2042	Interest Rate Swaps			94949L-AA-8	WELLFLEET CLO LTD-WELF 2016-2A A1	1	10,500,000	10,552,700
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,015,600	12/27/2012	12/27/2042	Interest Rate Swaps			55953H-AL-7	MAGNETITE CLO LTD-SERIES 2015-12A CLASS BR	1	10,000,000	10,015,600
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	43,800,000	44,933,419	12/27/2012	12/27/2042	Interest Rate Swaps	1,118,001		00900A-AA-6	AIMCO-SERIES 2014-AA CLASS A	1	43,800,000	43,815,418
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,727,322	11,272,877	12/27/2012	12/27/2042	Interest Rate Swaps			14309D-AC-4	CARLYLE HIGH YIELD PARTN X-SR SEC NT CL A2D	1	11,727,322	11,272,877

S105

STATEMENT AS OF MARCH 31, 2017 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	Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	14 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		6,800,000	6,813,002	12/27/2012	12/27/2042	Interest Rate Swaps			48251B-AA-8	KKR FINANCIAL CLO LTD-KKR 16 A1 ... DRYDEN XXVI SR LN FD SR SEC NT CL	1	6,800,000	6,813,002
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		35,043,031	34,912,045	12/27/2012	12/27/2042	Interest Rate Swaps			26250U-AC-9	OCTAGON INV PARTNERS XVI LTD-SR SEC NT CL C1	1	35,043,031	34,912,045
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,900,000	4,900,260	12/27/2012	12/27/2042	Interest Rate Swaps			67590B-AE-0	MADISON PARK FDG IV LTD-NT CL A-1B	1	4,900,000	4,900,260
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	15,175,600	17,335,825	12/28/2012	12/28/2042	Interest Rate Swaps		2,115,974	55817U-AB-6	ECP CLO 2012-4 LTD-SR SEC NT CL A-2 144A	1	15,175,600	15,219,851
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,564,793	8,506,086	12/28/2012	12/28/2042	Interest Rate Swaps			26828C-AC-2	SYMPHONY CLO V LTD-SR SEC NT CL A-2 144A	1	8,564,793	8,506,086
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,138,842	9,156,460	12/28/2012	12/28/2042	Interest Rate Swaps			87155M-AC-5	MADISON PARK FUNDING LTD-SERIES	1	9,138,842	9,156,460
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	7,000,651	12/28/2012	12/28/2042	Interest Rate Swaps			55818X-BA-0	2015-16A CLASS BR	1	7,000,000	7,000,651
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,050,000	11,071,868	12/28/2012	12/28/2042	Interest Rate Swaps			88432M-AC-8	WIND RIVER CLO LTD-WINDR 2017-1A B	1	11,050,000	11,071,868
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	50,641,600	12/28/2012	12/28/2042	Interest Rate Swaps			949496-AC-7	WELLFLEET CLO 2015-1 LTD-SR SEC NT CL A-1 144A	1	50,000,000	50,641,600
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	34,714,288	36,019,737	12/28/2012	12/28/2042	Interest Rate Swaps		2,115,974	67104L-AA-5	CHA LN FDG 2013-2 LTD-SR SEC NT CL A	1	34,714,288	33,903,763
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,150,000	9,150,942	12/28/2012	12/28/2042	Interest Rate Swaps			38137D-AC-1	GOLDENTREE LOAN OPP VII LTD-SR SEC NT CL B-1	1	9,150,000	9,150,942
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		42,748,833	42,130,158	12/28/2012	12/28/2042	Interest Rate Swaps			92329X-AA-6	VENTURE XVI CLO LTD-SR SEC NOTE CLASS A-1L 144A	1	42,748,833	42,130,158
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,900,000	17,830,530	12/28/2012	12/28/2042	Interest Rate Swaps			89852T-AC-2	TRYON PARK CLO LTD-SR SEC NT CL A-2 144A	1	17,900,000	17,830,530
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	5,400,000	7,517,394	12/28/2012	12/28/2042	Interest Rate Swaps		2,115,974	38137D-AG-2	GOLDENTREE LOAN OPP VII LTD-SR SEC NT CL C-1	1	5,400,000	5,401,420
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,100,000	10,100,455	12/28/2012	12/28/2042	Interest Rate Swaps			09626Y-AC-4	BLUEMOUNTAIN CLO 2013-2 LTD-SR SEC NOTE CL B1	1	10,100,000	10,100,455
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,177,486	2,177,486	12/28/2012	12/28/2042	Interest Rate Swaps			33882W-AA-1	FLATIRON CLO 2011-1 LTD SENIOR NOTE CL A 144A	1	2,177,486	2,177,486
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,377,678	12,984,147	12/28/2012	12/28/2042	Interest Rate Swaps			29108Q-AC-6	EMERSON PARK CLO LTD-SR SEC SER 2013-1A CL B1	1	13,377,678	12,984,147
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,975,000	8,041,663	12/28/2012	12/28/2042	Interest Rate Swaps			94949L-AC-4	WELLFLEET CLO LTD-WELF 2016-2A A2	1	7,975,000	8,041,663
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,050,039	5,007,755	12/28/2012	12/28/2042	Interest Rate Swaps			50184V-AG-9	LOM XIV LTD PARTNERSHIP-DEF MEZZ NT CL C	1	5,050,039	5,007,755
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,963,092	5,000,065	12/28/2012	12/28/2042	Interest Rate Swaps			46617N-AE-7	JFIN CLO 2014-1I LTD SR SEC DEF NT CL B-1	1	4,963,092	5,000,065
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,238,196	14,242,039	12/28/2012	12/28/2042	Interest Rate Swaps			00163E-AM-4	ALM VI LTD-SR SECURED NOTE CLASS A2R	1	14,238,196	14,242,039
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,975,000	7,987,114	12/28/2012	12/28/2042	Interest Rate Swaps			50189G-AC-6	LOM LTD PARTNERSHIP-SERIES 22A CLASS A2	1	7,975,000	7,987,114
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,250,000	4,259,631	12/28/2012	12/28/2042	Interest Rate Swaps			09626U-AQ-1	BLUEMOUNTAIN CLO LTD-BLUEM 2013-1A BR	1	4,250,000	4,259,631
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,350,000	6,399,524	12/28/2012	12/28/2042	Interest Rate Swaps			26249K-AM-3	DRYDEN SENIOR LOAN FUND-SERIES 2014-36A CLASS CR	1	6,350,000	6,399,524
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,560,640	12,651,554	12/28/2012	12/28/2042	Interest Rate Swaps			78447M-AD-0	SLM STUDENT LOAN TRUST-SERIES 2013-1 CLASS B	1	12,560,640	12,651,554
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,999,864	12/28/2012	12/28/2042	Interest Rate Swaps			14310V-AN-7	CARLYLE GLOBAL MARKET ST-SERIES 2014-2A CLASS CR	1	8,000,000	7,999,864
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	13,560,000	14,617,986	12/28/2012	12/28/2042	Interest Rate Swaps		1,057,986	09627D-AQ-8	BLUEMOUNTAIN CLO LTD-BLUEM 2013-4A BR	1	13,560,000	13,560,000
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,012,481	19,755,530	12/28/2012	12/28/2042	Interest Rate Swaps			09625J-AA-2	BLUEMOUNTAIN CLO 2013-3 LTD SR SEC NT CL A	1	20,012,481	19,755,530
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,575,972	9,574,086	12/28/2012	12/28/2042	Interest Rate Swaps			568416-BD-2	MARINE PARK CLO LTD-SR SEC DEF NT CL B-R 144A	1	9,575,972	9,574,086
57629*AJU	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	7,575,405	12/28/2012	12/28/2042	Interest Rate Swaps			26245C-AE-3	DRYDEN SENIOR LOAN FUND-SERIES 2016-43A CLASS B	1	7,500,000	7,575,405
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	7,344,487	8,697,637	12/28/2012	12/28/2042	Interest Rate Swaps		1,057,986	15135D-AC-1	CENT CDO 14 LTD-SR TERM NT SER 2007-14A CL B	1	7,344,487	7,639,651

S105.1

STATEMENT AS OF MARCH 31, 2017 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	
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,000,000	12,030,456	12/28/2012	12/28/2042	Interest Rate Swaps				03765P-AC-7	APIDOS CLO XX1-SR SECURED NOTE CL A-2	1	12,000,000	12,030,456
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	11,725,000	11,725,000	11,769,895	12/28/2012	12/28/2042	Interest Rate Swaps				38137P-AE-0	GOLDENTREE LOAN OPP X LTD-SR SEC NT CL B	1	11,725,000	11,769,895
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,250,000	11,256,041	12/28/2012	12/28/2042	Interest Rate Swaps				04013Y-AQ-5	ARES XXIV CLO LTD-SR SEC NT SER 2012-2A CL B1R	1	11,250,000	11,256,041
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,195,000	11,196,343	12/28/2012	12/28/2042	Interest Rate Swaps				26250D-AS-2	DRYDEN XXIV SR LN FD-SR SEC NT CL B-R	1	11,195,000	11,196,343
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	11,823,909	12,459,297	12/28/2012	12/28/2042	Interest Rate Swaps		1,057,986		14310D-AG-2	CARLYLE GLOBAL MKT CLO 2013-2 MEZZ SEC DEF NT CL C	1	11,823,909	11,401,311
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,208,733	12,353,701	12/28/2012	12/28/2042	Interest Rate Swaps				78442G-PL-4	SLM STUDENT LOAN TRUST-SERIES 2005-4 CLASS B	1	12,208,733	12,353,701
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,920,000	8,919,902	12/28/2012	12/28/2042	Interest Rate Swaps				10302V-BC-8	BOWMAN PARK CLO LTD-BOWPK 2014-1A B1R	1	8,920,000	8,919,902
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,338,579	17,400,609	12/28/2012	12/28/2042	Interest Rate Swaps				05363X-AC-1	EVERY POINT V CLO LTD-SR SEC NT CL A	1	17,338,579	17,400,609
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	5,906,116	6,908,570	12/28/2012	12/28/2042	Interest Rate Swaps		1,057,986		27828P-AA-5	EATON VANCE CDO VIII LTD-SR SEC NT CL A	1	5,906,116	5,850,584
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,829,692	10,728,807	12/28/2012	12/28/2042	Interest Rate Swaps				62953G-AC-5	NZCG FUNDING LTD-SERIES 2015-2A CLASS A2	1	10,829,692	10,728,807
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,050,000	3,072,652	12/28/2012	12/28/2042	Interest Rate Swaps				00191Y-AP-9	ARES CLO LTD-SERIES 2015 1-A CLASS B2R	1	3,050,000	3,072,652
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,498,424	4,523,634	12/28/2012	12/28/2042	Interest Rate Swaps				50184K-AW-8	LGM LTD PARTNERSHIP-SERIES 13A CLASS CR	1	4,498,424	4,523,634
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	5,016,610	12/28/2012	12/28/2042	Interest Rate Swaps				08181L-AA-5	BENEFIT STREET PARTNERS -BSP 2016-10A A1	1	5,000,000	5,016,610
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,016,580	12/28/2012	12/28/2042	Interest Rate Swaps				43132W-AC-4	HILDENE CLO IV LTD-SR SEC NT SER 2015-4A CL A-2	1	10,000,000	10,016,580
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,750,000	8,750,324	12/28/2012	12/28/2042	Interest Rate Swaps				05618L-AH-9	BABSON CLO LTD-BABSN 2014-11A CR	1	8,750,000	8,750,324
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,900,000	3,917,733	12/28/2012	12/28/2042	Interest Rate Swaps				05875F-AC-1	BALLYROCK LTD-SERIES 16-1A CLASS B1	1	3,900,000	3,917,733
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	15,408,735	15,215,170	12/31/2012	12/31/2042	Interest Rate Swaps		209,365		09625Y-AD-3	BLUEMOUNTAIN CLO 2012-1 LTD-SR SEC NOTE CL B	1	15,408,735	15,005,805
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,895,215	1,860,218	12/31/2012	12/31/2042	Interest Rate Swaps				04014J-AA-2	ARES XXVI CLO LTD SR NT CL A	1	1,895,215	1,860,218
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,475,000	9,504,932	12/31/2012	12/31/2042	Interest Rate Swaps				26249Q-AG-3	DRYDEN 38 SR LN FD SR SEC NT CL B	1	9,475,000	9,504,932
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,705,309	8,627,777	12/31/2012	12/31/2042	Interest Rate Swaps				39808P-AC-0	GREYWOLF CLO V LTD-SR SEC NT CL A-2 144A	1	8,705,309	8,627,777
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,550,000	7,563,658	12/31/2012	12/31/2042	Interest Rate Swaps				74982L-AS-9	RACE POINT CLO LTD-SERIES 13-8A CLASS CR	1	7,550,000	7,563,658
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,625,000	8,626,535	12/31/2012	12/31/2042	Interest Rate Swaps				26829C-AC-1	ECP CLO 2015-7 LTD SR SEC NT CL A-2 144A	1	8,625,000	8,626,535
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2	50,000,000	5,852,377	5,985,116	12/31/2012	12/31/2042	Interest Rate Swaps		209,365		00248P-AE-6	A VOCE CLO LTD DEF MEZZ SEC NT CL B	1	5,852,377	5,775,751
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		4,030,142	3,900,722	12/31/2012	12/31/2042	Interest Rate Swaps				67108F-AG-1	OZLM FUNDING IV LTD-SR SEC NT CL B 144A	1	4,030,142	3,900,722
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		15,000,000	15,000,000	12/31/2012	12/31/2042	Interest Rate Swaps				87247U-AU-7	TIOP CLO LTD-TIOP 2014-3A B1R	1	15,000,000	15,000,000
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		12,800,000	12,793,600	12/31/2012	12/31/2042	Interest Rate Swaps				36319G-AP-9	GALAXY CLO LTD-GALXY 2014-18A AR	1	12,800,000	12,793,600
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		9,600,000	9,599,030	12/31/2012	12/31/2042	Interest Rate Swaps				14308L-AS-2	CARLYLE GLOBAL MARKET ST-CGMS 2014-3A A2R	1	9,600,000	9,599,030
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		1,538,371	1,500,146	12/31/2012	12/31/2042	Interest Rate Swaps				15015P-AB-1	CEDAR CREEK CLO LTD-SR SEC NT SER 2013-1A CL B	1	1,538,371	1,500,146
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		2,000,000	1,984,032	12/31/2012	12/31/2042	Interest Rate Swaps				941848-D8-9	WATERS CORPORATION	2	2,000,000	1,984,032
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	14,300,000	14,573,872	12/31/2012	12/31/2042	Interest Rate Swaps		209,365		55820J-AC-4	MADISON PARK FUNDING LTD-SERIES 2016-21A CLASS A2	1	14,300,000	14,364,507
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,817,485	13,821,294	12/31/2012	12/31/2042	Interest Rate Swaps				948214-AC-5	WEBSTER PK CLO SR SEC NT CL A-2	1	13,817,485	13,821,294

S105.2



STATEMENT AS OF MARCH 31, 2017 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*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,750,913	6,607,735	12/31/2012	12/31/2042	Interest Rate Swaps			67104L-AC-1	QHA LN FDG 2013-2 LTD-MEZZ SEC2 DEF NT CL C	1	6,750,913	6,607,735
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,350,000	4,367,100	12/31/2012	12/31/2042	Interest Rate Swaps			020053-AS-3	ALM LOAN FUNDING-SERIES 13-8A CLASS A1R	1	4,350,000	4,367,100
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,700,000	2,699,789	12/31/2012	12/31/2042	Interest Rate Swaps			87154E-AN-0	SYMPHONY CLO LTD-SERIES 14-15A CLASS CR	1	2,700,000	2,699,789
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,637,002	8,776,499	12/31/2012	12/31/2042	Interest Rate Swaps			59983H-AB-5	MILL CREEK CLO II LTD-SR SEC2 NT CL B-1 144A	1	8,637,002	8,776,499
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	12,866,254	12/31/2012	12/31/2042	Interest Rate Swaps		209,365	BCC0XF-V8-9	RESOURCE EUROPE CLO I BV-SR SEC2 REG NT CL A	1	12,866,254	10,645,958
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,400,000	7,400,000	12/31/2012	12/31/2042	Interest Rate Swaps			92916M-AC-5	VOYA CLO LTD-VOYA 2017-1A B	1	7,400,000	7,400,000
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,789,428	9,099,433	12/31/2012	12/31/2042	Interest Rate Swaps			39808F-AC-2	GREYWOLF CLO III LTD-SR SEC2 NT CL A-2 144A	1	8,789,428	9,099,433
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,500,000	4,510,152	12/31/2012	12/31/2042	Interest Rate Swaps			26244M-AC-6	DRYDEN SENIOR LOAN FUND-DRSLF 2016-45A B	1	4,500,000	4,510,152
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,150,000	7,198,062	12/31/2012	12/31/2042	Interest Rate Swaps			09628Q-AC-9	DENALI CAPITAL CLO X LTD-SR SEC2 CL B	1	7,150,000	7,198,062
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,700,000	3,700,618	12/31/2012	12/31/2042	Interest Rate Swaps			24823B-AC-4	A2L 144A BARBON CLO LTD 2016-I SEC2 DEF MEZZ CL C	1	3,700,000	3,700,618
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,025,000	8,096,551	12/31/2012	12/31/2042	Interest Rate Swaps			05618P-AJ-6	JFIN CLO 2013 LTD SR SEC2 DEF NT CL B	1	8,025,000	8,096,551
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	9,243,922	12/31/2012	12/31/2042	Interest Rate Swaps		209,365	46616K-AE-4	B	1	9,243,922	9,101,392
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,682,739	11,319,131	12/31/2012	12/31/2042	Interest Rate Swaps			03764D-AD-3	APIDOS CLO XII MEZZ DEF NT CL C	1	11,682,739	11,319,131
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,600,000	10,611,978	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	10,611,978
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,036,450	12/31/2012	12/31/2042	Interest Rate Swaps			50188Q-AE-1	LOM XIX LTD PARTNERSHIP DEF MEZZ NT CL C	1	10,000,000	10,036,450
57629*AS0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,675,000	10,677,583	12/31/2012	12/31/2042	Interest Rate Swaps			38137Q-AC-2	GOLDENTREE LOAN OPPORTUN-GOLD9 2014-9A B1R	1	10,675,000	10,677,583
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	5,075,891	12/31/2012	12/31/2042	Interest Rate Swaps		209,365	15136R-AJ-4	CENT CLO 18 LP-DEF NT SER 2013-18A CL C-1 144A	1	5,075,891	4,891,023
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,325,000	12,324,889	12/31/2012	12/31/2042	Interest Rate Swaps			38137L-AQ-2	GOLDENTREE LOAN OPPORTUN-SERIES 2014-8A CLASS B1R	1	12,325,000	12,324,889
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,900,000	5,900,000	12/31/2012	12/31/2042	Interest Rate Swaps			48251F-AB-7	KKR FINANCIAL CLO LTD-SERIES 17 CLASS B	1	5,900,000	5,900,000
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,850,000	5,850,281	12/31/2012	12/31/2042	Interest Rate Swaps			55818M-AQ-0	MADISON PARK FUNDING LTD-MDPK 2014-13A BR1	1	5,850,000	5,850,281
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,750,000	21,752,741	12/31/2012	12/31/2042	Interest Rate Swaps			39808P-AA-4	GREYWOLF CLO V LTD SR SEC2 NT CL A-1	1	21,750,000	21,752,741
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		55,000,000	28,223,655	04/09/2013	04/09/2043	Interest Rate Swaps		1,177,204	04014J-AA-2	ARES XXVI CLO LTD SR NT CL A	1	28,223,655	27,702,465
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,806,511	4,809,636	04/09/2013	04/09/2043	Interest Rate Swaps			36248M-AB-3	GT LOAN FINANCING LTD-SERIES 2013-1A CLASS B	1	4,806,511	4,809,636
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,575,633	12,478,356	04/09/2013	04/09/2043	Interest Rate Swaps			14954I-AC-0	CAVALRY CLO III LTD-SR SEC NT CL B	1	12,575,633	12,478,356
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,330,000	4,330,000	04/09/2013	04/09/2043	Interest Rate Swaps			64130H-AE-1	NEUBERGER BERMAN CLO LTD-NEUB 2017-24A C	1	4,330,000	4,330,000
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,311,555	6,200,217	04/09/2013	04/09/2043	Interest Rate Swaps			43132R-AA-9	HILDENE CLO I LTD-SR SEC2 NT SER 2013-1A CL A	1	6,311,555	6,200,217
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		60,000,000	23,686,574	04/09/2013	04/09/2043	Interest Rate Swaps		1,284,222	04941G-AC-2	ATLAS SENIOR LOAN FUND L-SERIES 2013-1A CLASS B	1	22,400,000	22,402,352
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,150,000	9,150,942	04/09/2013	04/09/2043	Interest Rate Swaps			38137D-AC-1	GOLDENTREE LOAN OPP VII LTD-SR SEC NT CL B-1	1	9,150,000	9,150,942
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,781,812	3,651,241	04/09/2013	04/09/2043	Interest Rate Swaps			09625Y-AG-6	BLUEMOUNTAIN CLO 2012-1 LTD SR SEC2 DEF NT CL C	1	3,781,812	3,651,241
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,024,930	04/09/2013	04/09/2043	Interest Rate Swaps			14310M-AS-6	CARLYLE GLOBAL MARKET ST-SERIES 2014-1A CLASS CR	1	10,000,000	10,024,930
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,750,000	12,872,719	04/09/2013	04/09/2043	Interest Rate Swaps			27830B-AQ-7	EATON VANCE CDO LTD-SERIES 2013-1A CLAS A2R	1	12,750,000	12,872,719

S105.3

STATEMENT AS OF MARCH 31, 2017 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*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,017,025	2,999,118	04/09/2013	04/09/2043	Interest Rate Swaps			131248-AE-6	CALLIDUS DEBT PARTNERS F-SERIES 6A CLASS A2	1	3,017,025	2,999,118
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	7,878,060	9,157,485	04/09/2013	04/09/2043	Interest Rate Swaps	1,345,387		50184V-AG-9	LCM XIV LTD PARTNERSHIP-DEF MEZZ NT CL C	1	7,878,060	7,812,098
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,500,000	12,502,750	04/09/2013	04/09/2043	Interest Rate Swaps			50188G-AE-3	LCM XVIII LTD PARTNERSHIP-SR NT SER 18A CL B-1	1	12,500,000	12,502,750
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,135,566	3,028,894	04/09/2013	04/09/2043	Interest Rate Swaps			67104L-AB-3	QHA LN FDG 2013-2 LTD-SR SEC'D NT CL B	1	3,135,566	3,028,894
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,948,767	8,935,956	04/09/2013	04/09/2043	Interest Rate Swaps			78442G-OA-7	SLM STUDENT LOAN TRUST-SERIES 2005-6 CLASS B	1	8,948,767	8,935,956
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,775,000	10,774,871	04/09/2013	04/09/2043	Interest Rate Swaps			74982L-AQ-3	RACE POINT CLO LTD-SERIES 13-8A CLASS BR	1	10,775,000	10,774,871
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	13,082,303	04/09/2013	04/09/2043	Interest Rate Swaps			26244Y-AC-0	DRYDEN 42 SR LN FD-SR SEC NT CL B	1	13,000,000	13,082,303
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	20,773,970	21,980,554	04/09/2013	04/09/2043	Interest Rate Swaps	1,345,387		27829K-AE-7	EATON VANCE CDO LTD-SERIES 2007-10A CLASS B2	1	20,773,970	20,635,167
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,118,111	3,062,665	04/09/2013	04/09/2043	Interest Rate Swaps			50184V-AC-8	LCM XIV LTD PARTNERSHIP-SR NT SER 14A CL A 144A	1	3,118,111	3,062,665
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,610,000	8,619,729	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	8,619,729
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,635,613	8,573,301	04/09/2013	04/09/2043	Interest Rate Swaps			26829C-AJ-6	ECP CLO 2015-7 LTD SR SEC'D DEF NT CL B-1	1	8,635,613	8,573,301
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	7,502,153	04/09/2013	04/09/2043	Interest Rate Swaps			568416-BB-6	MARINE PARK CLO LTD-SR SEC'D NT CL A-2-R 144A	1	7,500,000	7,502,153
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	7,031,010	04/09/2013	04/09/2043	Interest Rate Swaps			50188Q-AC-5	LCM XIX LTD PARTNERSHIP SR NT CL B	1	7,000,000	7,031,010
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,825,000	4,826,370	04/09/2013	04/09/2043	Interest Rate Swaps			89473L-AB-0	TREMAN PK CLO LTD SR SEC'D NT CL B-1	1	4,825,000	4,826,370
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	28,662,404	29,792,667	04/09/2013	04/09/2043	Interest Rate Swaps		931,841	67110H-AA-6	QZLM XIV LTD SR SEC'D NT CL A-1A	1	28,662,404	28,860,826
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,000,000	04/09/2013	04/09/2043	Interest Rate Swaps			08179C-AE-1	BENEFIT STREET PARTNERS -BSP 2017-11A A2A	1	15,000,000	15,000,000
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	13,100,854	04/09/2013	04/09/2043	Interest Rate Swaps			50189C-AE-1	LCM XXI LTD PARTNERSHIP-SR NT SER 21A CL B-1	1	13,000,000	13,100,854
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	38,031,372	39,013,171	04/09/2013	04/09/2043	Interest Rate Swaps		1,016,553	04941G-AA-6	ATLAS SENIOR LOAN FUND L-SERIES 2013-1A CLASS A	1	38,031,372	37,996,618
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,253,168	24,989,571	04/09/2013	04/09/2043	Interest Rate Swaps			14310G-AA-8	CARLYLE GLOBAL MKT CLO 2013-3 SR SEC NT CL A1	1	25,253,168	24,989,571
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	40,000,000	40,855,990	04/09/2013	04/09/2043	Interest Rate Swaps	855,990		87247U-AS-2	TICP CLO LTD-TICP 2014-3A AR	1	40,000,000	40,000,000
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,100,000	5,119,528	04/09/2013	04/09/2043	Interest Rate Swaps			38137P-AE-0	GOLDENTREE LOAN OPP X LTD	1	5,100,000	5,119,528
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,968,064	04/09/2013	04/09/2043	Interest Rate Swaps			94184B-D8-9	WATERS CORPORATION	2	4,000,000	3,968,064
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		949,946	921,593	04/09/2013	04/09/2043	Interest Rate Swaps			49638W-AD-8	KINGSLAND LTD	1	949,946	921,593
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		871,576	902,317	04/09/2013	04/09/2043	Interest Rate Swaps			39809F-AC-2	GREYWOLF CLO I LTD	1	871,576	902,317
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		691,256	685,269	04/09/2013	04/09/2043	Interest Rate Swaps			00191L-AC-6	ARES IIR CLO LTD	1	691,256	685,269
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		696,113	671,233	04/09/2013	04/09/2043	Interest Rate Swaps			14310D-AG-2	CARLYLE GLOBAL MARKET STR	1	696,113	671,233
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		500,000	500,027	04/09/2013	04/09/2043	Interest Rate Swaps			67590B-AE-0	OCTAGON INV PARTNERS XV	1	500,000	500,027
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	60,500,000	61,355,990	04/09/2013	04/09/2043	Interest Rate Swaps	855,990		126612-AJ-9	CVP CASCADE CLO LTD-CVPC 2013-CLO1 A1R	1	60,500,000	60,500,000
92553PA*3	Viacom, Inc. Senior Note	2	20,000,000	23,728,089	25,731,986	12/20/2013	03/20/2019	5 Yr Credit Default Swap	228,089	270,582	Q3915#-AB-2	Fletcher Building Intern Gtd Senior Note	2	23,500,000	25,461,404
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	111,964,681	121,265,174	03/05/2014	03/05/2034	Interest Rate Swaps		11,251,864	872455-AA-8	TICP CLO I LTD-SR SEC'D NT CL A-1 144A	1	111,964,681	110,013,310
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,200,000	12,199,878	03/05/2014	03/05/2034	Interest Rate Swaps			55818P-AS-9	MADISON PARK FUNDING LTD-MDPK 2014-12A CR	1	12,200,000	12,199,878

STATEMENT AS OF MARCH 31, 2017 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
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	19,945,250	31,655,260	03/05/2014	03/05/2034	Interest Rate Swaps		11,280,260	346845-AC-4	FORT BENNING FAM	1	19,945,250	20,375,000
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,045,538	19,213,386	03/05/2014	03/05/2034	Interest Rate Swaps			247361-PP-9	DELTA AIR LINES INC DEL	1	19,045,538	19,213,386
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,368,275	13,481,282	03/05/2014	03/05/2034	Interest Rate Swaps			247361-SS-7	DELTA AIR LINES INC DEL	1	13,368,275	13,481,282
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,621,792	11,724,197	03/05/2014	03/05/2034	Interest Rate Swaps			247361-MM-7	AUTODATA PUBLISHING GROUP	1	11,621,792	11,724,197
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,136,333	11,234,460	03/05/2014	03/05/2034	Interest Rate Swaps			247361-KK-3	AUTODATA PUBLISHING GROUP	1	11,136,333	11,234,460
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		29,585,936	29,656,139	03/05/2014	03/05/2034	Interest Rate Swaps			758750-AA-2	REGAL-BELOIT CORPORATION	2	29,585,936	29,656,139
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	176,132,388	170,678,684	05/19/2014	05/19/2044	Interest Rate Swaps		18,281,644	77277L-GO-1	ROCKALL CLO BV EURO CL VF-1 SR SECD VAR FDG NT	1	176,132,388	152,397,040
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	85,307,789	93,737,719	05/19/2014	05/19/2034	Interest Rate Swaps		9,934,786	43132R-AA-9	HILDENE CLO I LTD-SR SECD NT SER 2013-1A CL A	1	85,307,789	83,802,933
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		40,823,117	39,604,673	05/19/2014	05/19/2034	Interest Rate Swaps			49638W-AD-8	KINGSLAND VI LTD-SECD DEF MEZZ NT CL C 144A	1	40,823,117	39,604,673
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,275,024	13,000,000	05/19/2014	05/19/2034	Interest Rate Swaps			26249E-AC-9	DRYDEN SENIOR LOAN FUND-SERIES 2014-31A CLASS B	1	13,275,024	13,000,000
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	156,000,000	174,890,042	05/19/2014	05/19/2044	Interest Rate Swaps		18,578,666	05363U-AC-7	CL A	1	156,000,000	156,311,376
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,350,000	11,351,169	05/19/2014	05/19/2044	Interest Rate Swaps			09073V-AS-3	BIRCHWOOD PARK CLO LTD-BROHW 2014- 1A B1R	1	11,350,000	11,351,169
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,018,670	5,092,939	05/19/2014	05/19/2044	Interest Rate Swaps			38021B-AG-5	GOAL CAPITAL FUNDING TRU-SERIES 2006-1 CLASS B	1	5,018,670	5,092,939
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,080,287	4,060,340	05/19/2014	05/19/2044	Interest Rate Swaps			429827-AS-7	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B2	1	4,080,287	4,060,340
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	8,815,382	27,200,346	05/19/2014	05/19/2044	Interest Rate Swaps		18,525,355	03765D-AE-0	APIDOS CLO XVIII-MEZZ DEF NT CL B ALM LOAN FUNDING-SERIES 2013-7R2A	1	8,815,382	8,674,991
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,113,175	05/19/2014	05/19/2044	Interest Rate Swaps			00164B-AS-6	CLASS A2R	1	15,000,000	15,113,175
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,019,470	05/19/2014	05/19/2044	Interest Rate Swaps			09627V-AS-4	BLUEMOUNTAIN CLO LTD-SERIES 2014-4A CLASS B1R	1	15,000,000	15,019,470
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,001,800	05/19/2014	05/19/2044	Interest Rate Swaps			38137F-AE-2	GOLDENTREE LOAN OPPORTUN-GLD11 2015-11A BR	1	15,000,000	15,001,800
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,146,475	05/19/2014	05/19/2044	Interest Rate Swaps			67091H-AK-7	CHA LOAN FUNDING LTD-OHALF 2012-1A B1R	1	15,000,000	15,146,475
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,600,000	14,745,854	05/19/2014	05/19/2044	Interest Rate Swaps			09628W-AC-6	BLUEMOUNTAIN CLO LTD-SERIES 16-2A CLASS A2	1	14,600,000	14,745,854
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,900,000	13,901,418	05/19/2014	05/19/2044	Interest Rate Swaps			92915P-AB-1	VOYA CLO LTD-INGIM 2014-1A A2AR ... BLUEMOUNTAIN CLO LTD-BLUEM 2012-2A	1	13,900,000	13,901,418
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,850,000	13,894,209	05/19/2014	05/19/2044	Interest Rate Swaps			09626R-AQ-8	BR	1	13,850,000	13,894,209
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,850,000	13,926,438	05/19/2014	05/19/2044	Interest Rate Swaps			11014P-AB-1	BRISTOL PARK CLO LTD-SERIES 2016-1A CLASS B	1	13,850,000	13,926,438
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,625,000	12,753,030	05/19/2014	05/19/2044	Interest Rate Swaps			88433A-AC-3	THL CR WIND RIV 2016-1 CLO-SR SECD NT CL B 144A	1	12,625,000	12,753,030
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,150,000	12,213,848	05/19/2014	05/19/2044	Interest Rate Swaps			05682B-AC-0	BAIN CAPITAL CREDIT CLO -SERIES BCC 2016-2A CLASS B	1	12,150,000	12,213,848
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,633,269	8,858,636	05/19/2014	05/19/2044	Interest Rate Swaps			23340L-AA-2	DRB PRIME STUDENT LOAN T-SERIES 2015-B CLASS A1	2	8,633,269	8,858,636
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,175,000	11,176,419	05/19/2014	05/19/2044	Interest Rate Swaps			04941M-AF-2	ATLAS SENIOR LOAN FUND L-ATCLO 2014-1A BR	1	11,175,000	11,176,419
57629*BJJ	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	142,661,109	158,162,449	05/19/2014	05/19/2044	Interest Rate Swaps		18,159,789	49638W-AB-2	KINGSLAND VI LTD-SR SECD NT CL A1 144A	1	142,661,109	140,002,660
57629*BJJ	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,679,359	1,688,346	05/19/2014	05/19/2044	Interest Rate Swaps			82835A-AE-6	SILVERADO CLO 2006-11 LTD-SR SECD NT CL A-1-J 144A	1	1,679,359	1,688,346
57629*BJJ	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,218,627	11,424,109	05/19/2014	05/19/2044	Interest Rate Swaps			05617W-AA-1	BARSON CLO LTD 2013-1-SR SECD NT CL A 144A	1	11,218,627	11,424,109
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	145,487,151	161,166,367	05/19/2014	05/19/2044	Interest Rate Swaps		18,159,789	49638Y-AA-0	KINGSLAND VII LTD-SR SECD NT CL A 144A	1	145,487,151	143,006,578

S105.5

STATEMENT AS OF MARCH 31, 2017 OF THE Massachusetts Mutual Life Insurance Company

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

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

1	Replication (Synthetic Asset) Transactions							Components of the Replication (Synthetic Asset) Transactions							
	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
								9	10	11	12	13	14	15	16
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,387,549	15,389,026	05/19/2014	05/19/2044	Interest Rate Swaps			056162-AC-4	BABSON CLO LTD-SERIES 15-1A CLASS B	1	15,387,549	15,389,026
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,150,000	9,191,751	05/19/2014	05/19/2044	Interest Rate Swaps			79410U-AC-5	SALEM FIELDS CLO LTD-SBF 2016-2A A2	1	9,150,000	9,191,751
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	40,770,765	58,223,277	05/19/2014	05/19/2044	Interest Rate Swaps		18,220,717	36248M-AA-5	GT LOAN FINANCING LTD-SERIES 2013-1A CLASS A	1	40,770,765	40,002,560
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		77,000,000	77,002,079	05/19/2014	05/19/2044	Interest Rate Swaps			46617N-AA-5	JFIN CLO 2014-111 LTD-SR SECD NOTE CLASS A-1 144A	1	77,000,000	77,002,079
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		32,541,498	31,962,848	05/19/2014	05/19/2044	Interest Rate Swaps			50184V-AC-8	LGM XIV LTD PARTNERSHIP-SR NT SER 14A CL A 144A	1	32,541,498	31,962,848
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,765,415	1,716,553	05/19/2014	05/19/2044	Interest Rate Swaps			87159F-AB-8	144A SYMPHONY CLO XII LTD-SR NT CL B-1	1	1,765,415	1,716,553
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	122,694,026	139,236,554	05/19/2014	05/19/2044	Interest Rate Swaps		18,235,949	126612-AA-8	CVP CASCADE CLO 1 LTD-NT CL A-1 144A	1	122,694,026	121,000,605
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,560,000	13,560,000	05/19/2014	05/19/2044	Interest Rate Swaps			64130H-AA-9	NEUBERGER BERMAN CLO LTD-NEUB 2017-24A A	1	13,560,000	13,560,000
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,600,000	13,600,000	05/19/2014	05/19/2044	Interest Rate Swaps			64130H-AC-5	NEUBERGER BERMAN CLO LTD-NEUB 2017-24A B1	1	13,600,000	13,600,000
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,000,000	05/19/2014	05/19/2044	Interest Rate Swaps			817176-AN-0	SENECA PARK CLO LTD-SPARK 2014-1A B1R	1	15,000,000	15,000,000
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	135,000,000	151,000,000	167,837,324	05/19/2014	05/19/2044	Interest Rate Swaps		16,837,324	05363U-AS-2	AVERY POINT CLO LTD-SERIES 14-1A CLASS AR	1	151,000,000	151,000,000
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,200,000	7,203,758	05/19/2014	05/19/2044	Interest Rate Swaps			55952Y-AL-1	MAGNETITE CLO LTD-MAGNE 2014-BA CLASS CR	1	7,200,000	7,203,758
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	85,000,000	83,668,302	76,308,177	05/09/2014	05/09/2034	Interest Rate Swaps		8,082,648	77277L-B8-9	ROCKALL CLO BV Variable Funding Note - GBP	1	83,668,302	68,225,529
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,900,000	13,962,036	05/09/2014	05/09/2034	Interest Rate Swaps			55952Y-AK-3	MAGNETITE CLO LTD-SERIES 14-8A CLASS BR	1	13,900,000	13,962,036
57629*BQ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	36,775,000	45,305,607	06/05/2014	06/05/2044	Interest Rate Swaps		8,530,607	43132V-AN-2	HILDENE CLO LTD-HLDN 2014-3A AR	1	36,775,000	36,775,000
57629*BQ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		35,000,000	36,445,115	06/05/2014	06/05/2044	Interest Rate Swaps			375916-BF-9	GILDAN ACTIVEWEAR, INC	3	35,000,000	36,445,115
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	132,056,086	144,609,530	07/22/2014	07/22/2044	Interest Rate Swaps		14,601,730	126611-AA-0	CVP CASCADE CLO 2 LTD NT CL A-1	1	132,056,086	130,007,800
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	24,379,585	38,615,921	07/22/2014	07/22/2044	Interest Rate Swaps		14,614,481	126611-AA-0	CVP CASCADE CLO 2 LTD NT CL A-1 C1FC FUNDING LTD-SERIES 2007-3A CLASS A1J	1	24,379,585	24,001,440
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,799,187	5,817,355	07/22/2014	07/22/2044	Interest Rate Swaps			17178N-AC-3	SYMPHONY CLO XII LTD-SR NT CL A 144A	1	5,799,187	5,817,355
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		39,253,670	38,759,765	07/22/2014	07/22/2044	Interest Rate Swaps			87159F-AA-0	144A CAVALRY CLO III LTD-SR SEC NT CL A	1	39,253,670	38,759,765
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,434,454	25,003,025	07/22/2014	07/22/2044	Interest Rate Swaps			14954W-AA-4	2016-1A A2	1	25,434,454	25,003,025
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,763,718	7,600,334	04/09/2013	04/09/2043	Interest Rate Swaps			26249B-AA-9	DRYDEN 30 SR LN FD-SR SEC NT CL A 144A CREDIT PARTNERS LTD-SERIES 2012-7A CLASS CR	1	7,763,718	7,600,334
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,975,000	2,986,772	04/09/2013	04/09/2043	Interest Rate Swaps			67102Q-AP-3	TCI-CENT CLO 2016-1 LTD.-TCENT	1	2,975,000	2,986,772
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,540,000	6,616,099	04/09/2013	04/09/2043	Interest Rate Swaps			87231L-AC-5	WELLFLEET CLO LTD-WELF 2017-1A A1	1	6,540,000	6,616,099
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,250,000	9,250,000	04/09/2013	04/09/2043	Interest Rate Swaps			94950G-AA-5	WIND RIVER CLO LTD-SERIES 16-2A CLASS B	1	9,250,000	9,250,000
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,750,000	5,772,195	04/09/2013	04/09/2043	Interest Rate Swaps			88433B-AC-1	ARES CLO LTD-ARES 2014-1A A2R	1	5,750,000	5,772,195
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	17,000,000	31,613,325	07/22/2014	07/22/2044	Interest Rate Swaps		14,614,481	04014W-AL-9	OCTAGON INV PARTNERS XVI LTD-SR SECD NT CL A	1	17,000,000	16,998,844
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,035,186	8,942,366	07/22/2014	07/22/2044	Interest Rate Swaps			67590B-AA-8	AVERY POINT IV CLO LTD-SR SECD NT CL B1	1	9,035,186	8,942,366
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		26,507,039	26,507,102	07/22/2014	07/22/2044	Interest Rate Swaps			05363U-AE-3	MADISON PARK FDG XI LTD NT CL B-1	1	26,507,039	26,507,102
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,319,605	10,002,030	07/22/2014	07/22/2044	Interest Rate Swaps			55818K-AG-6	APIDOS CLO XX-MEZZ DEF NT CL C	2	10,319,605	10,002,030
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,471,333	4,560,383	07/22/2014	07/22/2044	Interest Rate Swaps			03765L-AG-7		1	4,471,333	4,560,383

SI05.6

STATEMENT AS OF MARCH 31, 2017 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*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,000,000	17,006,205	07/22/2014	07/22/2044	Interest Rate Swaps			55818P-AN-0	MADISON PARK FUNDING LTD-IDPK 2014-12A B1R	1	17,000,000	17,006,205
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,284,837	8,267,916	07/22/2014	07/22/2044	Interest Rate Swaps			75887N-AC-3	REGATTA V1 FUNDING LTD-SER 2016-1A CL A	1	8,284,837	8,267,916
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,900,000	6,900,000	07/22/2014	07/22/2044	Interest Rate Swaps			38136F-AL-7	Goldentree Loan Managem-GLM 2017-1A C	1	6,900,000	6,900,000
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,547,080	1,500,146	07/22/2014	07/22/2044	Interest Rate Swaps			87244D-AC-8	THL CR WIND RIV 2013-1 CLO-SR SECD NT CL A-2 144A	1	1,547,080	1,500,146
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,950,000	9,901,720	07/22/2014	07/22/2044	Interest Rate Swaps			011659-ZZ-5	ALASKA A1R GROUP INC.	2	9,950,000	9,901,720
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,000,000	20,704,922	07/22/2014	07/22/2044	Interest Rate Swaps			67332F-AG-8	RRPF ENGINE LEASING LIMIT	2	23,000,000	20,704,922
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	25,025,695	39,190,066	07/22/2014	07/22/2044	Interest Rate Swaps		14,563,477	82842B-AA-0	SILVERMORE CLO LTD-SR SECD NT CL A-1 144A	1	25,025,695	24,626,589
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		24,689,486	24,406,930	07/22/2014	07/22/2044	Interest Rate Swaps			03764D-AB-7	APIDOS CLO X11 SR SECD NT CL B-1	1	24,689,486	24,406,930
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,740,389	22,011,924	07/22/2014	07/22/2044	Interest Rate Swaps			49638W-AE-6	KINGSLAND LTD-SERIES 2013-6A CLASS C	1	22,740,389	22,011,924
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,709,621	20,005,080	07/22/2014	07/22/2044	Interest Rate Swaps			67104L-AB-3	CHA LN FDG 2013-2 LTD-SR SECD NT CL B	1	20,709,621	20,005,080
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,603,242	23,340,419	07/22/2014	07/22/2044	Interest Rate Swaps			09627R-AA-2	BLLEMOUNTAIN CLO 2014-3 LTD-SR SEC NT CLASS A1	1	23,603,242	23,340,419
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,005,340	07/22/2014	07/22/2044	Interest Rate Swaps			05363U-AJ-2	AVERY POINT IV CLO LTD-SR SECD DEF NT CL C	1	15,000,000	15,005,340
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	23,704,043	37,896,211	07/22/2014	07/22/2044	Interest Rate Swaps		14,576,228	67590R-AC-9	OCTAGON LOAN FUNDING LTD-SERIES 2014-1A CLASS A1	1	23,704,043	23,319,983
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,512,871	23,209,114	07/22/2014	07/22/2044	Interest Rate Swaps			38137D-AA-5	GOLDENTREE LOAN OPP VII LTD-SR SEC NT CL A	1	23,512,871	23,209,114
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,848,141	22,383,872	07/22/2014	07/22/2044	Interest Rate Swaps			67108F-AA-4	OZLM FUNDING IV LTD-SR SECD NT CL A1 144A	1	22,848,141	22,383,872
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,400,000	22,271,693	07/22/2014	07/22/2044	Interest Rate Swap			05363S-AC-2	AVERY POINT II CLO LTD SR SECD NT CL B-1	1	22,400,000	22,271,693
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,250,000	4,279,708	07/22/2014	07/22/2044	Interest Rate Swap			76761R-AE-9	Riserva Clo Ltd-SERIES 2016-3A CLASS C1	1	4,250,000	4,279,708
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,500,000	8,582,272	07/22/2014	07/22/2044	Interest Rate Swap			87231L-AA-9	T01-CENT CLO 2016-1 LTD.-TCENT 2016-1A A1	1	8,500,000	8,582,272
57629*BIW	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,397,955	20,001,520	07/22/2014	07/22/2044	Interest Rate Swap			43132R-AC-5	HILDENE CLO I LTD-SR SECD NT SER 2013-1A CL B-1	1	20,397,955	20,001,520
57629*BX8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	30,000,000	15,000,000	18,128,286	08/18/2014	08/18/2044	Interest Rate Swap		3,129,696	88322U-AM-1	THACHER PARK CLO-THPRK 2014-1A BR SYMPHONY CLO LTD-SERIES 14-15A	1	15,000,000	14,998,590
57629*BX8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,400,000	9,399,276	08/18/2014	08/18/2044	Interest Rate Swap			87154E-AJ-9	CLASS B1R	1	9,400,000	9,399,276
57629*BX8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,944,311	13,238,847	08/18/2014	08/18/2044	Interest Rate Swap			87155F-AL-0	SYMPHONY CLO II LTD-SR NT CL A-3 144A	1	12,944,311	13,238,847
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	11,900,000	16,828,156	08/27/2014	08/27/2044	Interest Rate Swap		4,848,961	67092R-AA-6	'00P CLO LTD-SERIES 16-12A CLASS A1	1	11,900,000	11,979,195
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,645,536	9,555,990	08/27/2014	08/27/2044	Interest Rate Swap			46617Y-AB-9	JFIN CLO 2015 LTD SR SECD NT CL B-1	1	9,645,536	9,555,990
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,185,645	20,003,320	08/27/2014	08/27/2044	Interest Rate Swap			872455-AE-0	TICP CLO I LTD-SR SECD NT CL A-2B 144A	1	20,185,645	20,003,320
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,050,000	9,050,000	08/27/2014	08/27/2044	Interest Rate Swap			92912V-AN-5	VOYA CLO LTD-VOYA 2014-2A A1R	1	9,050,000	9,050,000
57629*CA7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	60,500,000	65,369,417	08/27/2014	08/27/2044	Interest Rate Swap		4,869,417	126612-AJ-9	CVP CASCADE CLO LTD-CVPC 2013-CLO1 A1R	1	60,500,000	60,500,000
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	18,650,000	23,470,328	08/27/2014	08/27/2044	Interest Rate Swap		4,818,276	05363X-AE-7	AVERY POINT V CLO LTD SR SECD NT CL B	1	18,650,000	18,652,052
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,153,304	18,750,000	08/27/2014	08/27/2044	Interest Rate Swap			03765D-AC-4	APIDOS XVIIII CLO SR SECD NT CL A-2A	1	19,153,304	18,750,000
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,600,000	3,599,712	08/27/2014	08/27/2044	Interest Rate Swap			87154E-AQ-3	SYMPHONY CLO LTD-SYMP 2014-15A DR	2	3,600,000	3,599,712
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,100,000	14,144,528	08/27/2014	08/27/2044	Interest Rate Swap			06759Y-AA-3	BARINGS CLO LTD-BABS 2016-3A A1	1	14,100,000	14,144,528

S105.7

STATEMENT AS OF MARCH 31, 2017 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*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	21,300,000	26,082,263	08/27/2014	08/27/2044	Interest Rate Swap	4,782,476	4,782,476	09627L-AN-7	BLUEMOUNTAIN CLO LTD-BLUEM 2014-1A B1R	1	21,300,000	21,299,787
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	18,878,791	18,878,791	18,502,738	08/27/2014	08/27/2044	Interest Rate Swap			49638Y-AC-6	KINGSLAND VII LTD-SR SECD NT CL B 144A	1	18,878,791	18,502,738
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	19,200,000	19,200,000	19,199,923	08/27/2014	08/27/2044	Interest Rate Swap			04941R-AL-8	ATLAS SENIOR LOAN FUND L-ATCLO 2014-6A BR	1	19,200,000	19,199,923
57629*CD1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	30,000,000	18,628,427	21,063,075	09/04/2014	09/04/2044	Interest Rate Swap	2,785,553		09626Q-AC-1	BLUEMOUNTAIN CLO 2014-2 LTD-SR SEC NOTE CL B1	1	18,628,427	18,277,522
57629*CD1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	4,986,770	4,986,770	4,977,693	09/04/2014	09/04/2044	Interest Rate Swap			05617W-AC-7	BABSON CLO LTD 2013-1-SR SECD NT CL B 144A	1	4,986,770	4,977,693
57629*CD1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	16,846,646	16,846,646	16,511,271	09/04/2014	09/04/2044	Interest Rate Swap			14954T-AC-7	CAVALRY CLO II LTD-NT CL B-1	1	16,846,646	16,511,271
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	38,550,000	52,955,483	09/08/2014	09/08/2044	Interest Rate Swap	14,405,483		87247C-AN-3	TICP CLO LTD-TICP 2014-2A A1AR	1	38,550,000	38,550,000
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	20,000,000	20,000,000	20,000,000	09/08/2014	09/08/2044	Interest Rate Swap			00191L-AQ-5	ARES CLO LTD-SERIES 13-3A CLASS B1R	1	20,000,000	20,000,000
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	12,200,000	12,200,000	12,210,699	09/08/2014	09/08/2044	Interest Rate Swap			033286-AC-9	ANCHORAGE CAPITAL CLO 5 LTD-SR SECURED NT CL A	1	12,200,000	12,210,699
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	60,000,000	60,769,920	09/08/2014	09/08/2044	Interest Rate Swap			949496-AC-7	WELLFLEET CLO 2015-1 LTD-SR SECD NT CL A-1 144A	1	60,000,000	60,769,920
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	4,330,000	4,330,000	4,376,794	09/08/2014	09/08/2044	Interest Rate Swap			55954E-AJ-8	MAGNETITE XVII LTD-DEF MEZZ NT SER 16-17A CL C	1	4,330,000	4,376,794
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	13,000,000	13,000,000	13,044,525	09/08/2014	09/08/2044	Interest Rate Swap			48250W-AA-3	KKR CLO 14 LTD-SR SECD NT SER 14 CL A-1A	1	13,000,000	13,044,525
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	1,636,485	1,636,485	1,679,274	09/08/2014	09/08/2044	Interest Rate Swap			78442G-PR-1	SLM STUDENT LOAN TRUST	1	1,636,485	1,679,274
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	2,000,000	2,000,000	1,984,032	09/08/2014	09/08/2044	Interest Rate Swap			941848-D8-9	WATERS CORPORATION	2	2,000,000	1,984,032
57629*CF6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	30,000,000	14,000,000	17,968,988	09/17/2014	09/17/2044	Interest Rate Swap	3,969,338		39862E-AB-0	GRIPPEN PARK CLO LTD-SERIES 17-1A CLASS B	1	14,000,000	13,999,650
57629*CF6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	6,600,000	6,600,000	6,604,613	09/17/2014	09/17/2044	Interest Rate Swap			05618M-AY-0	BABSON CLO LTD-BABSON 2014-3A C1R	1	6,600,000	6,604,613
57629*CF6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	18,000,000	18,000,000	18,012,708	09/17/2014	09/17/2044	Interest Rate Swap			14310K-AC-5	CARLYLE GLOBAL MKT CLO 2013-4 SR SEC NT CL A1	1	18,000,000	18,012,708
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	10,850,000	14,056,310	10/06/2014	10/06/2034	Interest Rate Swap	3,165,340		03763Y-AQ-9	APIDOS CLO-APID 2012-11A BR	1	10,850,000	10,890,970
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	9,300,000	9,300,000	9,303,171	10/06/2014	10/06/2034	Interest Rate Swap			55818R-AJ-5	MADISON PARK FDG XIV LTD MEZZ NT CL C	1	9,300,000	9,303,171
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	9,366,993	9,366,993	9,349,944	10/06/2014	10/06/2034	Interest Rate Swap			05617W-AC-7	BABSON CLO LTD 2013-1-SR SECD NT CL B 144A	1	9,366,993	9,349,944
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	9,403,707	9,403,707	9,205,704	10/06/2014	10/06/2034	Interest Rate Swap			04941G-AE-8	ATLAS SENIOR LOAN FUND L-SERIES 2013-1A CLASS C	1	9,403,707	9,205,704
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	4,118,049	4,118,049	4,051,251	10/06/2014	10/06/2034	Interest Rate Swap			00164K-AC-1	ALM XIV LTD-SR SECURED NOT CLASS A2	1	4,118,049	4,051,251
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	3,785,470	3,785,470	3,750,491	10/06/2014	10/06/2034	Interest Rate Swap			50188G-AN-3	LOM XVII LTD PARTNERSHIP-DEF MEZZ NT CL D 144A	3	3,785,470	3,750,491
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	3,719,465	3,719,465	3,769,970	10/06/2014	10/06/2034	Interest Rate Swap			056162-AG-5	BABSON CLO LTD 2015-1-SR SECD DEF NT CL D-1	2	3,719,465	3,769,970
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	5,000,000	5,000,000	5,000,000	10/06/2014	10/06/2034	Interest Rate Swap			817176-AS-9	SENECA PARK CLO LTD-SPARK 2014-1A CR	1	5,000,000	5,000,000
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	45,000,000	54,004,094	10/06/2014	10/06/2044	Interest Rate Swap	9,004,499		85815X-AQ-6	STEELE CREEK CLO LTD-STCR 2014-1A A1R	1	45,000,000	44,999,595
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	9,347,607	9,347,607	9,266,687	10/06/2014	10/06/2044	Interest Rate Swap			09627R-AE-4	BLUEMOUNTAIN CLO 2014-3 LTD SR SECD DEF NT CL B	1	9,347,607	9,266,687
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	5,300,000	5,300,000	5,300,000	10/06/2014	10/06/2044	Interest Rate Swap			67572N-AW-6	OCTAGON INV PARTNERS XII LTD SR SEC NT CL B-1-R	1	5,300,000	5,300,000
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	20,000,000	20,000,000	20,000,000	10/06/2014	10/06/2044	Interest Rate Swap			94950G-AC-1	WELLFLEET CLO LTD-WELF 2017-1A A2	1	20,000,000	20,000,000
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	15,375,000	15,375,000	15,375,000	10/06/2014	10/06/2044	Interest Rate Swap			87247C-AQ-6	TICP CLO LTD-TICP 2014-2A A2AR	1	15,375,000	15,375,000
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	12,105,130	12,105,130	11,879,976	10/06/2014	10/06/2044	Interest Rate Swap			00248P-AC-0	A VOCE CLO LTD SR SECD NT CL A-2	1	12,105,130	11,879,976

S105.8

STATEMENT AS OF MARCH 31, 2017 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*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,459,515	7,326,492	10/06/2014	10/06/2044	Interest Rate Swap			93677P-AB-7	WASATCH LTD-SERIES 2006-1A CLASS A1B	1	7,459,515	7,326,492
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,015,761	4,000,836	10/06/2014	10/06/2044	Interest Rate Swap			55818Y-AG-6	MADISON PARK FUNDING LTD-SERIES 15-17A CLASS C	1	4,015,761	4,000,836
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	175,000,000	60,000,000	71,816,672	10/10/2014	10/10/2044	Interest Rate Swap		13,035,632	67332F-AD-5	RRPF Engine Leasing Ltd Senior Secured	2	60,000,000	58,781,040
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		26,873,156	27,345,750	10/10/2014	10/10/2044	Interest Rate Swap			629394-AA-5	NTC CAPITAL I-UNSECURED BOND	2	26,873,156	27,345,750
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,745,283	21,481,535	10/10/2014	10/10/2044	Interest Rate Swap			230000-AB-7	CULLEN/FROST CAP TR II-SUBORDINATED NOTE	2	20,745,283	21,481,535
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,500,000	20,604,386	10/10/2014	10/10/2044	Interest Rate Swap			09627X-AW-1	BLUEMOUNTAIN CLO LTD-SERIES 2015-1A CLASS A2R	1	20,500,000	20,604,386
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,700,000	18,715,839	10/10/2014	10/10/2044	Interest Rate Swap			72349B-AK-0	PINNACLE PARK CLO LTD-SERIES 2014-1A CLASS BR	1	18,700,000	18,715,839
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,100,000	16,139,799	10/10/2014	10/10/2044	Interest Rate Swap			873549-AC-3	Taconic Park CLO Ltd 201-SERIES 2016-1A CLASS A2	1	16,100,000	16,139,799
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,848,323	1,877,334	10/10/2014	10/10/2044	Interest Rate Swap			09627L-AJ-6	BLUEMOUNTAIN CLO 2014-1 LTD SR SEC DEF NT CL D	1	1,848,323	1,877,334
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,504,350	4,584,370	10/10/2014	10/10/2044	Interest Rate Swap			09627V-AG-0	BLUEMOUNTAIN CLO 2014-4 LTD-SR SEC DEF NT CL D	2	4,504,350	4,584,370
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,164,746	3,240,283	10/10/2014	10/10/2044	Interest Rate Swap			05617Y-AG-4	BABSON CLO LTD 2013-II-SR SEC DEF NT CL C 144A	1	3,164,746	3,240,283
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,596,867	7,312,254	10/10/2014	10/10/2044	Interest Rate Swap			78442G-RC-2	SLMA 2005-9 STUDENT LN-BKD NT CL B	1	6,596,867	7,312,254
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,755,339	6,860,309	10/10/2014	10/10/2044	Interest Rate Swap			09625J-AF-1	BLUEMOUNTAIN CLO 2013-3 LTD SR SEC DEF NT CL D	2	6,755,339	6,860,309
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,390,047	22,302,067	11/04/2014	11/04/2044	Interest Rate Swap		9,295,411	86482B-AC-5	SUGAR CREEK CLO LTD-SR SEC DEF NT SER 2012-1A CL B	1	13,390,047	13,006,656
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,264,759	13,001,261	11/04/2014	11/04/2044	Interest Rate Swap			12627U-AB-7	COA SUMMIT CLO LTD-SR SEC DEF SER 2014-1A CL A2	1	13,264,759	13,001,261
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,500,000	12,500,563	11/04/2014	11/04/2044	Interest Rate Swap			26251B-AC-0	DRYDEN XXVIII SR LN FD-SR SEC NT CL A-2L	1	12,500,000	12,500,563
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,567,596	4,570,946	11/04/2014	11/04/2044	Interest Rate Swap			817176-AE-0	SENECA PARK CLO LTD-SEC DEF NT CL C 144A	1	4,567,596	4,570,946
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,406,968	13,710,098	11/04/2014	11/04/2044	Interest Rate Swap			291086-AB-2	EMERSON PLACE CLO LTD-SR NT SER 2006-1A CL B	1	13,406,968	13,710,098
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,125,000	12,126,928	11/04/2014	11/04/2044	Interest Rate Swap			143090-AU-5	CARLYLE GLOBAL MKT CLO 2012-2 SR SEC NT CL B1R	1	12,125,000	12,126,928
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,100,000	12,184,761	11/04/2014	11/04/2044	Interest Rate Swap			404360-AC-6	HIGHBRIDGE LOAN MANAGEME-HLM 9A-2016 A2	1	12,100,000	12,184,761
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,020,000	10,020,000	11/04/2014	11/04/2044	Interest Rate Swap			92912V-AS-4	VOYA CLO LTD-VOYA 2014-2A BR	1	10,020,000	10,020,000
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,700,000	18,710,509	11/04/2014	11/04/2044	Interest Rate Swap			05618M-AU-8	BABSON CLO LTD-BABSON 2014-3A B1R	1	18,700,000	18,710,509
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,868,490	6,802,448	11/04/2014	11/04/2044	Interest Rate Swap			46616A-AE-6	JFIN CLO 2012 LTD NT CL B	1	6,868,490	6,802,448
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,057,973	6,009,342	11/04/2014	11/04/2044	Interest Rate Swap			43132H-AE-0	HILDENE CLO IV LTD-DEF MEZZ NT SER 2015-4A CL B	1	6,057,973	6,009,342
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,019,708	2,000,958	11/04/2014	11/04/2044	Interest Rate Swap			46617Y-AB-9	JFIN CLO 2015 LTD SR SEC DEF NT CL B-1	1	2,019,708	2,000,958
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	14,112,873	23,281,898	11/04/2014	11/04/2044	Interest Rate Swap		9,321,099	09627D-AC-9	BLUEMOUNTAIN CLO 2013-4 LTD SR SEC DEF NT CL B-1	1	14,112,873	13,960,799
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,150,349	13,902,780	11/04/2014	11/04/2044	Interest Rate Swap			55818R-AG-1	MADISON PARK FDG XIV LTD-SR NT CL B 144A	1	14,150,349	13,902,780
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,153,423	13,935,459	11/04/2014	11/04/2044	Interest Rate Swap			14955A-AC-7	CAVALRY CLO IV LTD SR SEC DEF NT CL B-1	1	14,153,423	13,935,459
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,300,000	4,324,286	11/04/2014	11/04/2044	Interest Rate Swap			92558A-AA-8	VIBRANT CLO LTD-SERIES 2016-5A CLASS A	1	4,300,000	4,324,286
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,849,160	13,717,426	11/04/2014	11/04/2044	Interest Rate Swap			88390A-AF-7	THL CR WIND RIV 2014-2 CLO SR SEC DEF NT CL B-1	1	13,849,160	13,717,426
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,760,000	13,770,967	11/04/2014	11/04/2044	Interest Rate Swap			14310U-AQ-2	CARLYLE GLOBAL MARKET ST-CGMS 2014-4A BR	1	13,760,000	13,770,967

S105.9

STATEMENT AS OF MARCH 31, 2017 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	Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,800,000	12,810,534	11/04/2014	11/04/2044	Interest Rate Swap			871590-BG-2	SYMPHONY CLO LTD-SYMP 2014-14A B1R	1	12,800,000	12,810,534
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,375,000	1,387,259	11/04/2014	11/04/2044	Interest Rate Swap			05618P-AJ-6	BABSON CLO LTD 2016-1 SECD DEF MEZZ CL C	1	1,375,000	1,387,259
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,113,733	13,000,143	11/04/2014	11/04/2044	Interest Rate Swap			00191L-AC-6	ARES XXVIII CLO LTD SR NT CL B-1	1	13,113,733	13,000,143
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,611,297	13,316,918	11/04/2014	11/04/2044	Interest Rate Swap			64129X-AG-4	NEUBERGER BERMAN CLO XVI-SR SECD NT CL B-1	1	13,611,297	13,316,918
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,790,259	10,599,989	11/04/2014	11/04/2044	Interest Rate Swap			05873L-AC-0	BALLYROCK LTD-SERIES 2014-1A CLASS A2	1	10,790,259	10,599,989
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,000,000	22,527,594	11/04/2014	11/04/2044	Interest Rate Swap		9,526,606	67105V-AE-4	OAK HILL CREDIT PARTNERS-SERIES 2013-9A CLASS B	1	13,000,000	13,000,988
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,863,773	14,444,538	11/04/2014	11/04/2044	Interest Rate Swap			50184V-AE-4	LOM XV LTD PARTNERSHIP-SR SECD NT SER 15A CL C	1	14,863,773	14,444,538
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		45,000,000	44,999,595	11/04/2014	11/04/2044	Interest Rate Swap			85815X-AQ-6	STEELE GREEK CLO LTD-STCR 2014-1A A1R	1	45,000,000	44,999,595
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,499,084	13,403,471	11/04/2014	11/04/2044	Interest Rate Swap			388080-AC-5	GREYWOLF CLO IV LTD SR SECD NT CL A-2	1	13,499,084	13,403,471
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,246,447	14,021,784	11/04/2014	11/04/2044	Interest Rate Swap			09627R-AC-8	BLUEMOUNTAIN CLO 2014-3 LTD SR SECD NT CL A-2	1	14,246,447	14,021,784
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,334,628	7,302,511	11/04/2014	11/04/2044	Interest Rate Swap			398080-AE-1	GREYWOLF CLO IV LTD SR SECD DEF MEZZ NT CL B	1	7,334,628	7,302,511
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,529,561	5,524,508	11/04/2014	11/04/2044	Interest Rate Swap			04941G-AA-6	ATLAS SENIOR LOAN FUND L-SERIES 2013-1A CLASS A	1	5,529,561	5,524,508
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,995,281	14,914,050	11/04/2014	11/04/2044	Interest Rate Swap			08180R-AC-9	BENEFIT STREET PRTRNS CLO VII SR SEC NT CL A-2	1	14,995,281	14,914,050
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	32,100,000	41,652,294	11/04/2014	11/04/2044	Interest Rate Swap		9,552,294	05363U-AU-7	AVERY POINT CLO LTD-SERIES 14-1A CLASS BR	1	32,100,000	32,100,000
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,014,055	11/04/2014	11/04/2044	Interest Rate Swap			74982D-AQ-1	RACE POINT VI CLO LTD SR SECD NT CL B-R	1	15,000,000	15,014,055
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,529,271	15,251,144	11/04/2014	11/04/2044	Interest Rate Swap			00900A-AB-4	AIMCO-SERIES 2014-AA CLASS B1	1	15,529,271	15,251,144
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,660,000	13,660,000	11/04/2014	11/04/2044	Interest Rate Swap			05363U-AW-3	AVERY POINT CLO LTD-SERIES 14-1A CLASS CR	1	13,660,000	13,660,000
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,221,299	11,000,847	11/04/2014	11/04/2044	Interest Rate Swap			92912V-AC-9	VOYA CLO 2014-2 LTD NT CL A-2	1	11,221,299	11,000,847
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,779,395	14,600,511	11/04/2014	11/04/2044	Interest Rate Swap			67104C-AB-3	OAK HILL CREDIT PARTNERS-SERIES 2013 - 8A CLASS B	1	14,779,395	14,600,511
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,070,000	12,138,715	11/04/2014	11/04/2044	Interest Rate Swap			14312L-AC-1	CARLYLE GLOBAL MKT CLO 2016-2 SR SEC NT CL A2A	1	12,070,000	12,138,715
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,019,719	3,162,244	11/04/2014	11/04/2044	Interest Rate Swap			862015-AC-8	STONEY LANE FUNDING LTD-SERIES 2007-1A CLASS A2	1	3,019,719	3,162,244
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,060,000	8,138,029	11/04/2014	11/04/2044	Interest Rate Swap			74983D-AC-1	RACE POINT X CLO LTD SR SECD NT CL B-1	1	8,060,000	8,138,029
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	18,400,977	27,531,793	11/04/2014	11/04/2044	Interest Rate Swap		9,629,359	40538C-AG-5	HALCYON LOAN ADVISORS FU-SERIES 2014-1A CLASS B1	1	18,400,977	17,902,434
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,600,000	16,540,672	11/04/2014	11/04/2044	Interest Rate Swap			05874P-AC-0	BALLYROCK LTD-SERIES 2013-1A CLASS B	1	16,600,000	16,540,672
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,354,192	16,201,555	11/04/2014	11/04/2044	Interest Rate Swap			48617E-AC-1	JFIN CLO 2014 LTD-SR SECD NOTE CLASS B-1	1	16,354,192	16,201,555
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,379,472	13,009,165	11/04/2014	11/04/2044	Interest Rate Swap			87159F-AB-8	SYMPHONY CLO X11 LTD-SR NT CL B-1 144A	1	13,379,472	13,009,165
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		24,090,000	24,090,000	11/04/2014	11/04/2044	Interest Rate Swap			92916X-AA-5	VOYA CLO LTD-INGIM 2013-3A A1R	1	24,090,000	24,090,000
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,500,000	23,500,447	11/04/2014	11/04/2044	Interest Rate Swap			05618D-AL-8	BABSON CLO LTD-BABSN 2014-1A A2R	1	23,500,000	23,500,447
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,810,000	18,810,000	11/04/2014	11/04/2044	Interest Rate Swap			92912V-AQ-8	VOYA CLO LTD-VOYA 2014-2A A2AR	1	18,810,000	18,810,000
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,991,121	4,099,586	11/04/2014	11/04/2044	Interest Rate Swap			78442G-FU-5	SLM STUDENT LOAN TRUST-SERIES 2003-2 CLASS A7	1	3,991,121	4,099,586
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	18,100,000	27,883,489	11/04/2014	11/04/2044	Interest Rate Swap		9,783,489	43132R-AS-0	HILDENE CLO LTD-SERIES 13-1A CLASS BR	1	18,100,000	18,100,000

S105.10



STATEMENT AS OF MARCH 31, 2017 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	Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	20,000,000	11/04/2014	11/04/2044	Interest Rate Swap			58806P-AC-2	MERCER FIELD CLO LP-MERCL 2017-1A A2	1	20,000,000	20,000,000
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,650,000	3,996,255	11/04/2014	11/04/2044	Interest Rate Swap			78443Y-AE-6	SLM STUDENT LOAN TRUST-SERIES 2007-3 CLASS B	2	4,650,000	3,996,255
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,706,771	21,300,660	11/04/2014	11/04/2044	Interest Rate Swap			40538C-AC-4	HALCYON LN ADVISORS FDG 2014-1 LTD SR SEC NT CL A-1	1	21,706,771	21,300,660
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,625,073	15,500,822	11/04/2014	11/04/2044	Interest Rate Swap			053633-AB-9	EVERY POINT III CLO LTD-SR SEC NT CL A	1	15,625,073	15,500,822
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,150,000	15,257,095	11/04/2014	11/04/2044	Interest Rate Swap			38137M-AC-1	Goldentree Loan Opportun-SERIES 16-12A CLASS A2	1	15,150,000	15,257,095
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,505,857	4,413,277	11/04/2014	11/04/2044	Interest Rate Swap			828428-AC-6	SILVERMORE CLO LTD-SR SEC NT CL A-2 144A	1	4,505,857	4,413,277
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,873,847	6,873,533	11/04/2014	11/04/2044	Interest Rate Swap			15135D-AJ-6	CENT CDO 14 LTD-SR TERM NT SER 2007-14A CL A-2A	1	6,873,847	6,873,533
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,066,150	11/04/2014	11/04/2044	Interest Rate Swap			46619T-AA-0	JFIN CLO 2016 LTD - Sr Secd Nt CIA-1	1	15,000,000	15,066,150
57629*002	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,670,768	3,709,229	11/04/2014	11/04/2044	Interest Rate Swap			14311D-AJ-5	CARLYLE GLOBAL MKT CLO 2015-1 MEZZ SEC DEF CL D	2	3,670,768	3,709,229
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	37,248,405	46,535,633	11/04/2014	11/04/2044	Interest Rate Swap		9,757,801	43132V-AA-0	HILDENE CLO III LTD-SR SEC NT SER 2014-3A CL A	1	37,248,405	36,777,832
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,656,334	16,571,115	11/04/2014	11/04/2044	Interest Rate Swap			03329K-AA-1	ANCHORAGE CAPITAL CLO LT-SERIES 2016-8A CLASS A1	1	16,656,334	16,571,115
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,040,000	16,117,441	11/04/2014	11/04/2044	Interest Rate Swap			282523-AB-5	1828 CLO LTD-SR SEC NT CL A-1-S 144A	1	16,040,000	16,117,441
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,286,844	22,021,217	11/04/2014	11/04/2044	Interest Rate Swap			50181G-AC-4	LMI XVI LTD PARTNERSHIP-SR NT SER 16A CL A 144A	1	22,286,844	22,021,217
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,466,687	9,358,331	11/04/2014	11/04/2044	Interest Rate Swap			50184N-AD-4	LMI LTD PARTNERSHIP-SERIES 15A CLASS C	1	9,466,687	9,358,331
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,773,221	4,728,043	11/04/2014	11/04/2044	Interest Rate Swap			26249B-AE-1	DRYDEN 30 SR LN FD-MEZZ SEC DEF NT CL C	1	4,773,221	4,728,043
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,804,226	4,743,898	11/04/2014	11/04/2044	Interest Rate Swap			398079-AE-3	GREYWOLF CLO II LTD SR SEC DEF NT CL B	1	4,804,226	4,743,898
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		77,024	77,177	11/04/2014	11/04/2044	Interest Rate Swap			363206-AA-1	Gale Force 3 CLO Ltd-1ST PRIORITY SR SEC CLASS A-1	1	77,024	77,177
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,550,911	4,579,584	11/04/2014	11/04/2044	Interest Rate Swap			92914R-AG-7	VOYA CLO 2014-4 LTD DEF NT CL C	2	4,550,911	4,579,584
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,950,000	5,949,899	11/04/2014	11/04/2044	Interest Rate Swap			10302V-BG-9	BOWMAN PARK CLO LTD-BOWPK 2014-1A CR	1	5,950,000	5,949,899
57629*CR0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	5,064,160	11/04/2014	11/04/2044	Interest Rate Swap			949496-AC-7	WELLFLEET CLO 2015-1 LTD-SR SEC NT CL A-1 144A	1	5,000,000	5,064,160
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	95,000,000	104,809,178	11/04/2014	11/04/2044	Interest Rate Swap		9,809,178	43132R-AQ-4	HILDENE CLO LTD-SERIES 13-1A CLASS AR	1	95,000,000	95,000,000
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,610,594	22,374,371	11/04/2014	11/04/2044	Interest Rate Swap			92914R-AA-0	VOYA CLO 2014-4 LTD CL A-1 NT	1	22,610,594	22,374,371
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,987,495	3,950,476	11/04/2014	11/04/2044	Interest Rate Swap			46617Y-AB-9	JFIN CLO 2015 LTD SR SEC NT CL B-1	1	3,987,495	3,950,476
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,956,921	7,800,601	11/04/2014	11/04/2044	Interest Rate Swap			92912V-AC-9	VOYA CLO 2014-2 LTD NT CL A-2	1	7,956,921	7,800,601
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2	150,000,000	12,966,094	15,849,942	12/16/2014	12/16/2044	Interest Rate Swap		1,563,769	979JXH-11-5	AUTOSTRADA WIELKOPOLSKA SA	3	12,966,094	14,286,173
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		34,649,025	34,725,775	12/16/2014	12/16/2044	Interest Rate Swap			U8270Y-ZZ-4	SILVER STATE SOLAR SOUTH KINGSLAND V LTD-SR SEC NT CL A2B 144A	2	34,649,025	34,725,775
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		11,242,966	10,849,891	12/16/2014	12/16/2044	Interest Rate Swap			49636R-AL-3	DRYDEN 30 SR LN FD-SR SEC NT CL B	1	11,242,966	10,849,891
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		11,533,172	11,174,866	12/16/2014	12/16/2044	Interest Rate Swap			26249B-AC-5	BALLYROCK LTD-SERIES 2013-1A CLASS C	1	11,533,172	11,174,866
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		11,490,837	11,200,493	12/16/2014	12/16/2044	Interest Rate Swap			05874P-AE-6	VOYA CLO 2014-2 LTD DEF NT CL B	1	11,490,837	11,200,493
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		9,623,132	9,401,589	12/16/2014	12/16/2044	Interest Rate Swap			92912V-AG-0	OCTAGON INV PARTNERS XVI LTD-SR SEC NT CL B1	1	9,623,132	9,401,589
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		10,950,000	10,911,281	12/16/2014	12/16/2044	Interest Rate Swap			67590B-AC-4	VOYA CLO 2014-2 LTD DEF NT CL B	1	10,950,000	10,911,281

S105.11

STATEMENT AS OF MARCH 31, 2017 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	2		11,040,000	11,039,879	12/16/2014	12/16/2044	Interest Rate Swap			14310V-AM-9	CARLYLE GLOBAL MARKET ST-CGMS 2014-2A BR	1	11,040,000	11,039,879
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		11,273,689	11,200,840	12/16/2014	12/16/2044	Interest Rate Swap			46617N-AC-1	JFIN CLO 2014-11 LTD-SR SEC'D NOTE CLASS A-2 144A	1	11,273,689	11,200,840
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		10,930,648	10,804,838	12/16/2014	12/16/2044	Interest Rate Swap			46616A-AJ-5	JFIN CLO 2012 LTD-NOTE CLASS A2B 144A	1	10,930,648	10,804,838
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		10,778,720	10,589,964	12/16/2014	12/16/2044	Interest Rate Swap			50181G-AE-0	LDM LTD PARTNERSHIP-SERIES 16A CLASS B	1	10,778,720	10,589,964
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		7,459,160	7,207,078	12/16/2014	12/16/2044	Interest Rate Swap			14310G-AG-5	CARLYLE GLOBAL MKT CLO 2013-3 SR SEC DEF NT CL B	1	7,459,160	7,207,078
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		3,850,000	3,850,000	12/16/2014	12/16/2044	Interest Rate Swap			67572N-BA-3	OCTAGON INV PARTNERS XII LTD-SEC'D DEF NT CL C-R	1	3,850,000	3,850,000
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		8,100,000	8,199,290	12/16/2014	12/16/2044	Interest Rate Swap			001626-AC-4	ALM XIX Ltd SR SEC'D NT CL A-2	1	8,100,000	8,199,290
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	9,000,000	10,255,194	12/16/2014	12/16/2044	Interest Rate Swap		1,254,591	05617W-AE-3	BABSON CLO LTD 2013-1-SR SEC'D NT CL C 144A	1	9,000,000	9,000,603
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,214,104	7,101,385	12/16/2014	12/16/2044	Interest Rate Swap			46617E-AE-7	JFIN CLO 2014 LTD-MEZZ SEC'D DEF NT CL C	1	7,214,104	7,101,385
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,054,751	7,000,693	12/16/2014	12/16/2044	Interest Rate Swap			33882W-AE-3	FLATIRON CLO 2011-1 LTD DEF MEZZ NOTE CL C-1	1	7,054,751	7,000,693
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	7,000,084	12/16/2014	12/16/2044	Interest Rate Swap			14310D-AE-7	CARLYLE GLOBAL MKT CLO 2013-2 SR SEC NT CL B	1	7,000,000	7,000,084
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,630,767	2,673,369	12/16/2014	12/16/2044	Interest Rate Swap			26249E-AG-0	DRYDEN 31 SR LN FD-MEZZ SEC DEF NT CL D	2	2,630,767	2,673,369
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,500,000	2,499,965	12/16/2014	12/16/2044	Interest Rate Swap			15132V-AG-5	CENT CDO 15 LTD-DEF NT SER 2007-15A CL C 144A	3	2,500,000	2,499,965
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,938,079	2,175,759	12/16/2014	12/16/2044	Interest Rate Swap			46615P-AG-9	JFIN CLO 2007 LTD-DEF MEZZ NOTE CLASS D	1	1,938,079	2,175,759
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,800,816	2,078,723	12/16/2014	12/16/2044	Interest Rate Swap			15135A-AD-5	CENT CDO 12 LTD-DEF MEZZ NT SER 2006-12A CL D	1	1,800,816	2,078,723
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,309,119	6,357,615	12/16/2014	12/16/2044	Interest Rate Swap			92557W-AE-3	VIBRANT CLO IV LTD-SR SEC'D NT CL B 144A	1	6,309,119	6,357,615
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		41,400,000	41,560,549	12/16/2014	12/16/2044	Interest Rate Swap			74983D-AA-5	RACE POINT X CLO LTD SR SEC'D NT CL A	1	41,400,000	41,560,549
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,673,934	17,829,094	12/16/2014	12/16/2044	Interest Rate Swap			94949R-AC-1	WHELLFLEET CLO 2016-1 LTD-SR SEC'D NT CL A 144A	1	17,673,934	17,829,094
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,495,994	17,403,066	12/16/2014	12/16/2044	Interest Rate Swap			858102-AD-8	STEELE CREEK CLO 2016-1 LTD-SR SEC'D NT CL A-1 144A	1	17,495,994	17,403,066
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	7,000,133	12/16/2014	12/16/2044	Interest Rate Swap			05618D-AN-4	BABSON CLO LTD-BABSON 2014-1A BR DRYDEN XXVI SR LN FD SR SEC'D NT CL A	1	7,000,000	7,000,133
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,899,700	7,870,172	12/16/2014	12/16/2044	Interest Rate Swap			26250U-AC-9	ALM XVII LTD-SR SECURED NOTE CLASS A2L	1	7,899,700	7,870,172
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,750,000	13,898,225	12/16/2014	12/16/2044	Interest Rate Swap			02014P-AC-8	CONNECT PLUS M25 LTD	1	13,750,000	13,898,225
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	250,000,000	27,572,721	30,333,591	12/16/2014	12/16/2044	Interest Rate Swap		2,760,870	979JXQ-11-5	SILVER STATE SOLAR SOUTH	2	27,572,721	27,572,721
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		33,659,053	33,733,610	12/16/2014	12/16/2044	Interest Rate Swap			U8270Y-ZZ-4	CENT CLO 16 LP NT CL A-2-R	1	33,659,053	33,733,610
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,000,000	14,005,390	12/16/2014	12/16/2044	Interest Rate Swap			15136G-AQ-2	TICP CLO 111 LTD-SR SEC'D NT CL A 144A	1	14,000,000	14,005,390
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		34,971,445	34,529,108	12/16/2014	12/16/2044	Interest Rate Swap			87247U-AC-7	OAKTREE EIF 11 SER A2 LTD-NT CL B 144A	1	34,971,445	34,529,108
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,778,986	19,589,916	12/16/2014	12/16/2044	Interest Rate Swap			67400L-AC-2	LDM LTD PARTNERSHIP-SERIES 13A CLASS BR	1	19,778,986	19,589,916
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,750,000	12,794,982	12/16/2014	12/16/2044	Interest Rate Swap			50184K-AU-2	ATRIUM XI LLC-SR SEC'D NT SERIES 11A CLASS B 144A	1	12,750,000	12,794,982
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,833,560	21,549,763	12/16/2014	12/16/2044	Interest Rate Swap			04964W-AC-9	ATRIUM XI LLC-SR SEC'D NOTE CLASS A-1 144A	1	21,833,560	21,549,763
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,492,974	20,222,325	12/16/2014	12/16/2044	Interest Rate Swap			04964W-AA-3	THL CR WIND RIV 2014-3 CLO-SR SEC'D NT CL B 144A	1	20,492,974	20,222,325
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,436,120	12,324,940	12/16/2014	12/16/2044	Interest Rate Swap			88432D-AC-8		1	12,436,120	12,324,940

S105.12

STATEMENT AS OF MARCH 31, 2017 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	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		12,581,698	12,351,568	12/16/2014	12/16/2044	Interest Rate Swap			05618L-AB-2	BABSON CLO LTD 2014-11 SR SEC ND CL B-1	1	12,581,698	12,351,568
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,271,096	12,113,354	12/16/2014	12/16/2044	Interest Rate Swap			82817R-AB-7	SILVER SPRING CLO LTD-SR SEC ND CL B-1 144A	1	12,271,096	12,113,354
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,060,562	13,054,873	12/16/2014	12/16/2044	Interest Rate Swap			87230A-AA-4	TCI-FLATIRON CLO 2016-1 LTD SR SEC ND CL A	1	13,060,562	13,054,873
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,690,000	14,690,000	12/16/2014	12/16/2044	Interest Rate Swap			81717E-AL-4	SENECA PARK CLO LTD-SPARK 2014-1A AR	1	14,690,000	14,690,000
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	13,500,000	12/16/2014	12/16/2044	Interest Rate Swap			38136F-AG-8	Goldentree Loan Managem-GLM 2017-1A B1	1	13,500,000	13,500,000
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,800,000	10,800,000	12/16/2014	12/16/2044	Interest Rate Swap			037640-AQ-5	APIDOS CLO-SERIES 13-15A CLASS A2AR	1	10,800,000	10,800,000
57629*CI9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,232,391	8,266,814	12/16/2014	12/16/2044	Interest Rate Swap			09628B-AA-6	BLUEMOUNTAIN CLO 2015-2 LTD SR SEC ND CL A-1	1	8,232,391	8,266,814
57629*CU3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	250,000,000	328,073,426	328,021,631	12/16/2014	12/16/2044	Interest Rate Swap		1,781,807	57542Z-AQ-7	RENTAL ASSET FIN LLC SR SEC ND REV NT	1	328,073,426	326,239,824
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	200,000,000	24,423,877	25,263,112	12/16/2014	12/16/2044	Interest Rate Swap		1,013,209	65531W-AA-8	NOMAD CLO LTD-SEC ND SER 2013-1A CL A-1 144A	1	24,423,877	24,249,903
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,609,661	23,306,524	12/16/2014	12/16/2044	Interest Rate Swap			09625J-AA-2	BLUEMOUNTAIN CLO 2013-3 LTD SR SEC ND CL A	1	23,609,661	23,306,524
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,009,081	10,999,021	12/16/2014	12/16/2044	Interest Rate Swap			04941G-AA-6	ATLAS SENIOR LOAN FUND L-SERIES 2013-1A CLASS A	1	11,009,081	10,999,021
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,850,000	5,905,136	12/16/2014	12/16/2044	Interest Rate Swap			55819T-AG-6	MADISON PARK FDG XX LTD-SEC DEF NT CL C-1 144A	1	5,850,000	5,905,136
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,220,000	22,428,957	12/16/2014	12/16/2044	Interest Rate Swap			83609J-AA-7	SOUND POINT CLO XI LTD-SR SEC ND CL A 144A	1	22,220,000	22,428,957
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,665,073	21,690,454	12/16/2014	12/16/2044	Interest Rate Swap			08180R-AA-3	BENEFIT STR PARTNERS CLO VII LTD SR SEC ND CL A-1A	1	21,665,073	21,690,454
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,648,411	21,661,516	12/16/2014	12/16/2044	Interest Rate Swap			55818Y-AC-5	MADISON PK FDG XVII LTD NT CL A-2	1	21,648,411	21,661,516
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,955,724	16,820,891	12/16/2014	12/16/2044	Interest Rate Swap			053633-AB-9	AVERY POINT III CLO LTD-SR SEC ND CL A	1	16,955,724	16,820,891
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		56,000,000	55,687,016	12/16/2014	12/16/2044	Interest Rate Swap			57542Z-AQ-7	RENTAL ASSET FIN LLC SR SEC ND ALM XII LTD-SR SECURED NOTE CLASS	1	56,000,000	55,687,016
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	18,049,342	7,516,133	02/05/2015	02/05/2045	Interest Rate Swap		(10,335,331)	00164M-AC-7	OH CR PARTNERS IX LTD SR SEC ND CL A-1	1	18,049,342	17,851,464
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		28,425,763	28,229,028	02/05/2015	02/05/2045	Interest Rate Swap			67105V-AC-8	MADISON PARK FUNDING LTD-SERIES 2015-16A CLASS A2R	1	28,425,763	28,229,028
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,740,000	12,741,236	02/05/2015	02/05/2045	Interest Rate Swap			55818X-AY-9	PINNACLE PARK CLO LTD-SERIES 2014-1A CLASS CR	1	12,740,000	12,741,236
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,100,000	6,105,996	02/05/2015	02/05/2045	Interest Rate Swap			72349B-AL-8	BLUEMOUNTAIN CLO LTD-BLUEM 2013-1A A2R	1	6,100,000	6,105,996
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,740,000	12,784,921	02/05/2015	02/05/2045	Interest Rate Swap			09626U-AN-8	PALMER SQUARE CLO LTD-SERIES 2014-14 CLASS A2R	1	12,740,000	12,784,921
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,600,000	10,620,744	02/05/2015	02/05/2045	Interest Rate Swap			69688X-AL-5	GALAXY X1X CLO LTD-SENIOR NOTE CL A-1A	1	10,600,000	10,620,744
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,328,083	22,068,169	02/05/2015	02/05/2045	Interest Rate Swap			36319Q-AA-0	SILVERMORE CLO LTD-SR SEC ND CL A-1 144A	1	22,328,083	22,068,169
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,617,344	15,368,280	02/05/2015	02/05/2045	Interest Rate Swap			82842B-AA-0	RRPF ENGINE LEASING LIMIT	2	15,617,344	15,368,280
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	11,460,085	02/05/2015	02/05/2045	Interest Rate Swap			67332F-AH-6	CARLYLE GLOBAL MKT CLO 2015-1 SR SEC NT CL A	1	13,000,000	11,460,085
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	15,278,970	4,740,233	02/05/2015	02/05/2045	Interest Rate Swap		(10,361,186)	14311D-AC-0	ALM LOAN FUNDING-ALM 2013-TRA A2R	1	15,278,970	15,101,419
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,250,000	4,287,689	02/05/2015	02/05/2045	Interest Rate Swap			00163K-AS-7	ARES CLO LTD-SERIES 2015 1-A CLASS A2R	1	4,250,000	4,287,689
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,600,000	9,662,976	02/05/2015	02/05/2045	Interest Rate Swap			00191Y-AM-6	GALAXY X1X CLO LTD-SENIOR NOTE CL A-1A	1	9,600,000	9,662,976
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,850,000	9,854,718	02/05/2015	02/05/2045	Interest Rate Swap			36319Q-AC-6	CARLYLE GLOBAL MKT CLO 2015-1 SR SEC NT CL B	1	9,850,000	9,854,718
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,580,000	9,582,510	02/05/2015	02/05/2045	Interest Rate Swap			14311D-AE-6		1	9,580,000	9,582,510

S105.13

STATEMENT AS OF MARCH 31, 2017 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		9,098,440	9,077,452	02/05/2015	02/05/2045	Interest Rate Swap			15135A-AC-7	CENT CDO 12 LTD DEF MEZZ NT CL C	1	9,098,440	9,077,452
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,254,943	9,151,528	02/05/2015	02/05/2045	Interest Rate Swap			096260-AE-7	BLUEMOUNTAIN CLO 2014-2 LTD SR SECD DEF NT CL C	1	9,254,943	9,151,528
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,266,667	9,100,646	02/05/2015	02/05/2045	Interest Rate Swap			33882W-AC-7	FLATIRON CLO 2011-1 LTD SENIOR NOTE CL B 144A	1	9,266,667	9,100,646
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,000,000	9,000,450	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	9,000,450
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,986,266	4,921,700	02/05/2015	02/05/2045	Interest Rate Swap			55817X-AC-8	MADISON PARK FDG V LTD-NT CL A-2 144A	1	4,986,266	4,921,700
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	13,236,224	02/05/2015	02/05/2045	Interest Rate Swap			47032B-AK-7	JAMES CAMPBELL CO LLC SR NT SER 2014-E	2	13,500,000	13,236,224
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	15,000,000	02/05/2015	02/05/2045	Interest Rate Swap			88432C-AS-5	WIND RIVER CLO LTD-WINDR 2014-1A B1R	1	15,000,000	15,000,000
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,674,356	1,586,306	02/05/2015	02/05/2045	Interest Rate Swap			78448B-AD-3	SLM STUDENT LOAN TRUST-SERIES 2013-5 CLASS B	1	1,674,356	1,586,306
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,428,961	6,424,561	02/05/2015	02/05/2045	Interest Rate Swap			55817X-AB-0	MADISON PARK FDG V LTD-NT CL A-1B 144A	1	6,428,961	6,424,561
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,000,000	2,037,261	02/05/2015	02/05/2045	Interest Rate Swap			65341K-AJ-5	NEXTGEAR FLOORPLAN MASTER	1	2,000,000	2,037,261
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,507,182	1,513,830	02/05/2015	02/05/2045	Interest Rate Swap			09628W-AG-7	BLUEMOUNTAIN CLO 2016-2 L	3	1,507,182	1,513,830
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,000,000	2,037,261	02/05/2015	02/05/2045	Interest Rate Swap			65341K-AJ-5	NEXTGEAR FLOORPLAN MASTER	1	2,000,000	2,037,261
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,500,000	1,468,404	02/05/2015	02/05/2045	Interest Rate Swap			61744C-NB-8	MORGAN STANLEY ABS CAPITA	1	1,500,000	1,468,404
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		710,717	749,966	02/05/2015	02/05/2045	Interest Rate Swap			36320D-AG-3	GALAXY XVII CLO, LTD.	1	710,717	749,966
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		735,031	750,392	02/05/2015	02/05/2045	Interest Rate Swap			74981H-AG-5	RACE POINT CLO, LIMITED	2	735,031	750,392
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		479,836	489,546	02/05/2015	02/05/2045	Interest Rate Swap			03764D-AE-1	APIDOS CLO XII	1	479,836	489,546
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		480,889	500,934	02/05/2015	02/05/2045	Interest Rate Swap			03765P-AG-8	APIDOS CLO XX	1	480,889	500,934
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		504,909	506,870	02/05/2015	02/05/2045	Interest Rate Swap			26244Y-AG-1	DRYDEN 42 SENIOR LOAN FUN	3	504,909	506,870
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		488,587	500,027	02/05/2015	02/05/2045	Interest Rate Swap			38123H-AJ-3	GOLDENTREE LOAN OPPORTUNI	1	488,587	500,027
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		470,090	479,398	02/05/2015	02/05/2045	Interest Rate Swap			06759Y-AG-0	BABSON CLO LTD/CAYMAN ISL	2	470,090	479,398
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,936,809	02/05/2015	02/05/2045	Interest Rate Swap			61744C-NB-8	MORGAN STANLEY ABS CAPITA	1	3,000,000	2,936,809
57629*CZ2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		954,959	965,064	02/05/2015	02/05/2045	Interest Rate Swap			658262-FX-3	NORTH CAROLINA ST ED ASST AVERY POINT II CLO LTD-SR SECD DEF NT CL C	1	954,959	965,064
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	9,000,000	(1,540,753)	02/05/2015	02/05/2045	Interest Rate Swap		(10,542,166)	053635-AG-3	CARLYLE GLOBAL MARKET ST-SERIES 2014-1A CLASS BR	1	9,000,000	9,001,413
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,019,580	02/05/2015	02/05/2045	Interest Rate Swap			14310M-AQ-0	AVERY POINT V CLO LTD SR SECD DEF NT CL C	1	10,000,000	10,019,580
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,234,384	9,001,881	02/05/2015	02/05/2045	Interest Rate Swap			05363X-AG-2	LOM XVI LTD PARTNERSHIP-SR DEF MEZZ NT CL C 144A	1	9,234,384	9,001,881
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,975,170	8,835,166	02/05/2015	02/05/2045	Interest Rate Swap			50181G-AG-5	CHA CREDIT PARTNERS LTD-SERIES 2012-7A CLASS B1R	1	8,975,170	8,835,166
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,800,000	12,840,883	02/05/2015	02/05/2045	Interest Rate Swap			67102Q-AK-4	AIMCO-SERIES 2014-AA CLASS C1	1	12,800,000	12,840,883
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,717,247	8,633,925	02/05/2015	02/05/2045	Interest Rate Swap			00900A-AC-2	KINGSLAND VI LTD-SR SECD NT CL A1 144A	1	8,717,247	8,633,925
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,908,670	21,500,409	02/05/2015	02/05/2045	Interest Rate Swap			49638W-AB-2	DENALI CAPITAL CLO X LTD-SR SECD DEF NT CL A3L	1	21,908,670	21,500,409
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,510,817	8,303,021	02/05/2015	02/05/2045	Interest Rate Swap			24823B-AE-0	HILLMARK FUNDING-SERIES 2006-1ACLASS A2	1	8,510,817	8,303,021
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,921,235	8,096,582	02/05/2015	02/05/2045	Interest Rate Swap			431640-AB-0		1	7,921,235	8,096,582

S105.14

STATEMENT AS OF MARCH 31, 2017 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*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,418,512	8,202,181	02/05/2015	02/05/2045	Interest Rate Swap			09626Y-AE-0	BLUEMOUNTAIN CLO 2013-2 LTD SR SEC	1	8,418,512	8,202,181
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,794,766	1,750,170	02/05/2015	02/05/2045	Interest Rate Swap			15015P-AB-1	DEF NT CL C CEDAR CREEK CLO LTD-SR SEC NT SER 2013-1A CL B	1	1,794,766	1,750,170
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,662,891	2,707,298	02/05/2015	02/05/2045	Interest Rate Swap			09627X-AG-6	BLUEMOUNTAIN CLO 2015-1 LTD-SR SEC DEF NT CL C	2	2,662,891	2,707,298
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,400,000	14,399,554	02/05/2015	02/05/2045	Interest Rate Swap			05617Y-AS-8	BABSON CLO LTD-BABSON 2013-11A A2R	1	14,400,000	14,399,554
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,847,578	7,768,254	02/05/2015	02/05/2045	Interest Rate Swap			83149F-AD-6	SLMA 2006 6 NT CL B	1	6,847,578	7,768,254
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,034,756	2,000,242	02/05/2015	02/05/2045	Interest Rate Swap			14954W-AA-4	CAVALRY CLO III LTD-SR SEC NT CL A	1	2,034,756	2,000,242
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,500,000	4,405,213	02/05/2015	02/05/2045	Interest Rate Swap			61744C-NB-8	MORGAN STANLEY ABS CAPITA	1	4,500,000	4,405,213
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	6,841,067	(3,850,908)	02/05/2015	02/05/2045	Interest Rate Swap		(10,697,291)	55951P-AR-8	MAGNETITE CLO LTD-MAGNE 2012-7A A2R	1	6,841,067	6,846,383
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,372,444	8,101,004	02/05/2015	02/05/2045	Interest Rate Swap			67108F-AC-0	OZLM FUNDING IV LTD-SR SEC NT CL A2 144A	1	8,372,444	8,101,004
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,129,303	8,002,240	02/05/2015	02/05/2045	Interest Rate Swap			39808F-AE-8	GREYWOLF CLO III LTD-SR SEC DEF NT CL B 144A	1	8,129,303	8,002,240
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,168,236	8,002,080	02/05/2015	02/05/2045	Interest Rate Swap			05618L-AD-8	BABSON CLO LTD 2014-II SR SEC NT CL C	1	8,168,236	8,002,080
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		26,247,469	25,977,822	02/05/2015	02/05/2045	Interest Rate Swap			67590B-AA-8	OCTAGON INV PARTNERS XVI LTD-SR SEC NT CL A	1	26,247,469	25,977,822
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,850,000	7,788,495	02/05/2015	02/05/2045	Interest Rate Swap			15136R-AE-5	CENT CLO 18 LP-NT SER 2013-18A CL B 144A	1	7,850,000	7,788,495
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		46,150,000	47,182,975	02/05/2015	02/05/2045	Interest Rate Swap			589433-G8-4	Meredith Corp. Senior Note Ser	3	46,150,000	47,182,975
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,462,366	7,467,217	02/05/2015	02/05/2045	Interest Rate Swap			36248M-AB-3	GT LOAN FINANCING LTD-SERIES 2013-1A CLASS B	1	7,462,366	7,467,217
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,041,663	2,576,410	02/05/2015	02/05/2045	Interest Rate Swap			27828T-AC-1	EATON VANCE CDO VIII LTD-2ND PRIORITY DEF NT CL B	1	2,041,663	2,576,410
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,872,966	2,000,970	02/05/2015	02/05/2045	Interest Rate Swap			38136A-AA-2	GOLDENTREE LOAN OPP III LTD-SR DEF NT CL D-1	1	1,872,966	2,000,970
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,800,000	3,799,647	02/05/2015	02/05/2045	Interest Rate Swap			88432C-AW-6	WIND RIVER CLO LTD-WINDR 2014-1A CR	1	3,800,000	3,799,647
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,014,145	12,377,600	02/05/2015	02/05/2045	Interest Rate Swap			24820R-AA-6	Statoil ASA-SENIOR UNSECURED NOTE	1	10,014,145	12,377,600
12518* NU0	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2	625,000,000	405,547,491	434,470,000	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index	8,380,862	11,573,125	912828-PX-2	US TREAS N/B-NOTE	1	397,166,629	422,896,875
12518* NU0	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2		231,796,900	261,458,274	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			76116F-AG-2	RFSCP PRINCIPAL STRIP	1	231,796,900	261,458,274
12518* NV8	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2	590,000,000	309,618,142	332,112,530	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index	7,972,601	10,925,030	912828-PX-2	US TREAS N/B-NOTE	1	301,645,541	321,187,500
12518* NV8	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2		295,910,937	333,776,520	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			76116F-AG-2	RFSCP PRINCIPAL STRIP	1	295,910,937	333,776,520
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1	500,000,000	26,493,910	28,856,817	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index	6,693,910	9,258,500	92927K-A*-3	WABCO Holdings Inc Senior Note Ser	2	19,800,000	19,598,317
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		36,353,712	36,753,930	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			184692-B8-9	Clearbridge Energy MLP F Senior Secured	1	36,353,712	36,753,930
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		36,450,000	36,262,501	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			48661E-B*-8	KAYNE ANDERSON MID/ENERGY-SR UNSEC SER D	1	36,450,000	36,262,501
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		36,000,000	36,475,632	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			Q3629F-AG-8	ETSA Utilities Finance P Gtd Senior Note	1	36,000,000	36,475,632
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		47,000,000	49,166,935	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			89148B-B*-1	Tortoise MLP Fund, Inc. Senior Note Ser	1	47,000,000	49,166,935
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		27,300,000	28,272,481	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			G9850E-AB-9	Yorkshire Water Services Gtd Senior Secu	1	27,300,000	28,272,481
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		28,250,000	28,296,613	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			G8228*-AG-7	Smith & Nephew plc Senior Note Ser	1	28,250,000	28,296,613
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		28,000,000	28,894,264	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			Q9194E-AF-4	Transpower New Zealand L Gtd Senior Note	1	28,000,000	28,894,264

S105.15

STATEMENT AS OF MARCH 31, 2017 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	Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		22,600,000	23,966,057	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			55068#-AK-5	Luxottica US Holdings Co Gtd Senior Note	1	22,600,000	23,966,057
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		25,000,000	28,319,525	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			085209-AA-1	BERMUDA GOVT USD SR NT	1	25,000,000	28,319,525
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		21,600,000	22,711,385	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			G2044#-AY-1	Compass Group PLC Senior Note Ser	1	21,600,000	22,711,385
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		11,125,715	13,751,514	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			24820R-AA-6	Statoil ASA-SENIOR UNSECURED NOTE	1	11,125,715	13,751,514
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		20,000,000	21,352,000	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			731068-AA-1	Polaris Industries Inc. Senior Note Ser	1	20,000,000	21,352,000
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		17,550,000	18,337,293	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			12656*-AC-6	CSLB Holdings, Inc. Gtd Senior Note	1	17,550,000	18,337,293
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		15,800,000	16,425,332	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			12656*-AB-8	CSLB Holdings, Inc. Gtd Senior Note	1	15,800,000	16,425,332
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		9,464,993	9,720,510	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			184690-AA-7	Clearbridge Energy MLP TR Fd Inc-Senior Secured	1	9,464,993	9,720,510
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		12,015,385	12,180,452	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			48660P-DE-0	KAYNE ANDERSON ENERGY TR FD-SR UNSEC SER K	1	12,015,385	12,180,452
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		15,900,000	16,441,967	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			74986#-AM-3	PRREF America REIT II, I Senior Note Ser	1	15,900,000	16,441,967
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		5,355,000	5,541,981	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			48661E-AA-5	KAYNE ANDERSON MID/ENERGY-SR UNSEC SER C	1	5,355,000	5,541,981
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		12,700,000	12,890,030	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			486606-K#-4	KAYNE ANDERSON MLP INVT CO-SR UNSEC SER JJ	1	12,700,000	12,890,030
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		11,500,000	12,027,954	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			21867*-AA-6	Core Laboratories U.S. I Senior Note Ser	2	11,500,000	12,027,954
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		11,400,000	11,979,827	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			21867*-AB-4	Core Laboratories U.S. I Senior Note Ser	2	11,400,000	11,979,827
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		10,750,000	10,979,814	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			003009-AA-6	Aberdeen Asia-Pacific In Senior Secured	1	10,750,000	10,979,814
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		12,000,000	12,523,212	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			941848-C#-0	Waters Corporation Gtd Senior Note	2	12,000,000	12,523,212
12518* NI6	Credit Default Indices (CDIG527/CDX.NA.IG.27)	1		8,900,000	9,228,811	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			56081#-AL-4	Major League Baseball Tr Senior Note Ser	1	8,900,000	9,228,811
12518* NX4	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2	450,000,000	330,267,365	353,448,619	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index	6,149,231	8,332,650	912828-PX-2	US TREASURY N/B Note	1	324,118,134	345,115,969
12518* NX4	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2		72,333,785	81,589,816	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			76116F-AG-2	Resolution Funding Corp Principal Strip	1	72,333,785	81,589,816
12518* NX4	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2		87,013,333	109,828,930	09/20/2016	12/20/2021	5 Yr Credit Default Swap Index			912810-QK-7	US Treasury 3.875% DUE 8/15/2040	1	87,013,333	109,828,930
12518* NY2	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2	100,000,000	129,688,587	163,704,860	12/20/2016	12/20/2021	5 Yr Credit Default Swap Index	1,458,411	1,851,700	912810-QK-7	US Treasury 3.875% DUE 8/15/2040	1	128,230,176	161,853,160
Filed with the SVO and awaiting RSAT	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2		50,000,000	64,832,080	12/20/2016	12/20/2021	5 Yr Credit Default Swap Index	716,992	925,850	912810-QK-7	US Treasury 3.875% DUE 8/15/2040	1	64,115,088	80,926,580
Filed with the SVO and awaiting RSAT	Credit Default Indices (CDIG527/CDX.NA.IG.27)	2		50,000,000	64,817,324	12/20/2016	12/20/2021	5 Yr Credit Default Swap Index	702,236	925,850	912810-QK-7	US Treasury 3.875% DUE 8/15/2040	1	64,115,088	80,926,580
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	19,850,000	18,172,164	12/05/2016	12/05/2046	Interest Rate Swap		(2,028,076)	MXP001-TT-1	US TREASURY N/B Note	1	19,850,000	20,200,240
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		28,410,000	29,317,935	12/05/2016	12/05/2046	Interest Rate Swap			78449F-AC-5	SMB PRIVATE ED LN TR 201-SMB PRIVATE ED LN TR 2016-A NT	1	28,410,000	29,317,935
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,420,000	23,032,553	12/05/2016	12/05/2046	Interest Rate Swap			63940F-AC-1	NAVIENT STUDENT LOAN TRU-SERIES 16-2 CLASS A3	1	22,420,000	23,032,553
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,737,551	15,727,329	12/05/2016	12/05/2046	Interest Rate Swap			26827X-AA-1	EMC GROUP STUDENT LOAN -SERIES 2016-1A CLASS A	1	15,737,551	15,727,329
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,250,000	13,250,663	12/05/2016	12/05/2046	Interest Rate Swap			05618L-AG-1	BABSON CLO LTD-BABSON 2014-11A BR	1	13,250,000	13,250,663
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,500,000	11,500,000	12/05/2016	12/05/2046	Interest Rate Swap			92916M-AB-7	VOYA CLO LTD-VOYA 2017-1A A2	1	11,500,000	11,500,000
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,000,000	11,000,355	12/05/2016	12/05/2046	Interest Rate Swap			05618L-AF-3	BABSON CLO LTD-BABSON 2014-11A AR	1	11,000,000	11,000,355
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,100,000	5,104,850	12/05/2016	12/05/2046	Interest Rate Swap			033290-AN-7	ANCHORAGE CAPITAL CLO LT-ANCHC 2012-1A A2R	1	5,100,000	5,104,850

S105.16

STATEMENT AS OF MARCH 31, 2017 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
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	10,917,500	9,109,081	12/05/2016	12/05/2046	Interest Rate Swap	(2,001,051)		MXP001-TT-1	Grupo Aeromexico, S.A.B. De C.V. Floating Rate Senior Secured Term Loan	1	10,917,500	11,110,132
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,127,273	14,549,310	12/05/2016	12/05/2046	Interest Rate Swap			78442G-PQ-3	SLM STUDENT LOAN TRUST-SERIES 2005-5 CLASS A4	1	14,127,273	14,549,310
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,375,251	10,915,846	12/05/2016	12/05/2046	Interest Rate Swap			49327H-AG-0	KEYCORP STUDENT LOAN TRU-SERIES 2006-A CLASS 244	1	10,375,251	10,915,846
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,239,901	11,453,342	12/05/2016	12/05/2046	Interest Rate Swap			64031Q-BR-1	NELNET STUDENT LOAN TRUS-SERIES 2005-1 CLASS A5	1	11,239,901	11,453,342
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,871,798	12,191,696	12/05/2016	12/05/2046	Interest Rate Swap			78448Q-AD-0	SMB PRIVATE EDUCATION LO-SMB 2015-B A3	1	11,871,798	12,191,696
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,488,661	10,951,371	12/05/2016	12/05/2046	Interest Rate Swap			78442G-RX-6	SLM STUDENT LN TR 2006-2 LN BKD NT CL A-6	1	10,488,661	10,951,371
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,942,962	5,999,615	12/05/2016	12/05/2046	Interest Rate Swap			78442G-EX-0	SLM STUDENT LOAN TRUST-SERIES 2002-7CLASS A11	1	5,942,962	5,999,615
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,619,843	10,704,391	12/05/2016	12/05/2046	Interest Rate Swap			10620N-AX-6	BRAZOS HIGHER EDUCATION -SER 2006-2 STUDENT LN REV NT	1	10,619,843	10,704,391
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,358,772	9,625,533	12/05/2016	12/05/2046	Interest Rate Swap			64031Q-BX-8	NELNET STUDENT LOAN TRUS-SERIES 2005-2 CLASS A5	1	9,358,772	9,625,533
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,632,265	9,813,200	12/05/2016	12/05/2046	Interest Rate Swap			83715R-AF-9	SOUTH CAROLINA STUDENT L-SERIES 14-1 CLASS A2	1	9,632,265	9,813,200
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,307,113	7,396,435	12/05/2016	12/05/2046	Interest Rate Swap			00432C-AV-3	ACCESS GROUP INC-SERIES 2003-A CLASS A3	1	7,307,113	7,396,435
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,999,525	12/05/2016	12/05/2046	Interest Rate Swap			88322U-AN-9	THACHER PARK CLO-THRPK 2014-1A CR	1	5,000,000	4,999,525
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,583,479	7,692,927	12/05/2016	12/05/2046	Interest Rate Swap			640315-AF-4	NELNET STUDENT LOAN TRUS-SERIES 2006-2 CLASS A6	1	7,583,479	7,692,927
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,375,221	1,368,207	12/05/2016	12/05/2046	Interest Rate Swap			77277L-A7-2	ROCKALL CLO BV	1	1,375,221	1,368,207
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	3,970,000	1,684,970	12/05/2016	12/05/2046	Interest Rate Swap	(2,355,078)		MXP001-TT-1	Grupo Aeromexico, S.A.B. De C.V. Floating Rate Senior Secured Term Loan	1	3,970,000	4,040,048
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		65,300,000	66,161,588	12/05/2016	12/05/2046	Interest Rate Swap			63940L-AC-8	2016-6A CLASS A3	1	65,300,000	66,161,588
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,689,895	22,832,541	12/05/2016	12/05/2046	Interest Rate Swap			61205P-AL-3	MONTANA HIGHER EDUCATION-SERIES 12-1 CLASS A3	1	22,689,895	22,832,541
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,123,976	18,273,780	12/05/2016	12/05/2046	Interest Rate Swap			784419-AF-0	SLC STUDENT LOAN TRUST-SERIES 2006-A CLASS B	1	17,123,976	18,273,780
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,017,905	1,044,933	12/05/2016	12/05/2046	Interest Rate Swap			78442G-EW-2	SLM STUDENT LOAN TRUST-SERIES 2002-7 CLASS A10	1	1,017,905	1,044,933
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,772,360	1,679,130	12/05/2016	12/05/2046	Interest Rate Swap			429827-AK-4	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A10	1	1,772,360	1,679,130
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,358,158	1,424,466	12/05/2016	12/05/2046	Interest Rate Swap			784419-AE-3	SLC STUDENT LOAN TRUST-SERIES 2006-A CLASS A5	1	1,358,158	1,424,466
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,148,157	1,133,030	12/05/2016	12/05/2046	Interest Rate Swap			429827-AP-3	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A14	1	1,148,157	1,133,030
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,054,464	1,040,832	12/05/2016	12/05/2046	Interest Rate Swap			429827-AB-4	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A2	1	1,054,464	1,040,832
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,836,058	1,872,206	12/05/2016	12/05/2046	Interest Rate Swap			83715A-AJ-8	SOUTH CAROLINA STUDENT L-SR UNSECURED	1	1,836,058	1,872,206
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,608,679	1,676,940	12/05/2016	12/05/2046	Interest Rate Swap			784427-AF-3	SLC STUDENT LN TR 2006-1 ASSET BK NT CL A-6	1	1,608,679	1,676,940
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,653,355	1,561,050	12/05/2016	12/05/2046	Interest Rate Swap			640330-AC-3	NELNET STUDENT LOAN TRUS-SERIES 2015-2A CLASS B	1	1,653,355	1,561,050
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,844,324	1,858,788	12/05/2016	12/05/2046	Interest Rate Swap			462590-JT-8	IOWA STUDENT LOAN LIQUID-SERIES 2012-1 CLASS B	1	1,844,324	1,858,788
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,512,506	1,471,272	12/05/2016	12/05/2046	Interest Rate Swap			709163-GJ-2	PENNSYLVANIA ST HGR EDU -SERIES 2006 CL B	1	1,512,506	1,471,272
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,322,680	1,404,254	12/05/2016	12/05/2046	Interest Rate Swap			17284L-AB-0	CIT EDUCATION LOAN TRUST-SERIES 2007-1 CLASS B	1	1,322,680	1,404,254
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,325,434	1,307,096	12/05/2016	12/05/2046	Interest Rate Swap			78448C-AH-2	SLM STUDENT LOAN TRUST-SERIES 2013-6 CLASS B	1	1,325,434	1,307,096

S105.17

STATEMENT AS OF MARCH 31, 2017 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
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	14,887,500	12,797,805	12/05/2016	12/05/2046	Interest Rate Swap		(2,352,375)	MXP001-TT-1	Grupo Aeromexico, S.A.B. De C.V. Floating Rate Senior Secured Term Loan	1	14,887,500	15,150,180
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,193,111	6,639,691	12/05/2016	12/05/2046	Interest Rate Swap			78448R-AD-8	SMB PRIVATE ED LN TR 2015-C LN BCK NT CL A-3	1	6,193,111	6,639,691
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,394,737	5,717,434	12/05/2016	12/05/2046	Interest Rate Swap			78448P-AD-2	SMB PRIVATE ED LOAN TR 2015-A LN BACKED NT A-3	1	5,394,737	5,717,434
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,342,088	4,214,760	12/05/2016	12/05/2046	Interest Rate Swap			69847R-AB-8	PANHANDLE-PLAINS TX STUD-SERIES 2001-1 CLASS A2	1	4,342,088	4,214,760
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,813,962	4,744,506	12/05/2016	12/05/2046	Interest Rate Swap			19458L-BH-2	COLLEGIATE FUNDING SERVI-SERIES 2005-B CLASS A4	1	4,813,962	4,744,506
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,679,669	4,839,836	12/05/2016	12/05/2046	Interest Rate Swap			78446D-AC-3	SLM STUDENT LOAN TRUST-SERIES 2011-A CLASS A3	1	4,679,669	4,839,836
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,739,462	3,778,394	12/05/2016	12/05/2046	Interest Rate Swap			63938E-AD-6	NAVIENT STUDENT LOAN TRU-SERIES 2014-1 CLASS A4	1	3,739,462	3,778,394
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,690,172	1,695,308	12/05/2016	12/05/2046	Interest Rate Swap			00432C-CF-6	ACCESS GROUP INC DEL 2005-1 ASSET BKD CTF CL A-3	1	1,690,172	1,695,308
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,001,031	15,884,878	12/05/2016	12/05/2046	Interest Rate Swap			840555-DA-1	SOUTH TX HIGHER ED AUTH REV SER 1 CL A-3	1	16,001,031	15,884,878
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,163,589	13,256,244	12/05/2016	12/05/2046	Interest Rate Swap			00432C-CW-9	ACCESS GROUP INC-SERIES 2005-B CLASS A3	1	13,163,589	13,256,244
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,744,246	10,624,413	12/05/2016	12/05/2046	Interest Rate Swap			28148W-AC-7	EDUCATIONAL FUNDING OF T-SERIES 2011-1 CLASS B	1	9,744,246	10,624,413
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,042,650	9,125,349	12/05/2016	12/05/2046	Interest Rate Swap			78444C-AE-3	SLM STUDENT LOAN TRUST-SERIES 07-6 CLASS A5	1	9,042,650	9,125,349
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,405,308	8,934,293	12/05/2016	12/05/2046	Interest Rate Swap			78443F-AF-4	SLM STUDENT LOAN TRUST-SERIES 2007-5 CLASS A6	1	8,405,308	8,934,293
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,043,201	8,281,808	12/05/2016	12/05/2046	Interest Rate Swap			00400V-AB-3	ACADEMIC LOAN FUNDING TR-ALFT 2012-1A A2	1	8,043,201	8,281,808
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		925,992	1,052,028	12/05/2016	12/05/2046	Interest Rate Swap			462592-AD-8	10VA STUDENT LOAN LIQUID-SERIES 2005-1 CLASS B	1	925,992	1,052,028
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,066,624	1,065,097	12/05/2016	12/05/2046	Interest Rate Swap			78442G-OA-7	SLM STUDENT LOAN TRUST-SERIES 2005-6 CLASS B	1	1,066,624	1,065,097
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,613	1,652	12/05/2016	12/05/2046	Interest Rate Swap			38021F-AB-7	GOAL CAPITAL FUNDING TRU-SERIES 2015-1 CLASS B	1	1,613	1,652
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,632,590	1,635,199	12/05/2016	12/05/2046	Interest Rate Swap			28138J-AB-0	EDUCATIONAL SERVICES OF -SERIES 15-2 CLASS B	1	1,632,590	1,635,199
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,487,380	1,499,797	12/05/2016	12/05/2046	Interest Rate Swap			78442G-GM-2	SLM STUDENT LOAN TRUST 2003-4 LN BKD CTF CL B	1	1,487,380	1,499,797
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,325,332	1,356,003	12/05/2016	12/05/2046	Interest Rate Swap			28090A-AB-5	EDUCATIONAL SERVICES OF -2014-4 SERIES B	1	1,325,332	1,356,003
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,151,491	1,166,544	12/05/2016	12/05/2046	Interest Rate Swap			83401L-AA-2	SOCIAL PROFESSIONAL LOAN-SERIES 2015-A CLASS A1	1	1,151,491	1,166,544
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,640,000	2,640,195	12/05/2016	12/05/2046	Interest Rate Swap			00191D-AN-0	ARES CLO LTD-SERIES 2012-3A CLASS CR	1	2,640,000	2,640,195
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,131,637	1,113,950	12/05/2016	12/05/2046	Interest Rate Swap			39808F-AE-8	GREYWOLF CLO III LTD-SR SEC DEF NT CL B 144A	1	1,131,637	1,113,950
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,808,895	1,750,949	12/05/2016	12/05/2046	Interest Rate Swap			49638W-AE-6	KINGSLAND LTD-SERIES 2013-6A CLASS C	1	1,808,895	1,750,949
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		900,000	901,017	12/05/2016	12/05/2046	Interest Rate Swap			006897-AE-2	ADIRONDACK PARK CLO LTD-SERIES 2013-1A CLASS B	1	900,000	901,017
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,005,247	1,001,974	12/05/2016	12/05/2046	Interest Rate Swap			74981H-AE-0	RACE POINT CLO LTD-RACEP 2015-9A B	1	1,005,247	1,001,974
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	7,454,337	3,449,566	12/06/2016	12/06/2046	Interest Rate Swap		(3,703,184)	281397-AP-4	EDUCATION LOAN ASSET-BAC-SERIES 2003-2 CLASS 2A1	1	7,454,337	7,152,750
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,925,000	10,100,120	12/05/2016	12/05/2046	Interest Rate Swap			MXP001-TT-1	Grupo Aeromexico, S.A.B. De C.V. Floating Rate Senior Secured Term Loan	1	9,925,000	10,100,120
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,742,882	6,760,589	12/06/2016	12/06/2046	Interest Rate Swap			66705R-AA-7	NORTHSTAR EDUCATION FINA-NEF 2016-1 A	1	6,742,882	6,760,589
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,565,442	6,724,222	12/06/2016	12/06/2046	Interest Rate Swap			281397-AB-5	EDUCATION LOAN ASSET-BAC-SERIES 2003-1 CLASS A2	1	6,565,442	6,724,222

S105.18



STATEMENT AS OF MARCH 31, 2017 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
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,028,742	5,095,670	12/06/2016	12/06/2046	Interest Rate Swap			64031Q-CK-5	NELNET STUDENT LOAN TRUS-SERIES 2005-4 CLASS A4R1	1	5,028,742	5,095,670
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,667,993	4,805,299	12/06/2016	12/06/2046	Interest Rate Swap			78443G-AG-0	SLM STUDENT LOAN TRUST-SERIES 2006-7 CLASS A6B	1	4,667,993	4,805,299
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,986,441	4,638,918	12/06/2016	12/06/2046	Interest Rate Swap			106238-LJ-5	BRAZOS TX HGR EDU AUTH REVENUE BOND	1	3,986,441	4,638,918
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,279,112	5,754,467	12/06/2016	12/06/2046	Interest Rate Swap			28108Q-AB-0	EDLINC STUDENT LOAN FUND-SERIES 2012-1 CLASS B	1	5,279,112	5,754,467
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,318,481	4,210,303	12/06/2016	12/06/2046	Interest Rate Swap			281397-AQ-2	EDUCATION LOAN ASSET-BAC-SERIES 2003-2 CLASS 2A2	1	4,318,481	4,210,303
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,835,579	3,957,316	12/06/2016	12/06/2046	Interest Rate Swap			38021E-AA-2	GOAL CAPITAL FUNDING TR 2010-1 STUDENT LN BKD NT	1	3,835,579	3,957,316
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,603,519	3,751,044	12/06/2016	12/06/2046	Interest Rate Swap			64031Q-CM-1	NELNET STUDENT LOAN TRUS-SERIES 2005-4 CLASS A4R2	1	3,603,519	3,751,044
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,679,765	3,776,364	12/06/2016	12/06/2046	Interest Rate Swap			658262-GD-6	NORTH CAROLINA STATE EDU-SERIES 2011-2 CLASS A3	1	3,679,765	3,776,364
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,858,108	1,920,430	12/06/2016	12/06/2046	Interest Rate Swap			78442G-KW-5	SLM STUDENT LOAN TRUST-SERIES 2004-1 CLASS A6	1	1,858,108	1,920,430
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,157,746	15,600,939	12/06/2016	12/06/2046	Interest Rate Swap			83149E-AG-2	SLM STUDENT LN TR 2006-5-NOTE CL B	1	15,157,746	15,600,939
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,584,142	9,448,275	12/06/2016	12/06/2046	Interest Rate Swap			784419-AG-8	SLC STUDENT LOAN TRUST-SERIES 2006-A CLASS C	1	9,584,142	9,448,275
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,560,673	8,913,293	12/06/2016	12/06/2046	Interest Rate Swap			23341K-AA-3	DRB PRIME STUDENT LOAN T-SERIES 2015-D CLASS A1	1	8,560,673	8,913,293
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,568,099	7,996,882	12/06/2016	12/06/2046	Interest Rate Swap			64031C-AB-8	NELNET STUDENT LOAN TRUS-SERIES 2012-2A CLASS B	1	8,568,099	7,996,882
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,673,810	15,869,863	12/06/2016	12/06/2046	Interest Rate Swap			78442G-PS-9	SLM STUDENT LOAN TRUST-SERIES 2005-5 CLASS B	1	15,673,810	15,869,863
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,900,000	3,913,623	12/06/2016	12/06/2046	Interest Rate Swap			87244A-BC-3	WIND RIVER CLO LTD-SERIES 12-1A CLASS BR	1	3,900,000	3,913,623
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	10,917,500	7,704,242	12/06/2016	12/06/2046	Interest Rate Swap	(3,405,890)		MXP001-TT-1	Grupo Aeromexico, S.A.B. De C.V. Floating Rate Senior Secured Term Loan	1	10,917,500	11,110,132
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,207,157	9,445,013	12/05/2016	12/05/2046	Interest Rate Swap			83715R-AG-7	SOUTH CAROLINA STUDENT L-SERIES 2014-1 CLASS B	1	9,207,157	9,445,013
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,831,945	7,666,570	12/06/2016	12/06/2046	Interest Rate Swap			78442Q-AE-1	SLC STUDENT LOAN TRUST-SERIES 2005-1 CLASS B	1	6,831,945	7,666,570
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,413,120	6,723,153	12/06/2016	12/06/2046	Interest Rate Swap			78442G-OT-6	SLM STUDENT LOAN TRUST-SERIES 2005-8 CLASS B	1	6,413,120	6,723,153
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,185,787	6,529,797	12/06/2016	12/06/2046	Interest Rate Swap			78442G-PD-2	SLM STUDENT LOAN TRUST-SERIES 2005-3 CLASS B	1	6,185,787	6,529,797
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,772,256	6,535,776	12/06/2016	12/06/2046	Interest Rate Swap			493268-AU-0	KEYCORP STUDENT LOAN TRU-SERIES 1999-B CLASS CTF5	1	5,772,256	6,535,776
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,508,060	6,587,684	12/06/2016	12/06/2046	Interest Rate Swap			78446C-AB-7	SLM STUDENT LOAN TRUST-SERIES 2013-2 CLASS B	1	6,508,060	6,587,684
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,955,000	6,478,820	12/06/2016	12/06/2046	Interest Rate Swap			63938E-AE-4	NAVIENT STUDENT LOAN TRU-SERIES 2014-1 CLASS B	1	6,955,000	6,478,820
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,014,662	5,556,235	12/06/2016	12/06/2046	Interest Rate Swap			64031A-AJ-5	NELNET STUDENT LOAN TRUS-SERIES 2006-3 CLASS B	1	6,014,662	5,556,235
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,047,736	6,013,958	12/06/2016	12/06/2046	Interest Rate Swap			63939L-AC-1	NAVIENT STUDENT LOAN TRU-SERIES 2015-3 CLASS B	1	6,047,736	6,013,958
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,397,944	6,444,252	12/06/2016	12/06/2046	Interest Rate Swap			78447M-AD-0	SLM STUDENT LOAN TRUST-SERIES 2013-1 CLASS B	1	6,397,944	6,444,252
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,264,839	5,125,726	12/06/2016	12/06/2046	Interest Rate Swap			64033J-AB-1	NELNET STUDENT LOAN TRUS-SERIES 2014-1A CLASS B	1	5,264,839	5,125,726
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,445,619	4,500,243	12/06/2016	12/06/2046	Interest Rate Swap			194266-AE-2	COLLEGE LOAN CORPORATION-SERIES 2005-2 CLASS B	1	4,445,619	4,500,243
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,410,559	4,112,797	12/06/2016	12/06/2046	Interest Rate Swap			64033N-AB-2	NELNET STUDENT LOAN TRUS-SERIES 2014-5A CLASS B	1	4,410,559	4,112,797
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,589,845	3,591,194	12/06/2016	12/06/2046	Interest Rate Swap			194262-CF-6	COLLEGE LOAN CORPORATION-SERIES 2004-1 CLASS B	1	3,589,845	3,591,194
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,171,613	3,322,177	12/06/2016	12/06/2046	Interest Rate Swap			78442G-LJ-3	SLM STUDENT LOAN TRUST-SERIES 2004-3 CLASS B	1	3,171,613	3,322,177

S105.19

STATEMENT AS OF MARCH 31, 2017 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
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,650,000	3,133,708	12/06/2016	12/06/2046	Interest Rate Swap			64032A-AB-1	NELNET STUDENT LOAN TRUS-SERIES 2012-1A CLASS B	1	3,650,000	3,133,708
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,951,991	3,241,252	12/06/2016	12/06/2046	Interest Rate Swap			64032F-AH-7	NELNET STUDENT LOAN TRUS-SERIES 2007-2A CLASS A4A2	1	2,951,991	3,241,252
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,114,924	2,892,413	12/06/2016	12/06/2046	Interest Rate Swap			64033L-AD-2	NELNET STUDENT LOAN TRUS-SERIES 2014-2A CLASS B	1	3,114,924	2,892,413
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,240,000	2,805,376	12/06/2016	12/06/2046	Interest Rate Swap			64033K-AB-8	NELNET STUDENT LOAN TRUS-SERIES 2014-3A CLASS B	1	3,240,000	2,805,376
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,400,000	14,399,842	12/06/2016	12/06/2046	Interest Rate Swap			04015B-AL-4	ARES CLO LTD-ARES 2014-31A A2R	1	14,400,000	14,399,842
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,500,000	2,518,823	12/06/2016	12/06/2046	Interest Rate Swap			94949L-AE-0	WELLFLEET CLO LTD-WELF 2016-2A B	1	2,500,000	2,518,823
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	10,000,000	6,204,243	12/06/2016	12/06/2046	Interest Rate Swap		(3,797,777)	04964H-AN-8	ATRIDIUM CDO CORP-SERIES 8A CLASS BR	1	10,000,000	10,002,020
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,970,000	4,040,048	12/05/2016	12/05/2046	Interest Rate Swap			MXP001-TT-1	Grupo Aeromexico, S.A.B. De C.V. Floating Rate Senior Secured Term Loan	1	3,970,000	4,040,048
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,065,460	12/06/2016	12/06/2046	Interest Rate Swap			87246M-AB-8	TICP CLO LTD-SERIES 2016-6A CLASS B	1	10,000,000	10,065,460
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,065,180	12/06/2016	12/06/2046	Interest Rate Swap			04941T-AE-0	ATLAS SENIOR LOAN FUND L-ATCLO 2016-7A B1	1	10,000,000	10,065,180
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,035,260	12/06/2016	12/06/2046	Interest Rate Swap			14309Y-AQ-7	CARLYLE GLOBAL MARKET ST-SERIES 2012-4A CLASS BR	1	10,000,000	10,035,260
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	10,000,610	12/06/2016	12/06/2046	Interest Rate Swap			03764X-AJ-6	APIDOS CLO-SERIES 2014-17A CLASS A2R	1	10,000,000	10,000,610
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	7,526,175	12/06/2016	12/06/2046	Interest Rate Swap			06759Y-AC-9	BARINGS CLO LTD-BABS 2016-3A A2	1	7,500,000	7,526,175
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,370,000	7,425,975	12/06/2016	12/06/2046	Interest Rate Swap			81789G-AC-5	SEVEN STICKS CLO LTD-SR SEC'D NT CL A-2 144A	1	7,370,000	7,425,975
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,180,000	7,180,675	12/06/2016	12/06/2046	Interest Rate Swap			00191D-AM-2	ARES CLO LTD-SERIES 12-3A CLASS BR	1	7,180,000	7,180,675
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,001,152	2,001,692	12/06/2016	12/06/2046	Interest Rate Swap			00163E-AM-4	ALM VI LTD-SR SECURED NOTE CLASS A2R	1	2,001,152	2,001,692
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,509,164	2,504,405	12/06/2016	12/06/2046	Interest Rate Swap			04015G-AC-3	ARES CLO LTD-SERIES 15-2A CLASS B	1	2,509,164	2,504,405
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,139,056	3,040,142	12/06/2016	12/06/2046	Interest Rate Swap			78448A-AD-5	SLM STUDENT LOAN TRUST-SERIES 2013-4 CLASS B	2	3,139,056	3,040,142
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,001,248	2,000,854	12/06/2016	12/06/2046	Interest Rate Swap			56841B-BD-2	MARINE PARK CLO LTD-SR SEC'D DEF NT CL B-R 144A	1	2,001,248	2,000,854
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,813,900	2,855,542	12/06/2016	12/06/2046	Interest Rate Swap			38021B-AG-5	GOAL CAPITAL FUNDING TRU-SERIES 2006-1 CLASS B	1	2,813,900	2,855,542
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,048,678	2,221,979	12/06/2016	12/06/2046	Interest Rate Swap			00432C-DE-8	ACCESS GROUP INC-SERIES 2006-1 CLASS B	1	2,048,678	2,221,979
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,438,403	2,462,565	12/06/2016	12/06/2046	Interest Rate Swap			78442G-KN-5	SLM STUDENT LOAN TRUST-SERIES 2003-14 CLASS A6	1	2,438,403	2,462,565
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,050,299	2,007,645	12/06/2016	12/06/2046	Interest Rate Swap			49326B-BW-5	KEYCORP STUDENT LOAN TRU-SERIES 2004-A CLASS 1B	1	2,050,299	2,007,645
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,952,632	1,975,966	12/06/2016	12/06/2046	Interest Rate Swap			429827-AR-9	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B1	1	1,952,632	1,975,966
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,986,171	1,976,462	12/06/2016	12/06/2046	Interest Rate Swap			429827-AS-7	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B2	1	1,986,171	1,976,462
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,897,121	1,940,444	12/06/2016	12/06/2046	Interest Rate Swap			64033T-AB-9	NELNET STUDENT LOAN TRUS-SERIES 2015-3A CLASS B	1	1,897,121	1,940,444
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,857,550	1,826,027	12/06/2016	12/06/2046	Interest Rate Swap			19458L-BD-1	COLLEGIATE FUNDING SERVI-SERIES 2005-A CLASS B	1	1,857,550	1,826,027
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,839,459	1,935,695	12/06/2016	12/06/2046	Interest Rate Swap			00435T-AB-7	ACCESS GROUP INC-SERIES 2015-1 CLASS B	1	1,839,459	1,935,695
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,172,243	3,177,789	12/06/2016	12/06/2046	Interest Rate Swap			78442G-RY-4	SLM STUDENT LOAN TRUST-SERIES 2006-2 CLASS B	1	3,172,243	3,177,789
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,113,391	3,048,742	12/06/2016	12/06/2046	Interest Rate Swap			19426T-AM-2	COLLEGE LOAN CORPORATION-SERIES 2007-1 CLASS B2	1	3,113,391	3,048,742
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,847,400	2,727,509	12/06/2016	12/06/2046	Interest Rate Swap			92978J-AH-6	WACHOVIA STUDENT LOAN TR-SERIES 2006-1 CLASS B	1	2,847,400	2,727,509

S105.20

STATEMENT AS OF MARCH 31, 2017 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
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,604,208	2,727,757	12/06/2016	12/06/2046	Interest Rate Swap			83715R-AH-5	SOUTH CAROLINA STUDENT L-SERIES 15- A CLASS A	1	2,604,208	2,727,757
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,439,140	2,393,117	12/06/2016	12/06/2046	Interest Rate Swap			28137T-AB-9	EDUCATIONAL SERVICES OF -SERIES 2014-2 CLASS B	1	2,439,140	2,393,117
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,209,449	2,179,701	12/06/2016	12/06/2046	Interest Rate Swap			78443B-AK-2	SLM STUDENT LOAN TRUST-SERIES 2006- 10 CLASS B	1	2,209,449	2,179,701
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,352,631	2,270,440	12/06/2016	12/06/2046	Interest Rate Swap			69340Q-AB-2	PENNSYLVANIA HIGHER EDUC-SERIES 2015-1A CLASS B	1	2,352,631	2,270,440
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,116,887	2,226,351	12/06/2016	12/06/2046	Interest Rate Swap			28137B-AB-5	EDUCATIONAL SERVICES OF -SERIES 2015-1 CLASS B	1	2,116,887	2,226,351
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,127,655	2,262,433	12/06/2016	12/06/2046	Interest Rate Swap			00432C-AR-2	ACCESS GROUP-STUDENT LN REVENUE NT	1	2,127,655	2,262,433
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,204,165	2,204,833	12/06/2016	12/06/2046	Interest Rate Swap			63939D-AD-7	NAVIENT STUDENT LOAN TRUST 2014-8 CL B	1	2,204,165	2,204,833
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	3,943,088	212,608	12/06/2016	12/06/2046	Interest Rate Swap		(3,792,372)	09627L-AJ-6	BLUEMOUNTAIN CLO 2014-1 LTD SR SEC DEF NT CL D	1	3,943,088	4,004,980
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,956,403	4,012,948	12/06/2016	12/06/2046	Interest Rate Swap			87165V-AE-9	SYMPHONY CLO LTD-SYMP 2015-16A D	2	3,956,403	4,012,948
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,750,000	2,763,346	12/06/2016	12/06/2046	Interest Rate Swap			55953M-AG-7	MAGNETITE CLO LTD-MAGNE 2015-15A D	2	2,750,000	2,763,346
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,280,740	3,250,426	12/06/2016	12/06/2046	Interest Rate Swap			50188G-AN-3	LOM XVIII LTD PARTNERSHIP-DEF MEZZ NT CL D 144A	3	3,280,740	3,250,426
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,128,162	2,100,145	12/06/2016	12/06/2046	Interest Rate Swap			33882B-AE-9	FLATIRON CLO 2007-1 LTD DEF MEZZ TERM NOTE CL D	1	1,128,162	2,100,145
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,953,354	1,999,990	12/06/2016	12/06/2046	Interest Rate Swap			55818Y-AJ-0	MADISON PARK FUNDING LTD-SERIES 15- 17A CLASS D	1	1,953,354	1,999,990
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,009,483	2,026,116	12/06/2016	12/06/2046	Interest Rate Swap			87230A-AD-8	TCl-FLATIRON CLO LTD-TFLAT 2016-1A D	3	2,009,483	2,026,116
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,999,814	12/06/2016	12/06/2046	Interest Rate Swap			67706H-AJ-7	CHA LOAN FUNDING LTD-SERIES 13-1A CLASS D	2	3,000,000	2,999,814
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,000,000	9,000,828	12/06/2016	12/06/2046	Interest Rate Swap			04964H-AQ-1	ATRIUM VIII-DEF NT CL C-R	1	9,000,000	9,000,828
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,116,250	9,128,812	12/06/2016	12/06/2046	Interest Rate Swap			06759Y-AE-5	BARRINGS CLO LTD-BABSN 2016-3A B	1	9,116,250	9,128,812
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,003,586	7,003,381	12/06/2016	12/06/2046	Interest Rate Swap			26251B-AD-8	DRYDEN SENIOR LOAN FUND-SERIES 13- 28A CLASS A3L	1	7,003,586	7,003,381
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,753,190	6,786,816	12/06/2016	12/06/2046	Interest Rate Swap			87244A-BE-9	WIND RIVER CLO LTD-WINDR 2012-1A CR	1	6,753,190	6,786,816
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,700,000	6,735,222	12/06/2016	12/06/2046	Interest Rate Swap			14309Y-AY-0	CARLYLE GLOBAL MARKET ST-SERIES 2012-4A CLASS C1R	1	6,700,000	6,735,222
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,585,000	6,659,680	12/06/2016	12/06/2046	Interest Rate Swap			88433A-AE-9	THL CR WIND RIV 2016-1 CLO-SR SECD NT CL C 144A	1	6,585,000	6,659,680
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	5,029,930	12/06/2016	12/06/2046	Interest Rate Swap			00164B-AU-1	ALM LOAN FUNDING-SERIES ALM 2013- 7R2A CLASS BR	1	5,000,000	5,029,930
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	5,034,150	12/06/2016	12/06/2046	Interest Rate Swap			03328W-AE-8	ANCHORAGE CAPITAL CLO LT-ANCHC 2016-9A C	1	5,000,000	5,034,150
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	5,003,820	12/06/2016	12/06/2046	Interest Rate Swap			09627V-AW-5	BLUEMOUNTAIN CLO LTD-SERIES 2014-4A CLASS CR	1	5,000,000	5,003,820
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,729,833	4,764,459	12/06/2016	12/06/2046	Interest Rate Swap			55820N-AE-1	MADISON PARK FUNDING LTD-MDPK 2016- 24A C1	1	4,729,833	4,764,459
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,100,000	6,099,805	12/06/2016	12/06/2046	Interest Rate Swap			05617Y-AU-3	BARBON CLO LTD-BABSN 2013-11A BR	1	6,100,000	6,099,805
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,517,510	4,555,440	12/06/2016	12/06/2046	Interest Rate Swap			26244Y-AE-6	DRYDEN 42 SR LN FD-SR SEC DEF NT CL C	1	4,517,510	4,555,440
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,500,000	4,506,255	12/06/2016	12/06/2046	Interest Rate Swap			67091H-AP-6	CHA LOAN FUNDING LTD-SERIES 2012-1A CLASS CR	1	4,500,000	4,506,255
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,436,986	4,433,570	12/06/2016	12/06/2046	Interest Rate Swap			88432G-AE-7	WIND RIVER CLO LTD-WINDR 2015-2A C	1	4,436,986	4,433,570
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,375,000	4,403,061	12/06/2016	12/06/2046	Interest Rate Swap			48251B-AE-0	KKR FINANCIAL CLO LTD-KKR 16 B1	1	4,375,000	4,403,061
Filed with the SVO and awaiting RSAT	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,200,000	4,225,242	12/06/2016	12/06/2046	Interest Rate Swap			03763Y-AS-5	APIDOS CLO-SERIES 12-11A CLASS CR	1	4,200,000	4,225,242

S105.21

STATEMENT AS OF MARCH 31, 2017 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 ..	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds .....	1 .....		4,000,000	3,999,960	12/06/2016	12/06/2046	Interest Rate Swap .....				03765L-AL-6 ..	APIDOS CLO-SERIES 2015-20A CLASS BR	1 .....	4,000,000	3,999,960
Filed with the SVO and awaiting RSAT ..	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds .....	1 .....		4,000,000	4,019,044	12/06/2016	12/06/2046	Interest Rate Swap .....				09626R-AS-4 ..	BLUEMOUNTAIN CLO LTD-BLUEM 2012-2A CR	1 .....	4,000,000	4,019,044
Filed with the SVO and awaiting RSAT ..	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds .....	1 .....		2,945,523	2,917,369	12/06/2016	12/06/2046	Interest Rate Swap .....				00900A-AC-2 ..	AIMCO-SERIES 2014-AA CLASS C1 .....	1 .....	2,945,523	2,917,369
Filed with the SVO and awaiting RSAT ..	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds .....	1 .....		2,789,309	2,730,578	12/06/2016	12/06/2046	Interest Rate Swap .....				04941G-AE-8 ..	ATLAS SENIOR LOAN FUND L-SERIES 2013-1A CLASS C	1 .....	2,789,309	2,730,578
In Progress .....	Inverse JPY Long Term Bond .....	1 .....	50,000,000	59,173,232	62,339,360	03/24/2017	03/28/2019	Currency Forward .....		56,540		912828-KQ-2 ..	US TREASURY 3.125% TO 5/15/2019	1 .....	59,173,232	62,282,820
In Progress .....	Sovereign Bond of Peru .....	2 .....	5,000,000	10,856,489	9,933,422	03/20/2017	06/20/2022	5 Yr Credit Default Swap .....	(15,702)	(4,858)		912810-RP-5 ..	11/15/45	1 .....	10,872,191	9,938,280
In Progress .....	Sovereign Bond of Mexico .....	2 .....	15,000,000	25,923,014	30,533,936	03/20/2017	06/20/2022	5 Yr Credit Default Swap .....	(251,190)	(212,969)		912833-LL-2 ..	US TREASURY DUE 2/15/2023	1 .....	26,174,204	30,746,905
In Progress .....	Sovereign Bond of Panama .....	2 .....	10,000,000	14,505,192	16,438,123	03/20/2017	06/20/2022	5 Yr Credit Default Swap .....	(115,261)	(99,452)		912810-RF-7 ..	US TREASURY 1.375% DUE 2/15/2044	1 .....	14,620,453	16,537,575
In Progress .....	Inverse JPY Long Term Bond .....	1 .....	50,000,000	59,135,127	70,190,761	03/28/2017	04/01/2019	Currency Forward .....	400,761			912833-LN-8 ..	US TREASURY	1 .....	59,135,127	69,790,000
In Progress .....	Sovereign Bond of India .....	3 .....	10,000,000	14,482,466	16,401,841	03/20/2017	06/20/2022	5 Yr Credit Default Swap .....	(137,987)	(135,734)		912810-RF-7 ..	US TREASURY 1.375% DUE 2/15/2044	1 .....	14,620,453	16,537,575
In Progress .....	Sovereign Bond of Brazil .....	3 .....	10,000,000	13,993,836	15,955,048	03/20/2017	06/20/2022	5 Yr Credit Default Swap .....	(626,617)	(582,527)		912810-RF-7 ..	US TREASURY 1.375% DUE 2/15/2044	1 .....	14,620,453	16,537,575
<b>9999999 - Totals</b>				11,704,704,132	12,308,059,754	XXX	XXX	XXX	31,155,575	413,306,628	XXX	XXX	XXX	XXX	11,673,548,557	11,894,753,126

STATEMENT AS OF MARCH 31, 2017 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 .....	88	10,739,000,000							88	10,739,000,000
2. Add: Opened or Acquired Transactions.....	7	150,000,000							7	150,000,000
3. Add: Increases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX		XXX		XXX		XXX		XXX	
4. Less: Closed or Disposed of Transactions.....										
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 .....	95	10,889,000,000							95	10,889,000,000

STATEMENT AS OF MARCH 31, 2017 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.....	3,554,921,758
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance.....	.....
3.	Total (Line 1 plus Line 2).....	3,554,921,758
4.	Part D, Section 1, Column 5.....	9,097,478,359
5.	Part D, Section 1, Column 6.....	(5,542,556,601)
6.	Total (Line 3 minus Line 4 minus Line 5).....	.....
		Fair Value Check
7.	Part A, Section 1, Column 16.....	3,937,072,903
8.	Part B, Section 1, Column 13.....	.....
9.	Total (Line 7 plus Line 8).....	3,937,072,903
10.	Part D, Section 1, Column 8.....	9,553,495,289
11.	Part D, Section 1, Column 9.....	(5,616,422,386)
12.	Total (Line 9 minus Line 10 minus Line 11).....	.....
		Potential Exposure Check
13.	Part A, Section 1, Column 21.....	5,316,217,966
14.	Part B, Section 1, Column 20.....	103,365,300
15.	Part D, Section 1, Column 11.....	5,419,583,266
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 .....	3,113,185,611	2,706,693,131
2. Cost of cash equivalents acquired .....	25,273,090,488	94,374,151,148
3. Accrual of discount .....	8,877,939	22,360,462
4. Unrealized valuation increase (decrease) .....		
5. Total gain (loss) on disposals .....	9,097	60,907
6. Deduct consideration received on disposals .....	25,249,539,246	93,990,074,259
7. Deduct amortization of premium .....		5,778
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) .....	3,145,623,889	3,113,185,611
11. Deduct total nonadmitted amounts .....		
12. Statement value at end of current period (Line 10 minus Line 11)	3,145,623,889	3,113,185,611