



LIFE, ACCIDENT AND HEALTH COMPANIES/FRATERNAL BENEFIT SOCIETIES - ASSOCIATION EDITION

QUARTERLY STATEMENT

AS OF MARCH 31, 2020

OF THE CONDITION AND AFFAIRS OF THE

Massachusetts Mutual Life Insurance Company

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

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

Country of Domicile United States of America

Licensed as business type: Life, Accident and Health [X] Fraternal Benefit Societies []

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

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

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

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

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

Internet Website Address www.massmutual.com

Statutory Statement Contact Yiji S. Starr (Name) 617-695-4651 (Area Code) (Telephone Number) ystarr02@massmutual.com (E-mail Address) 413-226-4086 (FAX Number)

OFFICERS

President and Chief Executive Officer Roger William Crandall Secretary Akintokunbo Akinbajo Treasurer Todd Garrett Picken Appointed Actuary Douglas Wright Taylor

OTHER

Elizabeth Ward Chicares, Chief Financial Officer Adnan Omar Ahmed, Head of MassMutual International Susan Marie Cicco, Head of Human Resources & Employee Experience Michael Robert Fanning, Head of MassMutual U.S. Geoffrey James Craddock, Chief Risk Officer Michael James O'Connor, General Counsel Melvin Timothy Corbett, Chief Investment Officer Pia Denise Flanagan, Chief of Staff to the CEO Gareth Fielding Ross, Head of Enterprise Technology & Experience

DIRECTORS OR TRUSTEES

Roger William Crandall - Chairman Kathleen Ann Corbet Jeffrey Marc Leiden Howard Todd Stitzer - Lead Director Karen Hall Bechtel James Henry DeGraffenreidt, Jr. Laura Jeanne Sen Shelley Beth Leibowitz Mark Thomas Bertolini Isabella Davidov Goren William Taylor Spitz

State of Massachusetts County of Hampden SS:

The officers of this reporting entity being duly sworn, each depose and say that they are the described officers of said reporting entity, and that on the reporting period stated above, all of the herein described assets were the absolute property of the said reporting entity, free and clear from any liens or claims thereon, except as herein stated, and that this statement, together with related exhibits, schedules and explanations therein contained, annexed or referred to, is a full and true statement of all the assets and liabilities and of the condition and affairs of the said reporting entity as of the reporting period stated above, and of its income and deductions therefrom for the period ended, and have been completed in accordance with the NAIC Annual Statement Instructions and Accounting Practices and Procedures manual except to the extent that: (1) state law may differ; or, (2) that state rules or regulations require differences in reporting not related to accounting practices and procedures, according to the best of their information, knowledge and belief, respectively. Furthermore, the scope of this attestation by the described officers also includes the related corresponding electronic filing with the NAIC, when required, that is an exact copy (except for formatting differences due to electronic filing) of the enclosed statement. The electronic filing may be requested by various regulators in lieu of or in addition to the enclosed statement.

Roger William Crandall President and Chief Executive Officer

Akintokunbo Akinbajo Secretary

Todd Garrett Picken Treasurer

Subscribed and sworn to before me this day of

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

STATEMENT AS OF MARCH 31, 2020 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	104,689,074,453		104,689,074,453	101,906,630,889
2. Stocks:				
2.1 Preferred stocks	738,744,242		738,744,242	748,884,136
2.2 Common stocks	17,986,661,033	189,047	17,986,471,986	18,155,623,985
3. Mortgage loans on real estate:				
3.1 First liens	27,973,504,875		27,973,504,875	27,472,894,866
3.2 Other than first liens.....				
4. Real estate:				
4.1 Properties occupied by the company (less \$ encumbrances)	227,842,482		227,842,482	209,287,678
4.2 Properties held for the production of income (less \$ 951,191,045 encumbrances)	118,661,074		118,661,074	148,924,938
4.3 Properties held for sale (less \$ encumbrances)				
5. Cash (\$ 97,459,431), cash equivalents (\$ 8,916,807,193) and short-term investments (\$ 3,079,777,620)	12,094,044,244		12,094,044,244	3,793,098,998
6. Contract loans (including \$ premium notes)	14,931,841,582	508,446	14,931,333,136	14,724,907,074
7. Derivatives	29,974,995,858		29,974,995,858	12,063,706,294
8. Other invested assets	9,263,221,380	59,648,731	9,203,572,649	9,011,826,432
9. Receivables for securities	789,493,203		789,493,203	2,037,001,924
10. Securities lending reinvested collateral assets				
11. Aggregate write-ins for invested assets				
12. Subtotals, cash and invested assets (Lines 1 to 11)	218,788,084,426	60,346,224	218,727,738,202	190,272,787,214
13. Title plants less \$ charged off (for Title insurers only)				
14. Investment income due and accrued	2,573,949,781	6,869,419	2,567,080,362	2,686,542,135
15. Premiums and considerations:				
15.1 Uncollected premiums and agents' balances in the course of collection	114,031,450	2,946,339	111,085,111	166,485,191
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$ earned but unbilled premiums)	831,367,344		831,367,344	848,612,345
15.3 Accrued retrospective premiums (\$) and contracts subject to redetermination (\$)				
16. Reinsurance:				
16.1 Amounts recoverable from reinsurers	49,364,435	24,536	49,339,899	37,140,266
16.2 Funds held by or deposited with reinsured companies				
16.3 Other amounts receivable under reinsurance contracts	14,365,757		14,365,757	40,267,993
17. Amounts receivable relating to uninsured plans				
18.1 Current federal and foreign income tax recoverable and interest thereon	184,607,123		184,607,123	
18.2 Net deferred tax asset	39,743,948		39,743,948	1,108,192,574
19. Guaranty funds receivable or on deposit	15,879,949		15,879,949	16,042,391
20. Electronic data processing equipment and software	257,172,709	240,099,761	17,072,948	16,516,928
21. Furniture and equipment, including health care delivery assets (\$)	67,380,447	67,380,447		
22. Net adjustment in assets and liabilities due to foreign exchange rates				
23. Receivables from parent, subsidiaries and affiliates	45,919,920	239,820	45,680,100	80,437,664
24. Health care (\$) and other amounts receivable				
25. Aggregate write-ins for other than invested assets	3,380,285,635	1,096,067,311	2,284,218,324	2,745,562,008
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	226,362,152,923	1,473,973,857	224,888,179,066	198,018,586,709
27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts	61,596,868,371		61,596,868,371	70,230,699,186
28. Total (Lines 26 and 27)	287,959,021,294	1,473,973,857	286,485,047,437	268,249,285,895
DETAILS OF WRITE-INS				
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	2,214,267,874		2,214,267,874	2,289,698,680
2502. Pension plan asset	622,622,757	622,622,757		
2503. Cash advances to agents	233,178,037	233,178,037		
2598. Summary of remaining write-ins for Line 25 from overflow page	310,216,967	240,266,518	69,950,450	455,863,328
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	3,380,285,635	1,096,067,311	2,284,218,324	2,745,562,008

STATEMENT AS OF MARCH 31, 2020 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 \$130,778,372,738 less \$ included in Line 6.3 (including \$105,721,576 Modco Reserve)	130,778,372,738	127,404,910,418
2. Aggregate reserve for accident and health contracts (including \$ Modco Reserve)	3,094,174,218	3,074,252,813
3. Liability for deposit-type contracts (including \$ Modco Reserve)	16,452,147,621	15,296,773,875
4. Contract claims:		
4.1 Life	422,596,802	395,457,118
4.2 Accident and health	29,138,852	28,571,378
5. Policyholders' dividends/refunds to members \$4,221,536 and coupons \$ due and unpaid	4,221,536	5,418,002
6. Provision for policyholders' dividends, refunds to members and coupons payable in following calendar year - estimated amounts:		
6.1 Policyholders' dividends and refunds to members apportioned for payment (including \$ Modco)	1,691,105,141	1,678,330,958
6.2 Policyholders' dividends and refunds to members 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 \$9,661,638 accident and health premiums	49,925,234	38,780,694
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	12,388,727	10,737,816
9.3 Other amounts payable on reinsurance, including \$8,336,581 assumed and \$8,728,269 ceded	17,064,849	32,432,419
9.4 Interest Maintenance Reserve	863,241,512	438,181,103
10. Commissions to agents due or accrued-life and annuity contracts \$23,412,195 , accident and health \$277,928 and deposit-type contract funds \$13,686,518	37,376,640	31,267,218
11. Commissions and expense allowances payable on reinsurance assumed	3,657,992	3,509,387
12. General expenses due or accrued	927,896,038	1,213,851,888
13. Transfers to Separate Accounts due or accrued (net) (including \$(91,804,186) accrued for expense allowances recognized in reserves, net of reinsured allowances)	(106,196,274)	(134,499,953)
14. Taxes, licenses and fees due or accrued, excluding federal income taxes	35,533,550	74,722,727
15.1 Current federal and foreign income taxes, including \$ on realized capital gains (losses)		22,586,267
15.2 Net deferred tax liability		
16. Unearned investment income	146,168,780	194,435,521
17. Amounts withheld or retained by reporting entity as agent or trustee	36,873,696	38,020,441
18. Amounts held for agents' account, including \$ agents' credit balances	329,881,929	392,163,578
19. Remittances and items not allocated	657,553,295	777,472,078
20. Net adjustment in assets and liabilities due to foreign exchange rates		
21. Liability for benefits for employees and agents if not included above	175,520,678	198,284,548
22. Borrowed money \$249,866,014 and interest thereon \$	249,866,013	249,869,729
23. Dividends to stockholders declared and unpaid		
24. Miscellaneous liabilities:		
24.01 Asset valuation reserve	4,621,994,101	4,670,184,316
24.02 Reinsurance in unauthorized and certified (\$) companies	2,515,753	162,371
24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers		
24.04 Payable to parent, subsidiaries and affiliates	22,516,135	32,575
24.05 Drafts outstanding		
24.06 Liability for amounts held under uninsured plans		
24.07 Funds held under coinsurance	4,297,501,283	4,252,254,372
24.08 Derivatives	21,359,630,466	9,608,418,011
24.09 Payable for securities	336,563,797	
24.10 Payable for securities lending		
24.11 Capital notes \$ and interest thereon \$		
25. Aggregate write-ins for liabilities	16,348,463,098	9,129,094,870
26. Total liabilities excluding Separate Accounts business (Lines 1 to 25)	202,897,694,200	179,125,676,538
27. From Separate Accounts Statement	61,596,868,368	70,230,699,186
28. Total liabilities (Lines 26 and 27)	264,494,562,569	249,356,375,724
29. Common capital stock		
30. Preferred capital stock		
31. Aggregate write-ins for other than special surplus funds		
32. Surplus notes	2,235,399,709	2,235,399,709
33. Gross paid in and contributed surplus		
34. Aggregate write-ins for special surplus funds	3,250,783	3,256,298
35. Unassigned funds (surplus)	19,751,834,375	16,654,254,164
36. Less treasury stock, at cost:		
36.1 shares common (value included in Line 29 \$)		
36.2 shares preferred (value included in Line 30 \$)		
37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement)	21,990,484,868	18,892,910,171
38. Totals of Lines 29, 30 and 37	21,990,484,868	18,892,910,171
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	286,485,047,437	268,249,285,895
DETAILS OF WRITE-INS		
2501. Derivative collateral	10,386,421,934	3,285,024,061
2502. Repurchase agreements	3,776,174,007	3,845,289,040
2503. Derivative accrued interest	2,080,176,702	1,894,857,257
2598. Summary of remaining write-ins for Line 25 from overflow page	105,690,455	103,924,512
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	16,348,463,098	9,129,094,870
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. Miscellaneous	783	6,298
3498. Summary of remaining write-ins for Line 34 from overflow page		
3499. Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)	3,250,783	3,256,298

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	7,342,766,212	4,918,768,249	22,752,212,483
2. Considerations for supplementary contracts with life contingencies	11,493,674	7,736,608	28,590,209
3. Net investment income	1,702,413,158	1,677,497,334	7,682,463,670
4. Amortization of Interest Maintenance Reserve (IMR)	17,153,847	3,517,427	10,699,953
5. Separate Accounts net gain from operations excluding unrealized gains or losses			
6. Commissions and expense allowances on reinsurance ceded	63,264,309	53,213,417	287,604,065
7. Reserve adjustments on reinsurance ceded	(2,918,497)	(4,930,576)	(33,004,043)
8. Miscellaneous Income:			
8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts	98,670,220	93,832,994	402,141,262
8.2 Charges and fees for deposit-type contracts			
8.3 Aggregate write-ins for miscellaneous income	58,783,987	194,162,624	724,320,590
9. Totals (Lines 1 to 8.3)	9,291,626,910	6,943,798,077	31,855,028,189
10. Death benefits	525,525,128	563,161,116	2,032,965,426
11. Matured endowments (excluding guaranteed annual pure endowments)	2,883,825	4,289,240	17,173,120
12. Annuity benefits	593,246,394	536,867,117	2,198,346,477
13. Disability benefits and benefits under accident and health contracts	96,046,375	90,398,397	373,206,297
14. Coupons, guaranteed annual pure endowments and similar benefits			
15. Surrender benefits and withdrawals for life contracts	5,218,702,270	4,222,900,789	19,529,326,111
16. Group conversions			
17. Interest and adjustments on contract or deposit-type contract funds	128,150,559	112,793,680	416,137,455
18. Payments on supplementary contracts with life contingencies	5,536,270	3,902,198	17,210,071
19. Increase in aggregate reserves for life and accident and health contracts	3,387,435,523	960,632,746	8,429,331,327
20. Totals (Lines 10 to 19)	9,957,526,344	6,494,945,283	33,013,696,284
21. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	245,613,790	239,543,967	995,608,854
22. Commissions and expense allowances on reinsurance assumed	15,643,529	18,631,644	71,517,738
23. General insurance expenses and fraternal expenses	505,152,526	557,734,602	2,387,273,112
24. Insurance taxes, licenses and fees, excluding federal income taxes	78,134,145	78,333,205	271,331,349
25. Increase in loading on deferred and uncollected premiums	45,221,233	(11,835,948)	(11,544,534)
26. Net transfers to or (from) Separate Accounts net of reinsurance	76,426,038	(718,491,580)	(6,020,187,105)
27. Aggregate write-ins for deductions	(334,580,247)	(131,990,651)	(969,782,095)
28. Totals (Lines 20 to 27)	10,589,137,358	6,526,870,522	29,737,913,603
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	(1,297,510,448)	416,927,555	2,117,114,586
30. Dividends to policyholders and refunds to members	383,430,158	392,983,681	1,671,109,490
31. Net gain from operations after dividends to policyholders, refunds to members and before federal income taxes (Line 29 minus Line 30)	(1,680,940,606)	23,943,874	446,005,096
32. Federal and foreign income taxes incurred (excluding tax on capital gains)	(438,757,071)	68,531,672	(14,965,399)
33. Net gain from operations after dividends to policyholders, refunds to members and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32)	(1,242,183,535)	(44,587,798)	460,970,495
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$156,108,522 (excluding taxes of \$76,391,006 transferred to the IMR)	110,057,242	38,911,425	(36,723,981)
35. Net income (Line 33 plus Line 34)	(1,132,126,293)	(5,676,373)	424,246,514
CAPITAL AND SURPLUS ACCOUNT			
36. Capital and surplus, December 31, prior year	18,892,910,171	15,609,786,669	15,609,786,669
37. Net income (Line 35)	(1,132,126,293)	(5,676,373)	424,246,514
38. Change in net unrealized capital gains (losses) less capital gains tax of \$1,264,580,662	4,964,272,557	(108,075,452)	3,433,085,448
39. Change in net unrealized foreign exchange capital gain (loss)	(774,512,999)	47,062,948	282,236,801
40. Change in net deferred income tax	(10,496,377)	12,262,513	(55,178,457)
41. Change in nonadmitted assets	1,731,687	245,274,292	747,091,623
42. Change in liability for reinsurance in unauthorized and certified companies	(2,353,382)	4,488	26,971
43. Change in reserve on account of change in valuation basis, (increase) or decrease	12,700,000		
44. Change in asset valuation reserve	48,190,215	(63,625,259)	(1,363,364,249)
45. Change in treasury stock			
46. Surplus (contributed to) withdrawn from Separate Accounts during period			
47. Other changes in surplus in Separate Accounts Statement			
48. Change in surplus notes		126,445	(32,696,502)
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	(9,830,710)	(37,733,859)	(152,324,647)
54. Net change in capital and surplus for the year (Lines 37 through 53)	3,097,574,697	89,619,743	3,283,123,502
55. Capital and surplus, as of statement date (Lines 36 + 54)	21,990,484,868	15,699,406,412	18,892,910,171
DETAILS OF WRITE-INS			
08.301. Management and administrative fees	74,930,947	64,114,876	296,192,756
08.302. Experience refunds on reinsurance contracts	28,894,003	34,064,519	139,598,736
08.303. Revenue sharing income	16,348,805	23,141,068	70,699,722
08.398. Summary of remaining write-ins for Line 8.3 from overflow page	(61,389,768)	72,842,161	217,829,376
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	58,783,987	194,162,624	724,320,590
2701. Change in reserves due to reinsurance agreement	(306,252,905)	(223,224,566)	(1,271,061,635)
2702. Change in liability for employee/agent benefit plans	(72,157,334)	35,366,784	78,261,701
2703. Market value adjustment transfer	(7,898,406)	897,095	(8,147,124)
2798. Summary of remaining write-ins for Line 27 from overflow page	51,728,398	54,970,036	231,164,963
2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(334,580,247)	(131,990,651)	(969,782,095)
5301. Other changes in surplus	(6,369,556)	(34,280,840)	(70,447,207)
5302. Reinsurance ceded adjustment	(3,461,937)	(3,453,020)	(13,812,078)
5303. Miscellaneous changes in surplus	783		6,298
5398. Summary of remaining write-ins for Line 53 from overflow page			(68,071,660)
5399. Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(9,830,710)	(37,733,859)	(152,324,647)

STATEMENT AS OF MARCH 31, 2020 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
Cash from Operations			
1. Premiums collected net of reinsurance	7,231,052,668	5,075,518,514	21,735,866,524
2. Net investment income	1,997,495,702	2,377,581,827	8,303,151,927
3. Miscellaneous income	266,739,239	241,121,635	1,243,499,726
4. Total (Lines 1 to 3)	9,495,287,609	7,694,221,976	31,282,518,177
5. Benefit and loss related payments	6,557,056,687	5,421,254,124	24,526,302,847
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(282,088,658)	(716,896,432)	(5,814,454,588)
7. Commissions, expenses paid and aggregate write-ins for deductions	872,710,026	789,052,588	2,545,220,039
8. Dividends paid to policyholders	372,529,690	379,690,111	1,700,081,097
9. Federal and foreign income taxes paid (recovered) net of \$ tax on capital gains (losses)	14,311	(329,708,759)	(551,870,216)
10. Total (Lines 5 through 9)	7,520,222,056	5,543,391,632	22,405,279,179
11. Net cash from operations (Line 4 minus Line 10)	1,975,065,553	2,150,830,344	8,877,238,998
Cash from Investments			
12. Proceeds from investments sold, matured or repaid:			
12.1 Bonds	5,841,576,446	4,584,343,441	22,233,455,081
12.2 Stocks	132,553,616	100,613,803	844,400,761
12.3 Mortgage loans	881,607,051	306,815,017	2,418,102,264
12.4 Real estate		27,685,844	191,891,888
12.5 Other invested assets	208,596,156	287,382,621	1,206,661,774
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	(17,046,526)	(4,101,561)	(12,802,156)
12.7 Miscellaneous proceeds	2,989,485,064	(164,730,983)	12,959,009
12.8 Total investment proceeds (Lines 12.1 to 12.7)	10,036,771,807	5,138,008,182	26,894,668,621
13. Cost of investments acquired (long-term only):			
13.1 Bonds	9,190,376,093	5,758,089,109	25,866,569,075
13.2 Stocks	75,368,572	618,258,076	1,647,109,000
13.3 Mortgage loans	1,543,800,748	1,066,065,248	6,210,548,424
13.4 Real estate	9,965,559	24,342,892	119,647,233
13.5 Other invested assets	401,132,584	292,967,428	1,368,483,874
13.6 Miscellaneous applications	(143,844,520)	(171,009,137)	384,097,084
13.7 Total investments acquired (Lines 13.1 to 13.6)	11,076,799,036	7,588,713,616	35,596,454,690
14. Net increase (or decrease) in contract loans and premium notes	206,268,867	111,392,321	851,895,379
15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	(1,246,296,096)	(2,562,097,755)	(9,553,681,448)
Cash from Financing and Miscellaneous Sources			
16. Cash provided (applied):			
16.1 Surplus notes, capital notes			(39,146,661)
16.2 Capital and paid in surplus, less treasury stock			
16.3 Borrowed funds	122,155	(11,083)	187,979
16.4 Net deposits on deposit-type contracts and other insurance liabilities	1,228,515,057	43,210,355	867,590,741
16.5 Dividends to stockholders			
16.6 Other cash provided (applied)	6,343,538,577	(533,471,186)	(677,094,357)
17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	7,572,175,789	(490,271,914)	151,537,702
RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS			
18. Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17)	8,300,945,246	(901,539,325)	(524,904,748)
19. Cash, cash equivalents and short-term investments:			
19.1 Beginning of year	3,793,098,998	4,318,003,746	4,318,003,746
19.2 End of period (Line 18 plus Line 19.1)	12,094,044,244	3,416,464,421	3,793,098,998

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

20.0001. Bonds received as consideration for group annuity contract	197,473,459		1,241,901,840
20.0002. Premium income recognized for a group annuity contracts	197,473,459		916,910,574
20.0003. Bond conversions and refinancing	89,958,630	214,838,104	1,025,338,604
20.0004. Change in market value of COLI	71,258,534	64,107,739	175,204,250
20.0005. Stock conversion	10,098,365	34,441,760	67,534,530
20.0006. Net investment income payment in-kind bonds	2,765,166	1,170,496	5,399,567
20.0007. Dividend reinvestment		116,308	2,891,602
20.0008. Net investment income payment in-kind stocks		78,219	78,219
20.0009. Transfer of mortgage loans to other than invested assets			96,116,616
20.0010. Stock distributions to other than invested assets			268,168

STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

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

20.0011. Transfer of common stocks – subsidiaries and affiliated to other than invested assets .....	.....	.....	.....52,176
20.0012. Transfer of mortgage loans to other invested assets .....	.....	38,709,033	.....
20.0013. Other invested assets transferred to stock .....	.....	52,176	.....

EXHIBIT 1

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
1. Industrial life			
2. Ordinary life insurance	2,026,620,909	1,657,444,626	9,249,446,921
3. Ordinary individual annuities	937,346,125	925,883,964	3,776,196,851
4. Credit life (group and individual)			
5. Group life insurance	29,377,049	261,353,013	102,931,648
6. Group annuities	4,690,425,977	2,181,664,413	11,488,234,506
7. A & H - group	104,508	115,926	347,479
8. A & H - credit (group and individual)			
9. A & H - other	192,037,850	184,931,079	761,476,127
10. Aggregate of all other lines of business			
11. Subtotal (Lines 1 through 10)	7,875,912,418	5,211,393,021	25,378,633,532
12. Fraternal (Fraternal Benefit Societies Only)			
13. Subtotal (Lines 11 through 12)	7,875,912,418	5,211,393,021	25,378,633,532
14. Deposit-type contracts	2,023,647,434	1,702,426,814	5,736,348,965
15. Total (Lines 13 and 14)	9,899,559,852	6,913,819,835	31,114,982,497
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)			

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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 #	2020	2019
NET INCOME					
(1) State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$ (1,132,126,293)	\$ 424,246,514
(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	\$ (1,132,126,293)	\$ 424,246,514
SURPLUS					
(5) State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$ 21,990,484,868	\$ 18,892,910,171
(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	\$ 21,990,484,868	\$ 18,892,910,171

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

c. Accounting policy:

(1) No change

- (2) Bonds are generally valued at amortized cost using the constant yield interest method with the exception of NAIC Category 6 bonds, which are in or near default, and certain residential mortgage-backed securities (RMBS) and commercial mortgage-backed securities (CMBS), which are rated by outside modelers, which are carried at the lower of amortized cost or fair value. NAIC ratings are applied to bonds and other securities. Categories 1 and 2 are considered investment grade, while Categories 3 through 6 are considered below investment grade. Bond transactions are recorded on a trade date basis, except for private placement bonds, which are recorded on the funding date.

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

(3-5) No Change

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

Certain fixed income securities with the highest ratings from a rating agency follow the retrospective method of accounting. Under the retrospective method, the recalculated effective yield equates the present value of the actual and anticipated cash flows, including new prepayment assumptions, to the original cost of the investment. Prepayment assumptions are based on borrower constraints and economic incentives such as the original term, age and coupon of the loan as affected by the interest rate environment. The current carrying value is then increased or decreased to the amount that would have resulted had the revised yield been applied since inception, and investment income is correspondingly decreased or increased.

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

(7-14) No change

d. Going concern:

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

Note 2 – Accounting Changes and Corrections of Errors

- a. For the three months ended March 31, 2020, corrections of prior years' errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		
	Prior Years' Net Income	Current Year Surplus	Asset or Liability Balances
Policyholders' reserves	\$ (6,369,556)	\$ (6,369,556)	\$ 6,369,556
Total	<u>\$ (6,369,556)</u>	<u>\$ (6,369,556)</u>	

Of the \$6,369,556 decrease to surplus for prior years' errors, \$6,369,556 was recorded as prior period adjustments, net of taxes.

NOTES TO FINANCIAL STATEMENTS

For the three months ended March 31, 2019, corrections of prior years' errors were recorded in surplus, net of tax:

	Increase (Decrease) to:		
	Prior Years' Net Income	Current Year Surplus	Asset or Liability Balances
Other than invested assets	\$ (5,050,840)	\$ 113,449,160	\$ (113,449,160)
Policyholders' reserves	(26,070,000)	(26,070,000)	26,070,000
Other liabilities	(3,160,000)	(3,160,000)	3,160,000
Total	\$ (34,280,840)	\$ 84,219,160	

Of the \$84,219,160 increase to surplus for prior years' errors, \$34,280,840 was recorded as prior period adjustments with an additional amount of \$118,500,000 that was recorded as a change in nonadmitted assets, net of taxes.

b. Adoption of new accounting standards:

In June 2016, the NAIC adopted modifications to Statements of Statutory Accounting Principles (SSAP) No. 51R, *Life Contracts*, to incorporate references to the Valuation Manual and to facilitate the implementation of principles-based reserving (PBR), which were effective on January 1, 2017. The adoption of PBR only applies to new life insurance policies issued after January 1, 2017, however the Company adopted these revisions to SSAP No. 51R using the 3-year phased in approach as of January 1, 2020. Prior to adoption, the Company used formulas and assumptions to determine reserves as prescribed by state laws and regulations. Under PBR, the Company is 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. At the time of adoption, the modifications did not have a material effect on the Company's total life reserves and surplus in the financial statements.

In April 2019, the NAIC adopted modifications to SSAP No. 16R, *Electronic Data Processing Equipment and Software*, effective January 1, 2020, the Company elected to early adopt effective April 1, 2019. This guidance aligns and clarifies the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract, with the requirement for capitalizing implementation costs incurred to develop or obtain internal-use software. Costs for implementation activities in the application development stage is capitalized, depending on the nature of the costs and would be nonadmitted, while costs incurred during preliminary project or post implementation stages are expensed as incurred. The amendments also require the entity to expense the capitalized implementation costs of a hosting arrangement that is a service contract over the lesser of the expected term of the hosting arrangement or five years. The Company adopted this guidance on a prospective basis and the adoption did not have a material impact to its financial statements.

In August 2019, the NAIC adopted modifications to SSAP No. 51R, *Life Contracts*, to incorporate references to the Valuation Manual and to facilitate the implementation of PBR. The adoption, effective January 1, 2020, only applies to certain annuity products and includes inforce policies issued after 1980. Prior to adoption, the Company used formulas and assumptions to determine reserves as prescribed by state laws and regulations. Under PBR, the aggregate reserve for contracts falling within the scope of these requirements shall equal the stochastic reserve plus the additional standard projection amount less the projected interest maintenance reserve included in the starting assets. These requirements constitute the Commissioners Annuity Reserve Valuation Method for all contracts encompassed by the scope. The modifications did not have a material effect on the Company's total annuity reserves and surplus in the financial statements.

In April 2020, the NAIC adopted modifications to SSAP Nos. 15, 22R and 86. These revisions adopt Financial Accounting Standards Board Accounting Standard Update No. 2020-04 *Reference Rate Reform*, which applies only to contracts, hedging relationships, and other transactions that reference London Inter-Bank Offered Rate (LIBOR) or another reference rate expected to be discontinued because of reference rate reform. Optional expedients allow entities (under certain circumstances) to avoid having to remeasure contracts or reassess a previous accounting determination for hedged items. The guidance is effective through December 31, 2022. The Company has adopted this guidance and the adoption did not have a material impact on its financial statements.

In April 2020, the NAIC adopted modifications to SSAP Nos. 6, 47, 51 and 65. This guidance extends the 90-Day Rule due to the impacts of COVID-19 and provides exception to the 90-day past due rule for nonadmittance required in SSAP No. 6 for premiums, SSAP No. 47 for uncollected uninsured plan receivables, SSAP No. 51 for life premiums and SSAP No. 65 for high deductible policies. It is applicable only for the first and second quarters of 2020 and expires on September 29, 2020. The Company has adopted this guidance.

In April 2020, the NAIC adopted modifications to SSAP No. 36. This guidance notes a mortgage loan or bank loan modification due to the impacts of COVID-19 on the borrower will not automatically be categorized as a troubled debt restructuring. To qualify for relief, the borrower must have been in good standing as of December 31, 2019 (not more than 30 days past due). This guidance expires at the earlier of 60 days after the date of termination of the National Emergency or December 31, 2020. The Company has adopted this guidance.

In April 2020, the NAIC adopted modifications to SSAP Nos. 26R, 30R, 37, 43R and 48. This guidance provides limited time exceptions for impairment assessments related to mortgage loans, bank loans and other investments that predominantly invest in mortgage loans and does not require an impairment classification under SSAP No. 37 for mortgage loans or SSAP No. 26R for bank loans that are deferred/modified in response to the impacts of COVID-19. It also provides limited-scope provisions for assessing impairment for other investments (e.g., mutual funds, limited liability companies) that predominantly invest in mortgage loans impacted due to fair value declines if the entity does not intend to sell. This guidance only defers the assessment of impairment due to situations caused by the forbearance or modification of mortgage loan or bank loan payments for borrowers who are or may be unable to meet their contractual payment obligations because they are experiencing short-term financial or operational problems due to the effects of COVID-19. This guidance is only applicable for the first and second quarters of 2020 as it expires on September 29, 2020. The Company has adopted this guidance.

NOTES TO 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

d. Loan-backed 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 other-than-temporary impairments (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	24,799,788	-	4,602,442	20,197,346
c. Total first quarter	<u>\$ 24,799,788</u>	<u>\$ -</u>	<u>\$ 4,602,442</u>	<u>\$ 20,197,346</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>
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>
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>
m. Annual aggregate total		<u>\$ -</u>	<u>\$ 4,602,442</u>	

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

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

NOTES TO FINANCIAL STATEMENTS

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
05535DCF9	\$ 3,012,907	\$ 2,862,429	\$ (150,478)	\$ 2,862,429	\$ 2,528,432	March 31, 2020
24763LFY1	147,758	146,827	(931)	146,827	180,454	March 31, 2020
45071KDD3	575,329	510,787	(64,542)	510,787	491,576	March 31, 2020
07384YPP5	33,493	28,061	(5,431)	28,061	46,723	March 31, 2020
12667GKG7	93,290	83,622	(9,668)	83,622	98,905	March 31, 2020
17307GRU4	114,325	112,699	(1,625)	112,699	157,144	March 31, 2020
362290AC2	316,883	225,907	(90,976)	225,907	322,987	March 31, 2020
59020UW43	214,183	182,719	(31,463)	182,719	200,181	March 31, 2020
65535VRK6	716,497	699,498	(16,998)	699,498	646,333	March 31, 2020
75115DAH8	6,842	6,564	(279)	6,564	6,397	March 31, 2020
76112BUE8	181,578	148,845	(32,733)	148,845	129,998	March 31, 2020
79548KXQ6	187,063	182,973	(4,090)	182,973	137,728	March 31, 2020
92926UAC5	136,220	130,734	(5,486)	130,734	130,957	March 31, 2020
23332UBW3	46,195	32,143	(14,052)	32,143	24,852	March 31, 2020
12669GWN7	889,281	871,126	(18,155)	871,126	863,235	March 31, 2020
32051DCK6	88,205	86,848	(1,358)	86,848	89,678	March 31, 2020
362334CN2	14,634	11,177	(3,457)	11,177	13,996	March 31, 2020
466247K93	7,584	6,335	(1,249)	6,335	7,318	March 31, 2020
57645LAA2	18,017,521	13,868,050	(4,149,471)	13,868,050	18,607,055	March 31, 2020
Totals	\$ 24,799,788	\$ 20,197,344	\$ (4,602,442)	\$ 20,197,344	\$ 24,683,949	

- (4) As of March 31, 2020, 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	\$ (1,049,393,142)
2. 12 months or longer	\$ (345,049,449)
b. The aggregate related fair value of securities with unrealized losses:	
1. Less than 12 months	\$ 9,337,219,448
2. 12 months or longer	\$ 3,128,152,211

- (5) No change

- e. Dollar repurchase agreements and/or securities lending transactions: The Company did not have any dollar repurchase agreements and/or securities lending transactions as of March 31, 2020.

- f. Repurchase agreements transactions accounted for as secured borrowing:

- (1) The Company has entered into repurchase agreements whereby the Company sells securities and simultaneously agrees to repurchase the same or substantially the same securities. These repurchase agreements are accounted for as collateralized borrowings with the proceeds from the sale of the securities recorded as a liability and the underlying securities continue to be recorded as an investment by the Company. Earnings on these investments are recorded as investment income and the difference between the proceeds and the amount at which the securities will be subsequently reacquired is amortized as interest expense. Repurchase agreements are used as a tool for overall portfolio management to help ensure the Company maintains adequate assets in order to provide yield, spread and duration to support liabilities and other corporate needs.

The Company provides collateral, as dictated by the repurchase agreements, to the counterparty in exchange for a loan. If the fair value of the securities sold becomes less than the loan, the counterparty may require additional collateral.

The carrying value, which is at cost, reported in the Company's liabilities as repurchase agreements approximates the fair value.

- (2) Type of Repo Trades Used

	1 FIRST QUARTER	2 SECOND QUARTER	3 THIRD QUARTER	4 FOURTH QUARTER
a. Bilateral (YES/NO)	YES			
b. Tri-Party (YES/NO)	NO			

- (3) Original (Flow) & Residual Maturity

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. Open – No Maturity	-	-	-	-
2. Overnight	-	-	-	-
3. 2 Days to 1 Week	-	-	-	-
4. > 1 Week to 1 Month	-	-	-	-
5. > 1 Month to 3 Months	926,468,750	-	-	-
6. > 3 Months to 1 Year	3,836,527,302	-	-	-
7. > 1 Year	-	-	-	-

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
b. Ending Balance				
1. Open – No Maturity	-	-	-	-
2. Overnight	-	-	-	-
3. 2 Days to 1 Week	-	-	-	-
4. > 1 Week to 1 Month	-	-	-	-
5. > 1 Month to 3 Months	558,137,359	-	-	-
6. > 3 Months to 1 Year	3,207,000,957	-	-	-
7. > 1 Year	-	-	-	-

NOTES TO FINANCIAL STATEMENTS

(4) The company did not have any repurchase agreements where securities sold and/or acquired resulted in default as of March 31, 2020.

(5) Securities "Sold" Under Repo – Secured Borrowing

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. BACV	XXX	XXX	XXX	XXX
Nonadmitted - Subset of				
2. BACV	XXX	XXX	XXX	XXX
3. Fair Value	\$ 4,378,460,718	\$ -	\$ -	\$ -

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
b. Ending Balance				
1. BACV	\$ 3,765,138,316	\$ -	\$ -	\$ -
Nonadmitted - Subset of				
2. BACV	\$ -	\$ -	\$ -	\$ -
3. Fair Value	\$ 3,765,138,316	\$ -	\$ -	\$ -

(6) Securities Sold Under Repo – Secured Borrowing by NAIC Designation

ENDING BALANCE

	1 NONE	2 NAIC 1	3 NAIC 2	4 NAIC 3
a. Bonds - BACV	\$ -	\$ 3,765,138,316	\$ -	\$ -
b. Bonds - FV	-	3,765,138,316	-	-
c. LB & SS - BACV	-	-	-	-
d. LB & SS - FV	-	-	-	-
e. Preferred Stock - BACV	-	-	-	-
f. Preferred Stock - FV	-	-	-	-
g. Common Stock	-	-	-	-
h. Mortgage Loans - BACV	-	-	-	-
i. Mortgage Loans - FV	-	-	-	-
j. Real Estate - BACV	-	-	-	-
k. Real Estate - FV	-	-	-	-
l. Derivatives - BACV	-	-	-	-
m. Derivatives - FV	-	-	-	-
n. Other Invested Assets - BACV	-	-	-	-
o. Other Invested Assets - FV	-	-	-	-
p. Total Assets - BACV	\$ -	\$ 3,765,138,316	\$ -	\$ -
q. Total Assets - FV	\$ -	\$ 3,765,138,316	\$ -	\$ -

ENDING BALANCE

	5 NAIC 4	6 NAIC 5	7 NAIC 6	8 NON- ADMITTED
a. Bonds - BACV	\$ -	\$ -	\$ -	\$ -
b. Bonds - FV	-	-	-	-
c. LB & SS - BACV	-	-	-	-
d. LB & SS - FV	-	-	-	-
e. Preferred Stock - BACV	-	-	-	-
f. Preferred Stock - FV	-	-	-	-
g. Common Stock	-	-	-	-
h. Mortgage Loans - BACV	-	-	-	-
i. Mortgage Loans - FV	-	-	-	-
j. Real Estate - BACV	-	-	-	-
k. Real Estate - FV	-	-	-	-
l. Derivatives - BACV	-	-	-	-
m. Derivatives - FV	-	-	-	-
n. Other Invested Assets - BACV	-	-	-	-
o. Other Invested Assets - FV	-	-	-	-
p. Total Assets - BACV	\$ -	\$ -	\$ -	\$ -
q. Total Assets - FV	\$ -	\$ -	\$ -	\$ -

$$p=a+c+e+g+h+j+l+n$$

$$q=b+d+f+g+i+k+m+o$$

(7) Collateral Received – Secured Borrowing

	FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a. Maximum Amount				
1. Cash	\$ 15,549,000	\$ -	\$ -	\$ -
2. Securities (FV)	\$ 3,866,889,023	\$ -	\$ -	\$ -

b. Ending Balance				
1. Cash	\$ 1,521,411	\$ -	\$ -	\$ -
2. Securities (FV)	\$ 3,776,490,795	\$ -	\$ -	\$ -

(8) Cash & Non-Cash Collateral Received – Secured Borrowing by NAIC Designation

ENDING BALANCE

	1 NONE	2 NAIC 1	3 NAIC 2	4 NAIC 3
a. Cash	\$ 1,521,411	\$ -	\$ -	\$ -
b. Bonds - FV	-	3,776,490,795	-	-
c. LB & SS - FV	-	-	-	-
d. Preferred Stock - FV	-	-	-	-
e. Common Stock	-	-	-	-
f. Mortgage Loans - FV	-	-	-	-
g. Real Estate - FV	-	-	-	-
h. Derivatives - FV	-	-	-	-
i. Other Invested Assets - FV	-	-	-	-
Total Collateral Assets - FV (Sum of a through i)	\$ 1,521,411	\$ 3,776,490,795	\$ -	\$ -

NOTES TO FINANCIAL STATEMENTS

ENDING BALANCE

		5	6	7	8
		NAIC 4	NAIC 5	NAIC 6	DOES NOT QUALIFY AS ADMITTED
a.	Cash	\$ -	\$ -	\$ -	\$ -
b.	Bonds - FV	-	-	-	-
c.	LB & SS - FV	-	-	-	-
d.	Preferred Stock - FV	-	-	-	-
e.	Common Stock	-	-	-	-
f.	Mortgage Loans - FV	-	-	-	-
g.	Real Estate - FV	-	-	-	-
h.	Derivatives - FV	-	-	-	-
i.	Other Invested Assets - FV	-	-	-	-
	Total Collateral Assets - FV	-	-	-	-
j.	(Sum of a through i)	\$ -	\$ -	-	-

(9) Allocation of Aggregate Collateral by Remaining Contractual Maturity

		FAIR VALUE
a.	Overnight and Continuous	\$ -
b.	30 Days or Less	\$ 2,290,733,981
c.	31 to 90 Days	\$ 1,474,404,334
d.	> 90 Days	\$ -

(10) The company did not have any repurchase agreements where cash collateral received was reinvested as of March 31, 2020.

(11) Liability to Return Collateral – Secured Borrowing (Total)

		FIRST QUARTER	SECOND QUARTER	THIRD QUARTER	FOURTH QUARTER
a.	Maximum Amount				
1.	Cash (Collateral – All)	\$ 15,549,000	\$ -	\$ -	\$ -
2.	Securities Collateral (FV)	\$ 3,866,889,023	\$ -	\$ -	\$ -
b.	Ending Balance				
1.	Cash (Collateral – All)	\$ 1,521,411	\$ -	\$ -	\$ -
2.	Securities Collateral (FV)	\$ 3,776,490,795	\$ -	\$ -	\$ -

- g. Reverse repurchase agreements transactions accounted for as secured borrowing: The Company did not have any reverse repurchase agreements transactions accounted for as secured borrowing as of March 31, 2020.
- h. Repurchase agreements transactions accounted for as a sale: The Company did not have any repurchase agreements transactions accounted for as a sale as of March 31, 2020.
- i. Reverse repurchase agreements transactions accounted for as a sale: The Company did not have any reverse repurchase agreements transactions accounted for as a sale as of March 31, 2020.
- j. Real estate - No change
- k. Low-Income Housing Tax Credit - No change
- l. Restricted Assets - No change
- m. Working capital finance investments: The Company did not invest in working capital finance investments as of March 31, 2020.
- n. 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 as of March 31, 2020.
- o. 5GI Securities:

Investment	Number of 5GI Securities		Aggregate BACV		Aggregate Fair Value	
	Current Year	Prior Year	Current Year	Prior Year	Current Year	Prior Year
(1) Bonds - AC	104	97	\$696,074,683	\$759,073,078	\$657,032,216	\$757,268,976
(2) LB&SS - AC	2	2	13,299,582	13,654,948	11,983,100	12,071,185
(3) Preferred Stock - AC	2	3	12,642,000	12,685,809	19,739,769	19,827,090
(4) Preferred Stock - FV	2	1	632,094	598,111	632,094	598,111
(5) Total (1+2+3+4)	110	103	\$722,648,359	\$786,011,946	\$689,387,179	\$789,765,362

AC - Amortized Cost FV - Fair Value

p. Short Sales - The Company does not engage in short sale transactions.

q. Prepayment Penalty and Acceleration Fees:

	Three Months Ended March 31, 2020	
	General Account	Separate Account
1. Number of CUSIPS	24	12
2. Aggregate Amount of Investment Income	\$ 10,397,088	\$ 1,877,554

Note 6 – Joint Ventures, Partnerships and Limited Liability Companies - No change**Note 7 – Investment Income** – No change**Note 8 – Derivative Instruments**

a. The Company did not have any deferred derivative premium payments under SSAP No. 86.

NOTES TO FINANCIAL STATEMENTS

- b. The Company did not account for any derivatives under SSAP No. 108 in 2020.

Note 9 – Income Taxes

In response to the COVID-19 pandemic, the Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law on March 27, 2020. The CARES Act, among other things, permits net operating loss (NOL) carryovers and carrybacks to offset 100% of taxable income for taxable years beginning before 2021. In addition, the CARES Act allows NOLs incurred in 2018, 2019, and 2020 to be carried back to each of the five preceding taxable years to generate a refund of previously paid income taxes. The Company is currently evaluating the impact of the CARES Act, but does not expect that the business tax provisions of the CARES Act to have a material impact on the financial statements.

Note 10 – Information Concerning Parent, Subsidiaries and Affiliates

- a-c. MassMutual Holding LLC (MMHLLC) paid \$200,000,000 in dividends to MassMutual for the three months ended March 31, 2020, which were declared in 2019, and paid \$650,000,000 in dividends for the three months ended March 31, 2019, which were declared in 2018.

MassMutual contributed capital of \$13,505,107 to MMHLLC for the three months ended March 31, 2020 and \$10,000,000 for the three months ended March 31, 2019.

- d-f. No change

- 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 could 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 \$893,287,628 as of March 31, 2020.

- (2) FHLB Boston capital stock

- a. Aggregate totals:

		March 31, 2020		
		1	2	3
		Total	General	Separate
		2+3	Account	Account
1.	Current Year:			
	(a) Membership stock - Class A	\$ -	\$ -	-
	(b) Membership stock - Class B	10,000,000	10,000,000	-
	(c) Activity Stock	44,000,000	44,000,000	-
	(d) Excess Stock	5,400,000	5,400,000	-
	(e) Aggregate Total	\$ 59,400,000	\$ 59,400,000	\$ -
	(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	10,000,000	10,000,000	-
	(c) Activity Stock	44,000,000	44,000,000	-
	(d) Excess Stock	5,400,000	5,400,000	-
	(e) Aggregate Total	\$ 59,400,000	\$ 59,400,000	\$ -
	(f) Actual or Estimated Borrowing Capacity as determined by the Insurer	\$ 2,000,000,000	\$ 2,000,000,000	\$ -

NOTES TO FINANCIAL STATEMENTS

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

Membership Stock	Three Months Ended March 31, 2020					
	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	10,000,000	10,000,000	-	-	-	-

(3) Collateral pledged to FHLB:

a. Amount pledged as of March 31, 2020:

1. Current year total general and separate accounts:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,682,133,114	\$ 1,312,973,234	\$ 1,106,712,372

2. Current year general account:

	Fair Value	Carrying Value	Aggregate Total Borrowing
Total collateral pledged	\$ 1,682,133,114	\$ 1,312,973,234	\$ 1,106,712,372

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	\$ 1,671,947,715	\$ 1,301,089,185	\$ 1,104,094,100

b. Maximum amount pledged for the three months ended March 31, 2020:

1. Current year total general and separate accounts:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,784,206,795	\$ 1,385,293,120	\$ 1,108,687,100

2. Current year general account:

	Fair Value	Carrying Value	Amount Borrowed at Time of Maximum Collateral
Maximum collateral pledged	\$ 1,784,206,795	\$ 1,385,293,120	\$ 1,108,687,100

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	\$ 1,707,233,260	\$ 1,328,588,172	\$ 1,108,636,992

NOTES TO FINANCIAL STATEMENTS

(4) Borrowing from FHLB:

a. Amount:

1. Current year:

	March 31, 2020			
	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	1,106,712,372	1,106,712,372	-	1,106,712,372
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 1,106,712,372</u>	<u>\$ 1,106,712,372</u>	<u>\$ -</u>	<u>\$ 1,106,712,372</u>

2. Prior Year-end:

	December 31, 2019			
	1 Total 2+3	2 General Account	3 Separate Account	4 Funding Agreements Reserves Established
(a) Debt	\$ -	\$ -	\$ -	\$ -
(b) Funding agreements	1,104,094,100	1,104,094,100	-	1,104,094,100
(c) Other	-	-	-	-
(d) Aggregate total	<u>\$ 1,104,094,100</u>	<u>\$ 1,104,094,100</u>	<u>\$ -</u>	<u>\$ 1,104,094,100</u>

b. Maximum Amount:

	Three Months Ended March 31, 2020		
	1 Total 2+3	2 General Account	3 Separate Account
1. Debt	\$ -	\$ -	\$ -
2. Funding	1,108,687,100	1,108,687,100	-
3. Other	-	-	-
4. Aggregate	<u>\$ 1,108,687,100</u>	<u>\$ 1,108,687,100</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 and retirees who meet plan eligibility requirements.

(2-3) No change

	Three Months Ended March 31,					
	2020		2019		2020	
	Pension Benefits		Postretirement Benefits		Special or Contractual Benefits per SSAP No 11	

(4) Components of net periodic benefit cost

a. Service cost	\$ 28,573,592	\$ 27,734,491	\$ 3,725,000	\$ 3,300,000	\$ -	\$ -
b. Interest cost	24,388,746	29,414,962	2,850,000	3,375,000	-	-
c. Expected return on plan assets	(44,166,300)	(39,876,773)	-	(25,000)	-	-
d. Transition asset or obligation	-	-	-	-	-	-
e. Gains and losses	13,048,317	14,123,368	625,000	(50,000)	-	-
f. Prior service cost or (credit)	-	-	(1,375,000)	(1,375,000)	-	-
g. Gain or loss recognized due to settlement or curtailment	-	-	-	-	-	-
h. Total net periodic benefit cost	<u>\$ 21,844,355</u>	<u>\$ 31,396,048</u>	<u>\$ 5,825,000</u>	<u>\$ 5,225,000</u>	<u>\$ -</u>	<u>\$ -</u>

(5-21) No change

b-i. No change

NOTES TO FINANCIAL STATEMENTS

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

(1-3) No change

(4) The Company is a mutual company, and as such does not pay stockholders' dividends.

(5-13) No change

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. Joint and several liabilities - No change

f. All other contingencies:

In the normal course of business, the Company is involved in disputes, litigation and governmental or regulatory inquiries, administrative proceedings, examinations and investigations, both pending and threatened. These matters, if resolved adversely against the Company or settled, may result in monetary damages, fines and penalties or require changes in the Company's business practices. The resolution or settlement of these matters is inherently difficult to predict. Based upon the Company's assessment of these pending matters, the Company does not believe that the amount of any judgment, settlement or other action arising from any pending matter is likely to have a material adverse effect on the statement of financial position. However, an adverse outcome in certain matters could have a material adverse effect on the results of operations for the period in which such matter is resolved, or an accrual is determined to be required, on the financial statement financial position, or on our reputation.

The Company evaluates the need for accruals of loss contingencies for each matter. When a liability for a matter is probable and can be estimated, the Company accrues an estimate of the loss and any related insurance recoveries, if any. An accrual is subject to subsequent adjustment as a result of additional information and other developments. The resolution of matters are inherently difficult to predict, especially in the early stages of matter. Even if a loss is probable, due to many complex factors, such as speed of discovery and the timing of court decisions or rulings, a loss or range of loss may not be reasonably estimated until the later stages of the matter. For matters where a loss is material and it is either probable or reasonably possible then it is disclosed. For matters where a loss may be reasonably possible, but not probable, or is probable but not reasonably estimated, no accrual is established, but the matter, if material, is disclosed.

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 2020 or 2019.

(3) No change

(4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2020 or 2019.

(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, or unrated, through the three months ended March 31, 2020 that were reacquired within 30 days of the sale date.

Note 18 – Gain or Loss to the Reporting Entity from Uninsured Plans and the Uninsured Portion of Partially Insured Plans - No change

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

Note 20 – Fair Value Measurements

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

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

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

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

When available, the Company generally uses unadjusted quoted market prices from independent sources to determine the fair value of investments, and classifies such items within Level 1 of the fair value hierarchy. If quoted prices are not available, prices are derived from observable market data for similar assets in an active market or obtained directly from brokers for identical assets traded in inactive

NOTES TO FINANCIAL STATEMENTS

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.

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

	March 31, 2020			Net Asset Value (NAV)	Total
	Level 1	Level 2	Level 3		
Financial assets:					
Bonds:					
Industrial and miscellaneous	\$ 10,102,823	\$ 236,002,982	\$ 104,973,354	\$ -	\$ 351,079,159
Preferred stocks	-	-	10,760,972	-	10,760,972
Common stock - subsidiaries and affiliates	92,104,235	-	146,905,162	-	239,009,397
Common stock - unaffiliated	593,410,000	-	268,713,935	-	862,123,935
Derivatives:					
Interest rate swaps	-	25,452,630,505	-	-	25,452,630,505
Options	134,491,347	611,019,871	-	-	745,511,218
Currency swaps	-	2,921,737,133	-	-	2,921,737,133
Forward contracts	-	273,213,676	-	-	273,213,676
Financial futures	581,903,326	-	-	-	581,903,326
Separate account assets	39,308,863,655	21,262,185,208	1,025,819,508	-	61,596,868,371
Total financial assets carried at fair value	\$ 40,720,875,386	\$ 50,756,789,375	\$ 1,557,172,931	\$ -	\$ 93,034,837,692
Financial liabilities:					
Interest rate swaps	\$ -	\$ 21,145,310,361	\$ -	\$ -	\$ 21,145,310,361
Options	21,173,619	-	-	-	21,173,619
Currency swaps	-	15,603,629	-	-	15,603,629
Forward contracts	-	93,036,417	-	-	93,036,417
Credit default swaps	-	19,230	-	-	19,230
Financial futures	75,805,506	-	-	-	75,805,506
Total financial liabilities carried at fair value	\$ 96,979,125	\$ 21,253,969,637	\$ -	\$ -	\$ 21,350,948,762

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, 2020, there were derivative transfers between Level 2 and Level 1 for options and futures are priced using quoted marks. The Company does not have any financial instruments that were carried at NAV as a practical expedient.

NOTES TO FINANCIAL STATEMENTS

December 31, 2019

	December 31, 2019				
	Level 1	Level 2	Level 3	Net Asset Value (NAV)	Total
Financial assets:					
Bonds:					
Industrial and miscellaneous	10,059,967	143,325,225	110,728,451	-	264,113,643
Preferred stocks	-	-	12,738,794	-	12,738,794
Common stock - subsidiaries and affiliates	162,056,329	-	119,810,155	-	281,866,484
Common stock - unaffiliated	916,943,969	-	267,976,515	-	1,184,920,484
Derivatives:					
Interest rate swaps	-	10,571,406,154	-	-	10,571,406,154
Options	40,446,258	534,068,767	-	-	574,515,025
Currency swaps	-	879,667,787	-	-	879,667,787
Forward contracts	-	11,413,071	-	-	11,413,071
Financial futures	5,333,000	-	-	-	5,333,000
Separate account assets	48,151,046,994	21,112,660,457	966,991,735	-	70,230,699,186
Total financial assets carried at fair value	\$ 49,285,886,517	\$ 33,252,541,461	\$ 1,478,245,650	\$ -	\$ 84,016,673,628
Financial liabilities:					
Derivatives:					
Interest rate swaps	\$ -	\$ 9,122,852,015	\$ -	\$ -	\$ 9,122,852,015
Options	2,121,215	-	-	-	2,121,215
Currency swaps	-	212,243,023	-	-	212,243,023
Forward contracts	-	157,870,365	-	-	157,870,365
Credit default swaps	-	41,515	-	-	41,515
Financial futures	113,113,033	-	-	-	113,113,033
Total financial liabilities carried at fair value	\$ 115,234,248	\$ 9,493,006,918	\$ -	\$ -	\$ 9,608,241,166

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

	Balance as of 01/01/2020	Transfers ⁽¹⁾		Gains (Losses) in Net Income	Gains (Losses) in Surplus	Purchases	Issuances	Sales	Settlements	Balance as of 3/31/2020
		In	Out							
Financial assets:										
Bonds:										
Industrial and miscellaneous	\$ 110,728,451	\$ 32,697,541	\$ (28,026,870)	\$ 44,000	\$ (10,517,379)	\$ 215,145	\$ (38,206)	\$ -	\$ (129,327)	\$ 104,973,355
Preferred stock	12,738,793	87,321	-	-	(2,086,472)	21,330	-	-	-	10,760,972
Common stock - subsidiaries and affiliates	119,810,156	51,495,509	-	-	(36,948,373)	1,822,331	11,681,669	-	(956,129)	146,905,163
Common stock - unaffiliated	267,976,515	-	-	936,307	44,671	2,140,627	126	-	(2,384,312)	268,713,934
Separate account assets	966,991,734	-	-	(8,360,840)	-	55,510,805	-	11,721,603	(43,795)	1,025,819,507
Total financial assets	\$ 1,478,245,649	\$ 84,280,371	\$ (28,026,870)	\$ (7,380,533)	\$ (49,507,553)	\$ 59,710,238	\$ 11,643,589	\$ 11,721,603	\$ (3,513,563)	\$ 1,557,172,931

⁽¹⁾Level 3 transfers include 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 in other transfers are assets that are no longer carried at fair value.

	Balance as of 01/01/2019	Transfers ⁽¹⁾		Gains (Losses) in Net Income	Gains (Losses) in Surplus	Purchases	Issuances	Sales	Settlements	Balance as of 12/31/2019
		In	Out							
Financial assets:										
Bonds:										
Industrial and miscellaneous	\$ 63,859,896	\$ 25,906,103	\$ -	\$ (1,460,481)	\$ (1,955,477)	\$ 28,413,133	\$ 867,449	\$ -	\$ (4,902,172)	\$ 110,728,451
Parent, subsidiaries, and affiliates	65,576,875	(57,456,875)	(8,120,000)	-	-	-	-	-	-	-
Preferred Stock	287,758	11,586,927	-	-	(666,240)	1,530,348	-	-	-	12,738,793
Common stock - subsidiaries and affiliates	164,920,846	-	-	824,411	(40,158,005)	534,956	-	-	(6,312,052)	119,810,156
Common stock - unaffiliated	305,537,860	-	(155,168)	18,461,974	9,072,337	4,344,119	-	(60,172,286)	(9,112,321)	267,976,515
Separate account assets	550,652,512	-	-	42,008,099	-	797,174,041	-	(422,641,710)	(201,208)	966,991,734
Total financial assets	\$ 1,150,835,747	\$ (19,963,845)	\$ (8,275,168)	\$ 59,834,003	\$ (33,707,385)	\$ 831,996,597	\$ 867,449	\$ (482,813,996)	\$ (20,527,753)	\$ 1,478,245,649

⁽¹⁾Level 3 transfers include 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. The common stock unaffiliated assets were transferred from Level 2 to Level 3 due to a change in the observability of pricing inputs.

(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.

NOTES TO FINANCIAL STATEMENTS

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, 2020					Net	Not
		Aggregate	Admitted				Asset	Practicable
		Fair Value	Assets	Level 1	Level 2	Level 3	Value	(Carrying
							(NAV)	Value)
Financial assets:								
Bonds:								
U. S. government and agencies	\$	5,293,800,231	\$ 4,223,536,557	\$ -	\$ 5,293,542,914	\$ 257,317	\$ -	-
All other governments		1,505,938,619	1,501,808,686	-	1,439,367,414	66,571,205	-	-
States, territories and possessions		548,821,352	493,745,109	-	548,821,352	-	-	-
Political subdivisions		513,784,517	471,155,672	-	513,784,517	-	-	-
Special revenue		6,747,006,599	5,855,600,993	-	6,736,905,050	10,101,549	-	-
Industrial and miscellaneous		84,848,241,259	84,880,912,557	10,102,823	47,064,963,000	37,773,175,436	-	-
Parent, subsidiaries and affiliates		7,451,408,459	7,262,314,880	-	182,700,000	7,268,708,459	-	-
Preferred stocks		745,102,943	738,744,242	10,867,200	-	734,235,743	-	-
Common stocks - subsidiaries and affiliates ⁽¹⁾		239,009,396	239,009,396	92,104,235	-	146,905,161	-	-
Common stocks - unaffiliated		862,123,935	862,123,935	593,410,000	-	268,713,935	-	-
Mortgage loans - commercial		25,688,300,795	24,332,104,504	-	-	25,688,300,795	-	-
Mortgage loans - residential		3,626,569,630	3,641,400,370	-	-	3,626,569,630	-	-
Cash, cash equivalents and short-term investments		12,094,044,244	12,094,044,244	97,459,431	11,996,584,813	-	-	-
Derivatives:								
Interest rate swaps		30,764,826,890	25,452,630,505	-	30,764,826,890	-	-	-
Options		745,511,218	745,511,218	134,491,347	611,019,871	-	-	-
Currency swaps		2,921,737,133	2,921,737,133	-	2,921,737,133	-	-	-
Forward contracts		273,213,676	273,213,676	-	273,213,676	-	-	-
Financial futures		581,903,326	581,903,326	581,903,326	-	-	-	-
Separate account assets		61,596,868,371	61,596,868,371	39,308,863,655	21,262,185,208	1,025,819,508	-	-
Financial liabilities:								
Repurchase agreements		3,765,138,316	3,765,138,316	-	3,765,138,316	-	-	-
Commercial paper		249,776,977	249,776,977	-	249,776,977	-	-	-
Guaranteed interest contracts		11,532,230,568	11,041,141,414	-	-	11,532,230,568	-	-
Group annuity contracts and other deposits		19,306,933,866	18,204,301,137	-	-	19,306,933,866	-	-
Individual annuity contracts		12,158,850,163	10,369,737,325	-	-	12,158,850,163	-	-
Supplementary contracts		1,154,806,361	1,153,727,376	-	-	1,154,806,361	-	-
Derivatives:								
Interest rate swaps		22,922,470,580	21,145,310,360	-	22,922,470,580	-	-	-
Options		21,173,619	21,173,619	21,173,619	-	-	-	-
Currency swaps		15,603,628	15,603,628	-	15,603,628	-	-	-
Forward contracts		93,036,417	93,036,417	-	93,036,417	-	-	-
Credit default swaps		5,897,155	8,700,934	-	5,897,155	-	-	-
Financial futures		75,805,507	75,805,507	75,805,507	-	-	-	-

⁽¹⁾Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had a statutory carrying value of \$16,885,338,654.

NOTES TO FINANCIAL STATEMENTS

December 31, 2019

	Aggregate	Admitted				Net	Not
	Fair Value	Assets	Level 1	Level 2	Level 3	Asset	Practicable
						Value	(Carrying
						(NAV)	Value)
Financial assets:							
Bonds:							
U. S. government and agencies	\$ 4,944,813,863	\$ 4,361,446,504	\$ -	\$ 4,944,512,040	\$ 301,823	\$ -	\$ -
All other governments	1,761,768,394	1,588,793,740	-	1,692,560,006	69,208,388	-	-
States, territories and possessions	603,388,261	547,324,998	-	603,388,261	-	-	-
Political subdivisions	568,413,976	516,803,983	-	568,413,976	-	-	-
Special revenue	6,593,876,709	5,806,872,690	-	6,584,065,715	9,810,995	-	-
Industrial and miscellaneous	88,204,808,602	82,585,620,351	10,059,967	48,713,480,044	39,481,268,591	-	-
Parent, subsidiaries and affiliates	6,657,136,590	6,499,768,623	-	380,424,135	6,276,712,455	-	-
Preferred stocks	786,700,614	748,884,136	11,139,411	-	775,561,204	-	-
Common stock - subsidiaries and affiliates ⁽¹⁾	281,866,483	281,866,483	162,056,328	-	119,810,155	-	-
Common stock - unaffiliated	1,184,920,484	1,184,920,484	916,943,969	-	267,976,515	-	-
Mortgage loans - commercial	25,090,464,649	24,162,347,747	-	-	25,090,464,649	-	-
Mortgage loans - residential	3,304,250,994	3,310,547,119	-	-	3,304,250,994	-	-
Cash, cash equivalents and short-term investments	3,793,098,998	3,793,098,998	205,877,895	3,587,221,103	-	-	-
Derivatives:							
Interest rate swaps	11,983,096,154	10,571,406,154	-	11,983,096,154	-	-	-
Options	574,515,025	574,515,025	40,466,258	534,048,767	-	-	-
Currency swaps	879,667,787	879,667,787	-	879,667,787	-	-	-
Forward contracts	11,413,071	11,413,071	-	11,413,071	-	-	-
Credit default swaps	30,061,258	21,371,258	-	30,061,258	-	-	-
Financial futures	5,333,000	5,333,000	5,333,000	-	-	-	-
Separate account assets	70,230,699,186	70,230,699,186	48,151,046,994	21,112,660,457	966,991,735	-	-
Financial liabilities:							
Repurchase agreements	3,833,921,752	3,833,921,752	-	3,833,921,752	-	-	-
Commercial paper	249,869,729	249,869,729	-	249,869,729	-	-	-
Guaranteed investment contracts	9,909,448,856	9,815,338,001	-	-	9,909,448,856	-	-
Group annuity contracts and other deposits	18,600,168,805	17,962,775,303	-	-	18,600,168,805	-	-
Individual annuity contracts	10,317,102,621	8,337,781,385	-	-	10,317,102,621	-	-
Supplementary contracts	1,185,876,391	1,184,785,524	-	-	1,185,876,391	-	-
Derivatives:							
Interest rate swaps	9,970,742,015	9,122,852,015	-	9,970,742,015	-	-	-
Options	2,121,215	2,121,215	2,121,215	-	-	-	-
Currency swaps	212,243,023	212,243,023	-	212,243,023	-	-	-
Forward contracts	157,870,365	157,870,365	-	157,870,365	-	-	-
Credit default swaps	218,360	218,360	-	218,360	-	-	-
Financial futures	113,113,033	113,113,033	113,113,033	-	-	-	-

⁽¹⁾Common stocks - subsidiaries and affiliates do not include unconsolidated subsidiaries, which had statutory carrying values of \$16,688,837,017.

d. As of March 31, 2020 and December 31, 2019, 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:

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 2019 Annual Statement.

Insurance and underwriting risks

The Company prices its products based on estimated benefit payments reflecting assumptions with respect to mortality, morbidity, longevity, persistency, interest rates and other factors. If actual policy experience emerges that is significantly and adversely different from assumptions used in product pricing, the effect could be material to the profitability of the Company. For participating whole life products, the Company's dividends to policyholders primarily reflect the difference between actual investment, mortality, expense and persistency experience and the experience embedded in the whole life premiums and guaranteed elements. The Company also reinsures certain life insurance and other long-term care insurance policies to mitigate the impact of its underwriting risk.

NOTES TO FINANCIAL STATEMENTS

Investment and interest rate risks

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

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.

The spread of the coronavirus, causing increased cases of COVID-19, around the world in the first quarter of 2020 has caused significant volatility in U.S. and international markets. There is significant uncertainty around the breadth and duration of business disruptions related to COVID-19, as well as its impact on the U.S. and international economies. At this time, the Company is not able to reliably estimate the length and severity of the COVID-19 public health crises and, as such, cannot quantify its impact on the financial results, liquidity and capital resources and its operations in future periods.

- 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) Direct exposure through other investments.

Alt-A:	March 31, 2020			Three Months Ended March 31, 2020
	Actual Cost	Carrying Value	Fair Value	OTTI
a. Residential mortgage-backed securities	\$ 301,641,184	\$ 337,312,985	\$ 328,532,005	\$ 212,102
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	15,300,850	\$ 17,490,853	\$ 16,530,398	\$ 1,630
f. Other assets	-	-	-	-
g. Total	<u>\$ 316,942,034</u>	<u>\$ 354,803,838</u>	<u>\$ 345,062,403</u>	<u>\$ 213,732</u>

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

Alt-A:	December 31, 2019			Year Ended December 31, 2019
	Actual Cost	Carrying Value	Fair Value	OTTI
a. Residential mortgage-backed securities	\$ 286,967,179	\$ 323,109,149	\$ 355,764,199	\$ 955,232
b. Commercial mortgage-backed securities	-	-	-	-
c. Collateralized debt obligations	-	-	-	-
d. Structured securities	-	-	-	-
e. Equity investments in SCAs *	13,275,749	15,608,817	17,280,669	42,030
f. Other assets	-	-	-	-
g. Total	<u>\$ 300,242,928</u>	<u>338,717,966</u>	<u>373,044,868</u>	<u>997,262</u>

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

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

g. Retained asset accounts - No change

Note 22 – Events Subsequent

Management of the Company has evaluated subsequent events through May 15, 2020, the date the financial statements were available to be issued to state regulators and subsequently on the Company's website. No events have occurred subsequent to the date of the financial statements, except for:

On April 16, 2020, MassMutual issued approximately \$700,000,000 of surplus notes at a fixed 3.375% coupon rate maturing in 2050.

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 2020 for incurred losses and loss adjustment expenses attributable to insured events of prior years, which 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 – Analysis of Life Actuarial Reserves by Withdrawal Characteristics - No change

Note 34 – Premium and Annuity Considerations Deferred and Uncollected - No change

NOTES TO FINANCIAL STATEMENTS

Note 35 – Separate Accounts

General nature and characteristics of separate account business:

The Company has guaranteed separate accounts classified as the following: nonindexed, which have reserve interest rates at no greater than 4% and/or to fund a long-term interest guarantee in excess of a year that does not exceed 4%. The Company has nonguaranteed separate accounts that are variable accounts where the benefit is determined by the performance and/or market value of the investments held in the separate account with incidental risk, notional expense and minimum death benefit guarantees.

Information regarding the separate accounts of the Company as of and for the three months ended March 31, 2020 is as follows:

	Indexed	Nonindexed Guarantee Less than/ Equal to 4%	Nonindexed Guarantee More than 4%	Nonguaranteed Separate Accounts	Total
(1) Premiums, considerations or deposits for the three months ended March 31, 2020	\$ -	\$ -	\$ -	\$ 6,249,085,696	\$ 6,249,085,696
Reserves at March 31, 2020					
(2) For accounts with assets at:					
a. Fair value	\$ -	\$ 18,282,852,127	\$ -	\$ 41,122,525,174	\$ 59,405,377,301
b. Nonpolicy liabilities	-	-	-	611,015,479	611,015,479
c. Amortized cost	-	1,580,475,591	-	-	1,580,475,591
d. Total Reserves*	\$ -	\$ 19,863,327,718	\$ -	\$ 41,733,540,653	\$ 61,596,868,371
(3) By withdrawal characteristics:					
a. Subject to discretionary withdrawal:	\$ -	\$ -	\$ -	\$ -	-
1. With market value adjustment	-	-	-	-	-
2. At book value without market value adjustment and with current surrender charge of 5% or more	-	-	-	-	-
3. At fair value	-	17,740,851,569	-	41,122,525,174	58,863,376,743
4. At book value, without market value adjustment and with current surrender charge of less than 5%	-	2,122,476,149	-	-	2,122,476,149
5. Nonpolicy liabilities	-	-	-	611,015,479	611,015,479
6. Subtotal	\$ -	\$ 19,863,327,718	\$ -	\$ 41,733,540,653	\$ 61,596,868,371
b. Not subject to discretionary withdrawal	-	-	-	-	-
c. Total	\$ -	\$ 19,863,327,718	\$ -	\$ 41,733,540,653	\$ 61,596,868,371
(4) Reserves for Assets Default Risk in Lieu of AVR	\$ -	\$ -	\$ -	\$ -	-

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

Note 36 – 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.
- 3.4 Is the reporting entity publicly traded or a member of a publicly traded group? Yes [] No [X]
- 3.5 If the response to 3.4 is yes, provide the CIK (Central Index Key) code issued by the SEC for the entity/group.
- 4.1 Has the reporting entity been a party to a merger or consolidation during the period covered by this statement? Yes [] No [X]
If yes, complete and file the merger history data file with the NAIC.
- 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. 12/31/2019
- 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?
- 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 Global Advisers 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
The MassMutual Trust Company, OCC	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 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
- 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
- 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 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 No
- 11.2 If yes, give full and complete information relating thereto:
12. Amount of real estate and mortgages held in other invested assets in Schedule BA: \$1,887,119,667
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 No
- 14.2 If yes, please complete the following:
- | | 1
Prior Year-End
Book/Adjusted
Carrying Value | 2
Current Quarter
Book/Adjusted
Carrying Value |
|---|--|---|
| 14.21 Bonds | \$ 6,499,768,623 | \$ 7,262,314,880 |
| 14.22 Preferred Stock | \$ | \$ |
| 14.23 Common Stock | \$ 16,713,885,643 | \$ 17,122,793,458 |
| 14.24 Short-Term Investments | \$ | \$ |
| 14.25 Mortgage Loans on Real Estate | \$ | \$ |
| 14.26 All Other | \$ 5,768,552,842 | \$ 5,852,115,364 |
| 14.27 Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26) | \$ 28,982,207,108 | \$ 30,237,223,702 |
| 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 No
- 15.2 If yes, has a comprehensive description of the hedging program been made available to the domiciliary state? Yes No N/A
 If no, attach a description with this statement.
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. \$

GENERAL INTERROGATORIES

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
Apollo Aviation Group Capital Markets LLC	U
Invesco Ltd.	U
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
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 invested 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 invested 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
168456	Apollo Aviation Group Capital Markets LLC		SEC	NO
110363	Invesco Ltd.		SEC	DS
106006	Barings LLC		SEC	DS
104517	Franklin Advisers, Inc.		SEC	NO
123711	Tortoise Capital Advisors, L.L.C.		SEC	NO
104559	PIMCO- Pacific Investment Management Company LLC		SEC	NO
107926	Earnest Partners LLC		SEC	NO
162754	IFM Investors Pty Ltd		SEC	NO
185402	Ashmore Investment Management Limited		SEC	NO
162264	Jefferies Finance LLC		SEC	DS
155480	20 Gates Management, LLC		SEC	NO

STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

- 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 03/31/2020, 39 issues for 33 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 \$701,490,131 or 0.57% of all assets.
19. By self-designating 5GI securities, the reporting entity is certifying the following elements for each self-designated 5GI security:
 a. Documentation necessary to permit a full credit analysis of the security does not exist or an NAIC CRP credit rating for an FE or PL security is not available.
 b. Issuer or obligor is current on all contracted interest and principal payments.
 c. The insurer has an actual expectation of ultimate payment of all contracted interest and principal.
 Has the reporting entity self-designated 5GI securities? Yes [X] No []
20. By self-designating PLGI securities, the reporting entity is certifying the following elements of each self-designated PLGI security:
 a. The security was purchased prior to January 1, 2018.
 b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
 c. The NAIC Designation was derived from the credit rating assigned by an NAIC CRP in its legal capacity as a NRSRO which is shown on a current private letter rating held by the insurer and available for examination by state insurance regulators.
 d. The reporting entity is not permitted to share this credit rating of the PL security with the SVO.
 Has the reporting entity self-designated PLGI securities? Yes [] No [X]
21. By assigning FE to a Schedule BA non-registered private fund, the reporting entity is certifying the following elements of each self-designated FE fund:
 a. The shares were purchased prior to January 1, 2019.
 b. The reporting entity is holding capital commensurate with the NAIC Designation reported for the security.
 c. The security had a public credit rating(s) with annual surveillance assigned by an NAIC CRP in its legal capacity as an NRSRO prior to January 1, 2019.
 d. The fund only or predominantly holds bonds in its portfolio.
 e. The current reported NAIC Designation was derived from the public credit rating(s) with annual surveillance assigned by an NAIC CRP in its legal capacity as an NRSRO.
 f. The public credit rating(s) with annual surveillance assigned by an NAIC CRP has not lapsed.
 Has the reporting entity assigned FE to Schedule BA non-registered private funds that complied with the above criteria? Yes [X] No []

GENERAL INTERROGATORIES

PART 2 - LIFE AND ACCIDENT AND HEALTH COMPANIES/FRATERNAL BENEFIT SOCIETIES

Life and Accident Health Companies/Fraternal Benefit Societies:

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 | \$ |
| 1.12 Residential Mortgages | \$ 3,641,400,370 |
| 1.13 Commercial Mortgages | \$ 24,332,104,505 |
| 1.14 Total Mortgages in Good Standing | \$ 27,973,504,875 |
| 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) | \$ 27,973,504,875 |
| 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 | % |
| 2.2 A&H cost containment percent | % |
| 2.3 A&H expense percent excluding cost containment expenses | % |
| 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 | \$ |
| 4. Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states? | Yes [X] No [] |
| 4.1 If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of domicile of the reporting entity? | Yes [] No [] |

Fraternal Benefit Societies Only:

- 5.1 In all cases where the reporting entity has assumed accident and health risks from another company, provisions should be made in this statement on account of such reinsurances for reserve equal to that which the original company would have been required to establish had it retained the risks. Has this been done?
- Yes [] No [] N/A []
- 5.2 If no, explain:
- 6.1 Does the reporting entity have outstanding assessments in the form of liens against policy benefits that have increased surplus?
- Yes [] No []
- 6.2 If yes, what is the date(s) of the original lien and the total outstanding balance of liens that remain in surplus?

Date	Outstanding Lien Amount
.....

STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE S - CEDED REINSURANCE

Showing All New Reinsurance Treaties - Current Year to Date

1	2	3	4	5	6	7	8	9	10
NAIC Company Code	ID Number	Effective Date	Name of Reinsurer	Domiciliary Jurisdiction	Type of Reinsurance Ceded	Type of Business Ceded	Type of Reinsurer	Certified Reinsurer Rating (1 through 6)	Effective Date of Certified Reinsurer Rating
80659	82-4533188	01/01/2020	Canada Life Assurance Co. (CRH3)	MI	YRT/I	OL	Authorized		
86258	13-2572994	09/01/2019	General Re Life Corp. (GRPL)	CT	YRT/I	OL	Authorized		
88340	59-2859797	01/01/2020	Hannover Life Reassurance (HAS3)	FL	YRT/G	OL	Authorized		
66346	58-0828824	01/01/2020	Munich American Reassurance (MAH3)	GA	YRT/I	OL	Authorized		
66346	58-0828824	02/22/2020	Munich American Reassurance (MUT3)	GA	CO/I	XXXL	Authorized		
66346	58-0828824	02/22/2020	Munich American Reassurance (MUT3)	GA	YRT/I	OL	Authorized		
66346	58-0828824	02/22/2020	Munich American Reassurance (MUTB)	GA	CO/I	XXXL	Authorized		
66346	58-0828824	02/22/2020	Munich American Reassurance (MUTR)	GA	CO/I	XXXL	Authorized		
88099	75-1608507	11/23/2019	Optimum Re Insurance Company (OPB8)	TX	YRT/I	OL	Authorized		
88099	75-1608507	11/23/2019	Optimum Re Insurance Company (OPD9)	TX	YRT/I	OL	Authorized		
74900	63-0483783	02/22/2020	Partner Re (PRT5)	AR	CO/I	XXXL	Authorized		
74900	63-0483783	02/22/2020	Partner Re (PRT9)	AR	CO/I	XXXL	Authorized		
93572	43-1235868	11/23/2019	RGA Reinsurance Co. (RGB8)	MO	YRT/I	OL	Authorized		
93572	43-1235868	11/23/2019	RGA Reinsurance Co. (RGD9)	MO	YRT/I	OL	Authorized		
93572	43-1235868	01/01/2020	RGA Reinsurance Co. (RGH3)	MO	YRT/I	OL	Authorized		
64688	75-6020048	11/23/2019	SCOR Global Life Americas Reins Co (SCB8)	DE	YRT/I	OL	Authorized		
64688	75-6020048	11/23/2019	SCOR Global Life Americas Reins Co (SCD9)	DE	YRT/I	OL	Authorized		
64688	75-6020048	01/01/2020	SCOR Global Life Americas Reins Co (XLH3)	DE	YRT/I	OL	Authorized		
97071	13-3126819	11/23/2019	SCOR Global Life USA Reins Co (GIB8)	DE	YRT/I	OL	Authorized		
97071	13-3126819	11/23/2019	SCOR Global Life USA Reins Co (GID9)	DE	YRT/I	OL	Authorized		
82627	06-0839705	11/23/2019	Swiss Re Life & Health America (SRB8)	MO	YRT/I	OL	Authorized		
82627	06-0839705	01/01/2020	Swiss Re Life & Health America (SREA)	MO	YRT/I	OL	Authorized		
82627	06-0839705	01/01/2020	Swiss Re Life & Health America (SREC)	MO	YRT/I	OL	Authorized		
82627	06-0839705	01/01/2020	Swiss Re Life & Health America (SRH3)	MO	YRT/I	OL	Authorized		
82627	06-0839705	01/01/2020	Swiss Re Life & Health America (SRS3)	MO	YRT/G	OL	Authorized		

STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company
SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Current Year To Date - Allocated by States and Territories

1	Life Contracts		Direct Business Only		6	7		
	2	3	4	5				
States, Etc.	Active Status (a)	Life Insurance Premiums	Annuity Considerations	Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees	Other Considerations	Total Columns 2 Through 5	Deposit-Type Contracts	
1. Alabama	AL	L	12,134,290	30,272,258	1,758,659	7,961,756	52,126,963	35,712,613
2. Alaska	AK	L	3,252,255	3,673,701	29,143	2,480,210	9,435,309	4,491,927
3. Arizona	AZ	L	16,568,445	22,487,478	2,767,045	16,849,905	58,672,873	13,365,420
4. Arkansas	AR	L	6,987,678	3,754,748	581,071	2,854,755	14,178,252	3,139,123
5. California	CA	L	211,584,213	98,791,966	16,162,890	306,090,771	632,629,840	118,514,871
6. Colorado	CO	L	25,419,900	33,503,702	2,566,512	14,683,495	76,173,609	6,566,495
7. Connecticut	CT	L	47,979,421	22,900,516	4,967,768	66,718,725	142,566,430	16,361,404
8. Delaware	DE	L	25,928,064	4,243,302	465,943	22,310,947	52,948,256	1,091,079,843
9. District of Columbia	DC	L	6,068,116	3,503,342	984,148	14,466,808	25,022,414	1,144,412
10. Florida	FL	L	115,024,536	147,516,279	8,784,507	159,470,429	430,795,751	82,982,342
11. Georgia	GA	L	45,677,824	90,110,564	6,095,418	107,542,318	249,426,124	22,564,628
12. Hawaii	HI	L	5,363,058	2,130,091	764,973	4,249,330	12,507,452	2,376,617
13. Idaho	ID	L	6,859,174	2,668,670	569,658	3,568,331	13,665,833	1,408,623
14. Illinois	IL	L	57,457,922	135,566,411	6,040,964	284,938,276	484,003,573	18,623,486
15. Indiana	IN	L	22,487,762	17,543,988	2,359,172	23,086,055	65,476,977	17,068,338
16. Iowa	IA	L	12,672,604	3,911,408	868,097	21,359,156	38,811,265	8,193,421
17. Kansas	KS	L	13,353,040	5,920,604	1,417,976	18,010,865	38,702,485	3,179,959
18. Kentucky	KY	L	8,825,038	21,638,301	1,402,164	10,001,114	41,866,617	13,088,527
19. Louisiana	LA	L	10,445,213	20,775,888	1,695,429	14,681,946	47,598,476	18,137,284
20. Maine	ME	L	8,279,686	3,718,998	614,318	3,364,615	15,977,617	3,406,896
21. Maryland	MD	L	29,683,018	24,114,257	6,780,739	72,831,900	133,409,914	22,040,018
22. Massachusetts	MA	L	58,910,670	81,177,119	9,740,806	403,180,743	553,009,338	35,137,421
23. Michigan	MI	L	32,936,142	42,626,155	3,976,879	134,515,922	214,055,098	23,434,788
24. Minnesota	MN	L	15,137,320	13,586,192	2,250,007	146,375,395	177,348,914	10,088,865
25. Mississippi	MS	L	11,923,664	8,071,771	2,544,458	884,239	23,424,132	10,682,217
26. Missouri	MO	L	15,651,510	9,292,431	2,578,179	56,057,337	83,579,457	10,664,452
27. Montana	MT	L	3,103,701	2,131,011	481,320	518,117	6,234,149	4,211,253
28. Nebraska	NE	L	7,415,042	4,507,651	1,406,160	166,858,446	180,187,299	3,064,285
29. Nevada	NV	L	11,464,373	7,312,912	833,737	33,629,219	53,240,241	7,041,514
30. New Hampshire	NH	L	13,476,259	9,534,985	1,143,457	6,738,136	30,892,837	3,364,280
31. New Jersey	NJ	L	127,691,033	54,775,998	9,464,677	341,779,479	533,711,187	37,027,408
32. New Mexico	NM	L	5,565,142	10,161,594	660,211	1,731,377	18,118,324	1,296,739
33. New York	NY	L	312,884,786	106,252,653	21,080,621	427,419,111	867,637,171	76,116,133
34. North Carolina	NC	L	47,528,834	42,319,709	7,530,347	36,708,029	134,086,919	39,074,880
35. North Dakota	ND	L	1,723,790	2,095,066	192,440	3,642,453	7,653,749	2,376,849
36. Ohio	OH	L	31,718,874	40,320,044	4,369,515	309,308,405	385,716,838	50,466,052
37. Oklahoma	OK	L	23,355,404	10,142,638	1,896,124	35,775,435	71,169,601	9,733,188
38. Oregon	OR	L	7,003,861	11,377,030	1,255,179	15,662,130	35,298,200	10,564,530
39. Pennsylvania	PA	L	79,424,550	122,203,696	10,162,070	180,267,027	392,057,343	6,611,096
40. Rhode Island	RI	L	6,371,879	4,835,447	857,105	13,096,073	25,160,504	2,232,066
41. South Carolina	SC	L	27,390,026	24,496,132	3,810,203	14,082,088	69,778,449	25,250,490
42. South Dakota	SD	L	13,279,849	855,404	168,449	1,317,258	15,620,960	972,882
43. Tennessee	TN	L	31,659,428	25,234,018	4,616,878	165,957,541	227,467,865	22,523,518
44. Texas	TX	L	103,424,746	81,739,053	11,944,572	109,902,551	307,010,922	58,244,452
45. Utah	UT	L	10,675,611	11,316,591	968,863	5,736,409	28,697,474	6,496,748
46. Vermont	VT	L	5,038,128	2,081,094	447,785	9,045,184	16,612,191	390,450
47. Virginia	VA	L	61,509,605	39,923,005	7,436,808	93,244,845	202,114,263	35,058,387
48. Washington	WA	L	16,747,526	26,729,724	2,828,973	38,296,787	84,603,010	2,172,609
49. West Virginia	WV	L	3,071,550	5,891,707	372,495	48,142,680	57,478,432	21,500,961
50. Wisconsin	WI	L	17,503,902	13,898,237	1,778,439	22,146,056	55,326,634	1,585,115
51. Wyoming	WY	L	1,271,142	3,550,088	140,397	51,063	5,012,690	1,813,715
52. American Samoa	AS	N						
53. Guam	GU	N	375	375	2,426		3,176	7,859
54. Puerto Rico	PR	L	19,062,855	784,107	2,592,179	4,685,093	27,124,234	967,486
55. U.S. Virgin Islands	VI	N	2,424		5,342		7,766	3,200
56. Northern Mariana Islands	MP	N						
57. Canada	CAN	N	358,403		19,209		377,612	25,299
58. Aggregate Other Aliens	OT	XXX	3,821,010	288,447	142,150	104,940,000	109,191,607	
59. Subtotal	XXX	1,820,154,671	1,518,258,556	187,375,054	4,109,216,335	7,635,004,616	2,023,647,434	
90. Reporting entity contributions for employee benefits plans	XXX							
91. Dividends or refunds applied to purchase paid-up additions and annuities	XXX	310,803,800	297,207			311,101,007		
92. Dividends or refunds applied to shorten endowment or premium paying period	XXX							
93. Premium or annuity considerations waived under disability or other contract provisions	XXX	6,757,637		2,890,357		9,647,994		
94. Aggregate or other amounts not allocable by State	XXX	14,690,741				14,690,741		
95. Totals (Direct Business)	XXX	2,152,406,849	1,518,555,763	190,265,411	4,109,216,335	7,970,444,358	2,023,647,434	
96. Plus Reinsurance Assumed	XXX	10,171,434	22,794,509		431,492,337	464,458,280	319,009,162	
97. Totals (All Business)	XXX	2,162,578,283	1,541,350,272	190,265,411	4,540,708,672	8,434,902,638	2,342,656,596	
98. Less Reinsurance Ceded	XXX	276,652,615	704,555,246	25,168,650		1,006,376,511		
99. Totals (All Business) less Reinsurance Ceded	XXX	1,885,925,668	836,795,026	165,096,761	4,540,708,672	7,428,526,127	2,342,656,596	
DETAILS OF WRITE-INS								
58001. HKG Hong Kong	XXX	108,140				108,140		
58002. ZZZ Other Alien	XXX	3,712,870	288,447	142,150	104,940,000	109,083,467		
58003.	XXX							
58998. Summary of remaining write-ins for Line 58 from overflow page	XXX							
58999. Totals (Lines 58001 through 58003 plus 58998)(Line 58 above)	XXX	3,821,010	288,447	142,150	104,940,000	109,191,607		
9401. Reinvested Net Nonforfeiture Option Proceeds	XXX	14,690,741				14,690,741		
9402.	XXX							
9403.	XXX							
9498. Summary of remaining write-ins for Line 94 from overflow page	XXX							
9499. Totals (Lines 9401 through 9403 plus 9498)(Line 94 above)	XXX	14,690,741				14,690,741		

(a) Active Status Counts:

L - Licensed or Chartered - Licensed Insurance carrier or domiciled RRG.....52
E - Eligible - Reporting entities eligible or approved to write surplus lines in the state.....
N - None of the above - Not allowed to write business in the state.....5

R - Registered - Non-domiciled RRGs.....
Q - Qualified - Qualified or accredited reinsurer.....

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

PART 1 – ORGANIZATIONAL CHART

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

	<u>Federal Tax ID</u>	<u>NAIC Co Code</u>	<u>State of Domicile</u>
MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY	04-1590850	65935	Massachusetts
Direct & Indirect Owned Subsidiaries:			
C.M. Life Insurance Company	06-1041383	93432	Connecticut
MML Bay State Life Insurance Company	43-0581430	70416	Connecticut
CML Mezzanine Investor III, LLC	06-1041383		Delaware
CML Special Situations Investor LLC	None		Delaware
CML Global Capabilities LLC	None		Delaware
MM Global Capabilities I LLC	None		Delaware
MassMutual Global Business Services India LLP	None		India
MM Global Capabilities (Netherlands) B.V.	None		Netherlands
MM Global Capabilities II LLC	None		Delaware
MM Global Capabilities III LLC	None		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 Timberlands I, LLC	None		Delaware
Lyme Adirondack Timberlands II, LLC	None		Delaware
MSP-SC, LLC	04-1590850		Delaware
Insurance Road LLC	04-1590850		Delaware
MassMutual Trad Private Equity LLC	04-1590850		Delaware
MassMutual Intellectual Property LLC	04-1590850		Delaware
Trad Investments I LLC	None		Delaware
EM Opportunities LLC	None		Delaware
MassMutual MCAM Insurance Company, Inc.	None		Vermont
Jefferies Finance LLC	27-0105644		Delaware
APEX Credit Partners LLC	None		Delaware
Jefferies Credit Management LLC	None		Delaware
Jefferies Private Credit GP LLC	None		Maryland
Jefferies Private Credit Fund LP	None		Delaware
Jefferies Private Credit BDC Inc.	None		Delaware
JFIN GP Adviser LLC	None		Delaware
JFIN Fund III LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware
JFAM GP LLC	None		Delaware
JFAM GP LP	None		Delaware
Jefferies Direct Lending Fund C LP	None		Delaware
Jefferies DLF C Holdings LLC	None		Delaware
Jefferies Direct Lending Fund C SPE LLC	None		Delaware
JFIN Revolver Holdings LLC	None		Delaware

*This entity is owned by another or multiple entities in the group. Please refer to Schedule 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 Revolver Holdings II 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 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 CLO 2015 Ltd.*	None		Cayman Islands
Apex Credit CLO 2015-II Ltd.*	None		Cayman Islands
JFIN Revolver CLO 2015 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-III Ltd.	None		Cayman Islands
JFIN Revolver CLO 2018 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2019 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2019-II Ltd.	None		Cayman Islands
JFIN Revolver Fund, L.P.	None		Delaware
Apex Credit CLO 2016 Ltd.	None		Cayman Islands
Apex Credit CLO 2017 Ltd.	None		Cayman Islands
Apex Credit CLO 2017-II Ltd.	None		Cayman Islands
Apex Credit CLO 2019-II Ltd.*	None		Cayman Islands
MassMutual Mortgage Lending LLC	None		Delaware
MassMutual Retirement Services, LLC	04-1590850		Delaware
MM Copper Hill Road LLC	04-1590850		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2013-A	90-1005837		Delaware
MMAF Equipment Finance LLC 2014-A	36-4785301		Delaware
MMAF Equipment Finance LLC 2015-A	38-3969560		Delaware
MMAF Equipment Finance LLC 2016-A	32-0489588		Delaware
MMAF Equipment Finance LLC 2017-A	35-2590691		Delaware
MMAF Equipment Finance LLC 2017-B	32-0546197		Delaware

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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>
MMAF Equipment Finance LLC 2018-A	82-5335801		Delaware
MMAF Equipment Finance LLC 2019-A	83-3722640		Delaware
MMAF Equipment Finance LLC 2019-B	None		Delaware
Rozier LLC	None		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
MassMutual Holding LLC	04-2854319		Delaware
Fern Street LLC	37-1732913		Delaware
Sleeper Street LLC	None		Delaware
Haven Life Insurance Agency, LLC	46-2252944		Delaware
MassMutual Assignment Company	06-1597528		North Carolina
MassMutual Capital Partners LLC	04-1590850		Delaware
MassMutual Ventures Holding LLC	None		Delaware
Crane Venture Partners LLP	None		United Kingdom
MassMutual Ventures Management LLC	None		Delaware
MassMutual Ventures SEA Management Private Limited	None		Singapore
MassMutual Ventures Southeast Asia I LLC	None		Delaware
MassMutual Ventures Southeast Asia II LLC	None		Delaware
MassMutual Ventures UK LLC	None		Delaware
MassMutual Ventures US I LLC	47-1296410		Delaware
MassMutual Ventures US II LLC	None		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
LifeScore Labs, LLC	47-1466022		Massachusetts
MM Asset Management Holding LLC	45-4000072		Delaware
Barings LLC	51-0504477		Delaware
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
Barings Investment Management (Shanghai) Limited	None		Hong Kong, Special Administrative Region of China
Barings Overseas Investment Fund Management (Shanghai) Limited	None		Hong Kong, Special Administrative Region of China
Baring SICE (Taiwan) Limited	98-0457707		Taiwan ROC
Barings Japan Limited	98-0236449		Japan
Barings Australia Holding Company Pty Ltd	None		Australia
Barings Australia Pty Ltd	98-0457456		Australia
Barings Finance LLC	80-0875475		Delaware

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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 Europe Funding Limited	None		Ireland
BCF Senior Funding I LLC	None		Delaware
BCF Senior Funding I Designated Activity Company	None		Ireland
Barings Securities LLC	04-3238351		Delaware
Barings Guernsey Limited	98-0437588		Guernsey
Barings Europe Limited	None		United Kingdom
Barings Asset Management Spain SL	None		Spain
Barings Italy S.r.l.	None		Italy
Barings Sweden AB	None		Sweden
Barings Finland Oy	None		Finland
Barings Netherlands B.V.	None		Netherlands
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 GmbH	98-1194368		Germany
Baring Asset Management Limited	98-0241935		United Kingdom
Barings European Direct Lending 1 GP LLP	None		United Kingdom
Barings Global Advisors Limited	98-1012393		United Kingdom
BCGSS 2 GP LLP	None		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 International Fund Managers (Ireland) Limited	98-0524272		Ireland
Baring Asset Management Switzerland Sàrl	None		Switzerland
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 Core Fund Feeder I GP S.à.r.l.	None		Luxembourg
Barings Investment Fund (LUX) GP S.à.r.l.	None		Luxembourg
Barings GPC GP S.à.r.l.	None		Luxembourg
Barings European Core Property Fund GP Sà.r.l	None		United Kingdom
Barings Umbrella Fund (LUX) GP S.à.r.l.	None		Luxembourg
PREIF Holdings Limited Partnership	None		United Kingdom
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

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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 (U.K.) Limited	98-0432153		United Kingdom
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
Chassis Acquisition Holding LLC	81-2244465		Delaware
CRA Aircraft Holding LLC*	81-4258759		Delaware
Aland Royalty Holdings LP	None		Delaware
ASM SIP, LP	None		Cayman Islands
Intermodal Holding II LLC	46-2344300		Delaware
Milestone Acquisition Holding, LLC.	47-3055009		Delaware
Novation Companies, Inc.	None		Maryland
Red Lake Ventures, LLC	46-5460309		Delaware
Remington L & W Holdings LLC*	81-4065378		Connecticut
EIP Holdings I, LLC	None		Delaware
Tamiami Citrus, LLC	None		Delaware
Teaktree Acquisition, LLC	None		Delaware
Techquity, LP	None		Delaware
U.S. Pharmaceuticals Holdings I, LLC	46-0687392		Delaware
U.S. Pharmaceuticals Holdings II, LLC	47-5436800		Delaware
Validus Pharmaceuticals LLC	None		Delaware
VGS Acquisition Holding, LLC	None		Delaware
Aland Royalty GP, LLC	None		Delaware
Alaska Future Fund GP, LLC	None		Delaware
BAI Funds SLP, LLC	None		Delaware
BAI GP, LLC	None		Delaware
Barings Alternative Investments SLP, LLC	None		Delaware
Baring Asset-Based Income Fund (US) GP, LLC	None		Delaware
Barings Investment Series LLC	None		Delaware
Barings Capital Investment LLC	None		Maryland
Barings Emerging Generation Fund GP, LLC	None		Delaware
Barings Global Investment Funds (U.S.) Management LLC	04-1590850		Delaware
Babson Global Loan Feeder Management, LLC	None		Delaware
Barings ABIF SLP, LLC	None		Delaware
Barings CLO Investment Partners GP, LLC	None		Delaware
Barings Core Property Fund GP LLC	None		Delaware
Barings Direct Lending GP Ltd.	None		Cayman Islands
Barings Global Energy Infrastructure Advisors, LLC	None		Delaware
Barings Global Real Assets Fund GP, LLC	None		Delaware
Barings Multi Asset Income Fund	None		Hong Kong
Barings North American Private Loan Fund Management, LLC	None		Delaware

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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 North American Private Loan Fund Management II, LLC	None		Delaware
Barings/LAZ Parking Fund GP LLC	None		Delaware
Barings Small Business Fund LLC	None		Delaware
Benton Street Advisors, Inc.	98-0536233		Cayman Islands
BRECS VII GP LLC	None		Delaware
CCM Fund I REIT Manager LLC	None		Delaware
CEMF I GP LLC	None		Delaware
CHY Venture GP LLC	None		Delaware
Cornerstone Hotel Fund GP, LLC	None		Delaware
CREF X GP LLC	None		Delaware
CREF VIII GP, LLC	None		Delaware
Great Lakes III GP, LLC	04-1590850		Delaware
Lake Jackson LLC	None		Delaware
Loan Strategies Management LLC	04-1590850		Delaware
Mezzco II LLC	02-0767001		Delaware
Mezzco III LLC	41-2280126		Delaware
Mezzco IV LLC	80-0920285		Delaware
Mezzco Australia II LLC	None		Delaware
RECSA-NY GP LLC	None		Delaware
SBNP SIA II LLC	None		Delaware
SBNP SIA III LLC	None		Delaware
Somerset Special Opportunities Management LLC	04-1590850		Delaware
MassMutual International LLC	04-3313782		Delaware
MassMutual Solutions LLC	None		Delaware
HarborTech (Asia) Limited	None		Hong Kong
Yunfeng Financial Group Limited	None		Hong Kong
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MassMutual Holding MSC, Inc.	04-3341767		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
Other Affiliates & Funds:			
100 w. 3 rd Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	82-2432216		Delaware
2160 Grand Manager LLC	04-1590850		Delaware
300 South Tryon LLC	04-1590850		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

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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 Affordable Housing Mortgage Fund I LLC	82-3468147		Delaware
Barings Affordable Housing Mortgage Fund II LLC	61-1902329		Delaware
Barings Asset-Based Income Fund (US) LP	36-4868350		Delaware
Barings Emerging Markets Corporate Bond Fund	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. 2012-II	None		Cayman Islands
Babson CLO Ltd. 2013-I	None		Cayman Islands
Babson CLO Ltd. 2014-I	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
Barings CLO Ltd. 2017-I	None		Cayman Islands
Barings CLO 2018-III	None		Cayman Islands
Barings CLO 2018-IV	None		Cayman Islands
Barings CLO 2019-I	None		Cayman Islands
Barings CLO 2019-II	98-1473665		Cayman Islands
Barings CLO 2019-III	None		Cayman Islands
Barings CLO 2019-IV	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
Barings Euro CLO 2019-I	3603726OH		Ireland
Barings Euro CLO 2019-II	None		Ireland
Barings Global Em. Markets Equity Fund	82-5330194		North Carolina
Barings Global Energy Infrastructure Fund I LP	98-1332384		Cayman Islands
Barings Global Inv. Grade Strat Fund	None		Ireland
Barings Global Private Loan Fund	None		Luxembourg
Barings Global Real Assets Fund LP	82-3867745		Delaware
Barings Global Special Situations Credit Fund 3	None		Ireland
Barings Middle Market CLO 2017-I Ltd & LLC	None		Cayman Islands
Barings Middle Market CLO 2018-I	None		Cayman Islands
Barings Middle Market CLO 2019-I	None		Cayman Islands
Barings North American Private Loan Fund LP	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

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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>
Braemar Energy Ventures I, L.P. *	None		Delaware
Barings European Core Property Fund SCSp	None		Luxembourg
Benchmark 2018-B2 Mortgage Trust	38-4059932		New York
Benchmark 2018-B4	None		New York
Benchmark 2018-B8	38-4096530		New York
Braselton Point LLC	04-1590850		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
Cornerstone Permanent Mortgage Fund III LLC	35-2531693		Massachusetts
Cornerstone Permanent Mortgage Fund IV LLC	61-1793735		Massachusetts
Gateway Mezzanine Partners II LP*	90-0991195		Delaware
Great Lakes III, L.P.	37-1708623		Delaware
JPMCC Commercial Mortgage Securities Trust 2017-JP7	38-4041011; 38-4041012		New York
JPMDB Commercial Mortgage Securities Trust 2017-C5	38-4032059		New York
KKR-MM Vector LP	82-1512591		Delaware
Marco Hotel LLC	46-4255307		Delaware
Miami Douglas One GP LLC*	04-1590850		Delaware
Miami Douglas Two GP LLC*	04-1590850		Delaware
Miami Douglas Two LP*	04-1590850		Delaware
HB Naples Golf Owner LLC	45-3623262		Delaware
MM Debt Participations LLC	81-3000420		Delaware
RB Apartments LLC	82-4411267		Delaware
Reston Arboretum LLC	75-2901061		Delaware
Rockall CLO B.V.	None		United Kingdom
Rockville Town Center LLC	54-2055778		Virginia
Somerset Special Opportunities Fund L.P.*	20-8856877		Delaware
SouthPointe Industrial LLC	04-1590850		Delaware
Ten Fan Pier Boulevard LLC	35-2553915		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
Trailside MM Member LLC*	04-1590850		Delaware
Washington Gateway Two LLC*	83-1325764		Delaware
Washington Gateway Three LLC*	32-0574045		Delaware
West 46 th Street Hotel LLC	05-1590850		Delaware
Barings Affiliates & Funds:			
Barings Emerging Markets Debt Short Duration Fund	None		Ireland
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands

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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 Global High Yield Fund	47-3790192		Massachusetts
Barings Total Return Bond Fund	47-3734770		Massachusetts
Barings U.S. High Yield Fund	47-3801860		Massachusetts
CCIC Fund	None		Peoples Republic of China
Great Lakes II LLC*	71-1018134		Delaware
Barings Real Estate Affiliates & Funds:			
Wood Creek Venture Fund LLC	04-1590850		Delaware
50 Liberty LLC*	36-4823011		Delaware
One Harbor Shore LLC*	80-0948028		Delaware
Budapester Strasse LLC	81-4382111		Delaware
Calgary Railway Holding LLC*	82-2285211		Delaware
Combrook PRS Holdings LLC	82-3307907		Delaware
Cornerstone California Mortgage Fund I LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC	95-4207717		California
Cornerstone California Mortgage Fund III 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 Madison Member LLC	81-0890084		Delaware
CCB Montford Park LLC*	82-1563809		Delaware
Danville Riverwalk Venture, LLC	82-2783393		Delaware
Fan Pier Development LLC*	20-3347091		Delaware
Landmark Manchester Holdings LLC	81-5360103		Delaware
MM Island Member LLC	04-1590850		Delaware
NoHo West Venture LLC	83-0881588		Delaware
PACO France Logistics 2 LLC	04-1590850		Delaware
Portland 400 Sixth Manager LLC	82-3393166		Delaware
Salomon Brothers Commercial Mortgage Trust 2001-MM	None		Delaware
Sawgrass Village Shopping Center LLC*	27-2977720		Delaware
Spain Avalon Holding LLC	04-1590850		Delaware
Three PW Office Holding LLC	81-5273574		Delaware
Twenty Two Liberty LLC*	35-2484550		Massachusetts
Unna, Dortmund Holding LLC	82-3250684		Delaware
Washington Gateway Apartments Venture LLC*	45-5401109		Delaware
Ygnatio Valley Funding	20-5481477		Delaware
MassMutual Premier Funds:			
MassMutual Barings Dynamic Allocation Fund	45-3168892		Massachusetts
MassMutual Premier Focused International Fund	02-0754273		Massachusetts
MassMutual Premier Main Street Fund	51-0529328		Massachusetts

*This entity is owned by another or multiple entities in the group. Please refer to Schedule 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 Premier Strategic Emerging Markets Fund	26-3229251		Massachusetts
MassMutual Premier Value Fund	04-3277550		Massachusetts
MassMutual Select Funds:			
MassMutual Select Diversified International Fund	14-1980900		Massachusetts
MassMutual Select Diversified Value Fund	01-0821120		Massachusetts
MassMutual Select Fundamental Growth Fund	04-3512593		Massachusetts
MassMutual Select Large Cap Value Fund	04-3513019		Massachusetts
MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MassMutual Select T. Rowe Price Retirement 2005 Fund	82-3347422		Massachusetts
MassMutual Select T. Rowe Price Retirement 2010 Fund	82-3355639		Massachusetts
MassMutual Select T. Rowe Price Retirement 2015 Fund	82-3382389		Massachusetts
MassMutual Select T. Rowe Price Retirement 2020 Fund	82-3396442		Massachusetts
MassMutual Select T. Rowe Price Retirement 2025 Fund	82-3417420		Massachusetts
MassMutual Select T. Rowe Price Retirement 2030 Fund	82-3430358		Massachusetts
MassMutual Select T. Rowe Price Retirement 2035 Fund	82-3439837		Massachusetts
MassMutual Select T. Rowe Price Retirement 2040 Fund	82-3451779		Massachusetts
MassMutual Select T. Rowe Price Retirement 2045 Fund	82-3472295		Massachusetts
MassMutual Select T. Rowe Price Retirement 2050 Fund	82-3481715		Massachusetts
MassMutual Select T. Rowe Price Retirement 2055 Fund	82-3502011		Massachusetts
MassMutual Select T. Rowe Price Retirement 2060 Fund	82-3525148		Massachusetts
MassMutual Select T. Rowe Price Retirement Balanced Fund	82-3533944		Massachusetts
MML Series Investment Funds:			
MML Series International Equity Fund	46-4257056		Massachusetts
MML Series Investment Funds II:			
MML Series II Asset Momentum Fund	47-3517233		Massachusetts
MML Series II Dynamic Bond Fund	47-3529636		Massachusetts
MML Series II Equity Rotation Fund	47-3544629		Massachusetts
MML Series II Special Situations Fund	47-3559064		Massachusetts
MassMutual RetireSMART Funds:			
MassMutual RetireSMART 2055 Fund	46-3289207		Massachusetts
MassMutual RetireSMART 2060 Fund	47-5326235		Massachusetts
MassMutual RetireSMART Conservative Fund	45-1618155		Massachusetts
MassMutual RetireSMART Growth Fund	45-1618222		Massachusetts
MassMutual RetireSMART In Retirement Fund	03-0532464		Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262		Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046		Massachusetts

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

STATEMENT AS OF MARCH 31, 2020 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			Massachusetts Mutual Life Insurance Company (MMLIC)	MA	RE	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	CM Life Ins Co	93432	06-1041383				C.M. Life Insurance Company	CT	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0435	MML Baystate Life Ins Co	70416	43-0581430				MML Bay State Life Insurance Company	CT	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1041383				CML Mezzanine Investor III, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
.0000							CML Global Capabilities LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities I LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual Global Business Services India LLP	IND	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities (Netherlands) B.V.	LUX	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities II LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MM Global Capabilities III LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MML Special Situations Investor LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
.0000			47-5322979				Timberland Forest Holding LLC	DE	DS	Wood Creek Capital Management LLC	Management		MMLIC		
.0000							Lyme Adirondack Forest Company, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timberlands I, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000							Lyme Adirondack Timberlands II, LLC	DE	DS	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Berkshire Way LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MSP-SC, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							EM Opportunities LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							MassMutual MCAM Insurance Company, Inc.	VT	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				Insurance Road LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Trad Private Equity LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				MassMutual Intellectual Property LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
.0000							Trad Investments I LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
.0000			27-0105644				Jefferies Finance LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	50.000	MMLIC		1
.0000							MassMutual Mortgage Lending LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Apex Credit Partners LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Credit Management LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Private Credit GP LLC	DE	NIA	Jefferies Credit Management LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Private Credit Fund LP	DE	NIA	Jefferies Private Credit GP LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Private Credit BDC Inc.	MD	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN GP Adviser LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Fund III LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Asset Management LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFAM GP LLC	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		

STATEMENT AS OF MARCH 31, 2020 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							JFAM GP LP	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund C LP	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		
.0000							Jefferies DLF C Holdings LLC	DE	NIA	Jefferies Direct Lending Fund C LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Direct Lending Fund C SPE LLC	DE	NIA	Jefferies DLF C Holdings LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver Holdings II LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Co-Issuer Corporation	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Europe GP, S.a.r.l.	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Finance Europe, SCSp	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Business Credit Fund I LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN High Yield Investments LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN LC Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2012 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2013 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2014-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN CLO 2015 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	44.000	MMLIC		
.0000							JFIN CLO 2015 Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership	56.000	MMLIC		
.0000							JFIN Revolver Fund, L.P.	DE	NIA	Jefferies Finance LLC	Ownership	58.000	MMLIC		
.0000							Apex Credit CLO 2015-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	33.000	MMLIC		
.0000							Apex Credit CLO 2015-II Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership	53.000	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 2017 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2017-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2017-III Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2018 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2019 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN Revolver CLO 2019-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Apex Credit CLO 2016 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Apex Credit CLO 2017 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Apex Credit CLO 2017-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							Apex Credit CLO 2019-II Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership	74.000	MMLIC		
.0000			04-1590850				MassMutual Retirement Services, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Copper Hill Road LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-3356880				MML Distributors LLC	MA	DS	Company	Ownership	99.000	MMLIC		
.0000			04-3356880				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			46-3238013				MML Strategic Distributors, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			06-1563535	2881445			The MassMutual Trust Company, FSB	CT	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000			26-0073611				MassMutual Asset Finance LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	99.600	MMLIC		
.0000			26-0073611				MassMutual Asset Finance LLC	DE	DS	C.M. Life Insurance Company	Ownership	0.400	MMLIC		
.0000			90-1005837				MMAF Equipment Finance LLC 2013-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			36-4785301				MMAF Equipment Finance LLC 2014-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			38-3969560				MMAF Equipment Finance LLC 2015-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			32-0489588				MMAF Equipment Finance LLC 2016-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		

STATEMENT AS OF MARCH 31, 2020 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			35-2590691				MMAF Equipment Finance LLC 2017-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			32-0546197				MMAF Equipment Finance LLC 2017-B	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			82-5335801				MMAF Equipment Finance LLC 2018-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000			83-3722640				MMAF Equipment Finance LLC 2019-A	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							MMAF Equipment Finance LLC 2019-B	DE	DS	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
.0000							Rozier LLC	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				MML Private Equity Fund Investor LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Private Equity Fund Investor LLC	DE	NIA	Baring Asset Management Limited	Management		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			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							Steeper Street LLC	DE	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				MassMutual Capital Partners LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Holding LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							Crane Venture Partners LLP	GBR	DS	MassMutual Holding LLC	Ownership	33.000	MMLIC		
.0000							MassMutual Ventures Management LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures SEA Management Private Limited	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Southeast Asia I LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures Southeast Asia II LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures UK LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000							MassMutual Ventures US I LLC	DE	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			47-1296410				MassMutual Ventures US II 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				LifeScore Labs, LLC	MA	DS	MassMutual Holding LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				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				MML ISI 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				Barings LLC	DE	DS	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
.0000			98-0524271				Baring Asset Management (Asia) Holdings Limited	HKG	DS	Barings LLC	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							Barings Investment Management (Shanghai) Limited	HKG	DS	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
.0000							Barings Overseas Investment Fund Management (Shanghai) Limited	HKG	DS	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
.0000			98-0457707				Baring SICE (Taiwan) Limited	TWN	DS	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0236449				Barings Japan Limited	JPN	DS	Baring Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		

STATEMENT AS OF MARCH 31, 2020 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							Barings Australia Holding Company Pty Ltd	AUS	DS	Barings Asset Management (Asia) Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457456				Barings Australia Pty Ltd	AUS	DS	Barings Australia Holding Company Pty Ltd	Ownership	100.000	MMLIC		
.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				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							Barings Europe Limited	GBR	DS	Barings Guernsey Limited	Ownership	100.000	MMLIC		
.0000							Barings Asset Management Spain SL	ESP	DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Italy S.r.l.	ITA	DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Sweden AB	SWI	DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Finland Oy	FIN	DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Netherlands B.V.	NLD	DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							Barings Real Estate UK Holdings Limited	DE	DS	Barings Europe Limited	Ownership	100.000	MMLIC		
.0000							BREAIE AIFM LLP	GBR	DS	Barings Real Estate UK Holdings Limited	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 GmbH	DEU	DS	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0241935				Barings Asset Management Limited	GBR	DS	MassMutual Holdings (Bermuda) Limited	Ownership	100.000	MMLIC		
.0000							Barings European Direct Lending 1 GP LLP	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-1012393				Barings Global Advisors Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							BCGSS 2 GP LLP	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457328				Barings International Investment Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings International Investment Management Holdings	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457587				Barings International Investment Management Holdings	GBR	DS	Barings International Investment Management Holdings	Ownership	100.000	MMLIC		
.0000			98-0457576				Barings Asset Management UK Holdings Limited	GBR	DS	Barings Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0465031				Barings Asset Management GmbH	DEU	DS	Barings Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0524272				Barings International Fund Managers (Ireland) Limited	IRL	DS	Barings Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000							Barings Asset Management Switzerland Sarl	CHE	DS	Barings Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0497550				Barings France SAS	FRA	DS	Barings Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
.0000			98-0457586				Barings Fund Managers Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457574				Barings Pension Trustees Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000			98-0457578				Barings Investment Services Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Core Fund Feeder I GP S.a.r.l.	LUX	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings GPC GP S.a. r.l.	LUX	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings European Core Property Fund GP Sarl	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Investment Fund (LUX) GP S.a. r.l.	LUX	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Barings Umbrella Fund (LUX) GP S.a.r.l.	LUX	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							PREIF Holdings Limited Partnership	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine GP III Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Almack Holding Partnership GP Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		
.0000							Almack Mezzanine Fund II Limited	GBR	DS	Barings Asset Management Limited	Ownership	100.000	MMLIC		

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SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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Group Code	Group Name	NAIC Company Code	ID Number	Federal RSSD	CIK	Name of Securities Exchange if Publicly Traded (U.S. or International)	Names of Parent, Subsidiaries Or Affiliates	Domiciliary Location	Relationship to Reporting Entity	Directly Controlled by (Name of Entity/Person)	Type of Control (Ownership, Board, Management, Attorney-in-Fact, Influence, Other)	If Control is Ownership Provide Percentage	Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	*
.0000			98-0432153				Barings (U.K.) Limited	GBR	DS	Barings Guernsey Limited	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital Holdings LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital LLC	MI	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multifamily Capital Corporation	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-3238351	3456895			Barings Real Estate Advisers Inc.	CA	DS	Barings Real Estate Advisers LLC	Ownership	100.000	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			83-0560183				Aland Royalty Holdings LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	26.000	MMLIC		
.0000			83-0560183				Aland Royalty Holdings LP	DE	NIA	Barings LLC	Management		MMLIC		
.0000							ASM SIP, LP	CYM	NIA	Massachusetts Mutual Life Insurance Company	Ownership	13.200	MMLIC		
.0000							ASM SIP, LP	CYM	NIA	Barings LLC	Influence		MMLIC		
.0000			46-2344300				Intermodal Holdings II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.000	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	Barings LLC	Influence		MMLIC		
.0000							Novation Companies, Inc.	MD	NIA	Massachusetts Mutual Life Insurance Company	Ownership	20.700	MMLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	31.500	MMLIC		
.0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Barings LLC	Influence		MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	66.700	MMLIC		
.0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	Barings LLC	Influence		MMLIC		
.0000							Tamiami Citurus, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	15.700	MMLIC		
.0000							Teaktree Acquisition, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	14.700	MMLIC		
.0000							Teaktree Acquisition, LLC	DE	NIA	Barings LLC	Influence		MMLIC		
.0000							Techquity, LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	37.500	MMLIC		
.0000							Techquity, LP	DE	NIA	Barings LLC	Influence		MMLIC		
.0000			46-0687392				US Pharmaceutical Holdings I, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Management		MMLIC		
.0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	42.400	MMLIC		
.0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Barings LLC	Influence		MMLIC		
.0000							EIP Holdings I, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	29.000	MMLIC		
.0000							EIP Holdings I, LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Validus Pharmaceuticals LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	70.000	MMLIC		
.0000							VGS Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	33.300	MMLIC		
.0000							VGS Acquisition Holding, LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Aland Royalty GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Alaska Future Fund GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BAI GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BAI Funds SLP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Alternative Investments SLP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Asset-Based Income Fund (US) GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		

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SCHEDULE Y

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.0000							Barings Investment Series LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Capital Investment LLC	MD	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Emerging Generation Fund GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Barings Global Investment Funds (U.S.) Management LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Babson Global Loan Feeder Management, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings ABIF SLP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings CLO Investment Partners GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Core Property Fund GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Direct Lending GP Ltd.	CYM	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Energy Infrastructure Advisors, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Multi Asset Income Fund	HKG	DS	Barings LLC	Management		MMLIC		
.0000							Barings North American Private Loan Fund Management, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings North American Private Loan Fund Management II, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Global Real Assets Fund GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings/LAZ Parking Fund GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Barings Small Business Fund LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			98-0536233				Benton Street Advisors, Inc.	CYM	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							BRECS VII GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CCM Fund I REIT Manager LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CEMF I GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CHY Venture GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Cornerstone Hotel Fund GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CREF X GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							CREF VIII GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Great Lakes III GP, LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Lake Jackson LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				Loan Strategies Management LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			02-0767001				Mezzco II LLC	DE	DS	Barings LLC	Ownership	98.400	MMLIC		
.0000			41-2280126				Mezzco III LLC	DE	DS	Barings LLC	Ownership	99.300	MMLIC		
.0000			80-0920285				Mezzco IV LLC	DE	DS	Barings LLC	Ownership	99.300	MMLIC		
.0000							Mezzco Australia II LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							RECSA-NY GP LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				SBNP SIA II LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							SBNP SIA III LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Somerset Special Opportunities Management LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				SouthPointe Industrial LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000			04-1590850				SouthPointe Industrial LLC	DE	DS	Barings LLC	Ownership	100.000	MMLIC		
.0000							Invesco Ltd.	BMJ	DS	Massachusetts Mutual Life Insurance Company	Ownership	15.700	MMLIC	Y	
.0000			04-3313782				MassMutual International LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	Y	
.0000							MassMutual Solutions LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							HarborTech (Asia) Limited	HKG	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Yunfeng Financial Group Limited	HKG	DS	Massachusetts Mutual Life Insurance Company	Ownership	24.900	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	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-3341767				MassMutual Holding MSC, Inc.	MA	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MML Mezzanine Investor II, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		

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.0000			04-1590850				MML Mezzanine Investor III, LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			27-3576835				MassMutual External Benefits Group LLC	DE	DS	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				100 w. 3rd Street LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				2160 Grand Manager LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.100	MMLIC		
.0000			82-2432216				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							Almack Mezzanine Fund I LP	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	41.400	MMLIC		
.0000							Almack Mezzanine Fund I LP	GBR	NIA	C.M. Life Insurance Company	Ownership	4.600	MMLIC		
.0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	72.900	MMLIC		
.0000							Almack Mezzanine Fund III LP	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	34.200	MMLIC		
.0000							Almack Mezzanine Fund III LP	GBR	NIA	C.M. Life Insurance Company	Ownership	3.800	MMLIC		
.0000							Almack Mezzanine Fund III LP	GBR	NIA	Barings (U.K.) Limited	Management		MMLIC		
.0000							Barings Affordable Housing Mortgage Fund I LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.700	MMLIC		
.0000							Barings Affordable Housing Mortgage Fund I LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000			61-1902329				Barings Affordable Housing Mortgage Fund II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.600	MMLIC		
.0000			61-1902329				Barings Affordable Housing Mortgage Fund II LLC	DE	NIA	Barings LLC	Management		MMLIC		
.0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	11.300	MMLIC		
.0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	C.M. Life Insurance Company	Ownership/Influence	1.100	MMLIC		
.0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	IRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	77.900	MMLIC		
.0000							Barings Emerging Markets Corporate Bond Fund	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	22.300	MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	DE	NIA	C.M. Life Insurance Company	Ownership	1.400	MMLIC		
.0000			98-1206017				Babson Capital Global Special Situation Credit Fund 2	DE	NIA	Barings LLC	Management		MMLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	75.800	MMLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	3.800	MMLIC		
.0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings US High Yield Bond Fund	IRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	53.800	MMLIC		
.0000							Barings US High Yield Bond Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Babson CLO Ltd. 2013-I	CYM	NIA	Barings LLC	Influence		MMLIC		3
.0000							Babson CLO Ltd. 2014-I	CYM	NIA	Barings LLC	Influence		MMLIC		2
.0000							Babson CLO Ltd. 2015-I	CYM	NIA	Barings LLC	Influence		MMLIC		4
.0000							Babson CLO Ltd. 2015-II	CYM	NIA	Barings LLC	Influence		MMLIC		5

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.0000							Babson CLO Ltd. 2016-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson CLO Ltd. 2016-II	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings CLO Ltd. 2017-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings CLO 2018-III	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings CLO 2018-IV	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000			98-1473665				Barings CLO 2019-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings CLO 2019-II	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings CLO 2019-III	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings CLO 2019-IV	.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			36-037260H				Babson Euro CLO 2019-I BV	.IRL	NIA	Barings LLC	Influence		MMLIC		
.0000							Babson Euro CLO 2019-II BV	.IRL	NIA	Barings LLC	Influence		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			Massachusetts Mutual Life Insurance Company	Ownership/Influence	44.800	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	.GBR	NIA	Company	Ownership/Influence	44.800	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	.GBR	NIA	C.M. Life Insurance Company	Ownership	5.000	MMLIC		
.0000							Barings Real Estate European Value Add I SCSp	.GBR	NIA	Barings LLC	Management		MMLIC		
.0000			82-5330194				Barings Global Em. Markets Equity Fund	.NC	NIA	Barings LLC	Management		MMLIC		
.0000			98-1332384				Barings Global Energy Infrastructure Fund I LP	.CYM	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	94.300	MMLIC		
.0000			98-1332384				Barings Global Energy Infrastructure Fund I LP	.CYM	NIA	Barings Asset Management Limited	Management		MMLIC		
.0000							Barings Global Inv. Grade Strat Fund	.IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Private Loan Fund	.LUX	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	12.200	MMLIC		
.0000							Barings Global Private Loan Fund	.LUX	NIA	Barings LLC	Management		MMLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	.DE	NIA	Company	Ownership/Influence	43.100	MMLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	.DE	NIA	C.M. Life Insurance Company	Ownership	7.600	MMLIC		
.0000			82-3867745				Barings Global Real Assets Fund LP	.DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Global Special Situations Credit Fund 3	.IRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	19.800	MMLIC		
.0000							Barings Global Special Situations Credit Fund 3	.IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Barings Middle Market CLO 2017-I Ltd & LLC	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Middle Market CLO 2018-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000							Barings Middle Market CLO 2019-I	.CYM	NIA	Barings LLC	Influence		MMLIC		
.0000			38-4010344				Barings North American Private Loan Fund LP	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	45.600	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	Massachusetts Mutual Life Insurance Company	Ownership/Influence	34.300	MMLIC		
.0000			98-1332384				Barings RE Credit Strategies VII LP	.DE	NIA	Barings Asset Management Limited	Management		MMLIC		
.0000			26-4142796				Barings International Small Cap Equity Fund	.DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	9.700	MMLIC		
.0000			26-4142796				Barings International Small Cap Equity Fund	.DE	NIA	Barings Asset Management Limited	Management		MMLIC		

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.0000							Braemar Energy Ventures I, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	89.900	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	1.300	MMLIC		
.0000							Braemar Energy Ventures I, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Barings European Core Property Fund SCSp	LUX	NIA	MassMutual Holding LLC	Ownership/Influence	12.500	MMLIC		
.0000							Barings European Core Property Fund SCSp	LUX	NIA	C.M. Life Insurance Company	Ownership	0.800	MMLIC		
.0000							Barings European Core Property Fund SCSp	LUX	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000			38-4059932				Benchmark 2018-B2 Mortgage Trust	NY	NIA	Barings LLC	Influence		MMLIC		
.0000							Benchmark 2018-B4	NY	NIA	Barings LLC	Influence		MMLIC		
.0000			38-4096530				Benchmark 2018-B8	NY	NIA	Barings LLC	Influence		MMLIC		
.0000			04-1590850				Braselton Point LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	15.700	MMLIC		
.0000			20-5578089				Barings Core Property Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000							Cornerstone Real Estate Fund X LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	24.800	MMLIC		
.0000							Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	2.800	MMLIC		
.0000							Cornerstone Real Estate Fund X LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
.0000							Cornerstone Permanent Mortgage Fund III LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	98.600	MMLIC		
.0000							Cornerstone Permanent Mortgage Fund IV LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.600	MMLIC		
.0000							Gateway Mezzanine Partners II LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	34.800	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							Gateway Mezzanine Partners II LP	DE	NIA	Barings LLC	Management		MMLIC		
.0000							Great Lakes III, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	41.200	MMLIC		
.0000			37-1708623				Great Lakes III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000							JPMCC Commercial Mortgage Securities Trust 2017-JP7	NY	NIA	Barings LLC	Influence		MMLIC		
.0000							JPMDB Commercial Mortgage Securities Trust 2017-C5	NY	NIA	Barings LLC	Influence		MMLIC		
.0000							KKR-MM Vector LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	62.500	MMLIC		
.0000							Marco Hotel LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Miami Douglas One GP LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	84.500	MMLIC		
.0000			04-1590850				Miami Douglas One GP LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.500	MMLIC		
.0000							Miami Douglas Two GP LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			04-1590850				Miami Douglas Two GP LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
.0000							Miami Douglas Two LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	89.900	MMLIC		
.0000			04-1590850				Miami Douglas Two LP	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
.0000							HB Naples Golf Owner LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							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							RB Apartments LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000							Reston Arboretum LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		

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SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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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							Rockall QLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC		
.0000			54-2055778				Rockville Town Center LLC	VA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-8856877				Somerset Special Opportunities Fund L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	59.000	MMLIC		
.0000			20-8856877				Somerset Special Opportunities Fund L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	2.900	MMLIC		
.0000			35-2553915				Ten Fan Pier Boulevard LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			30-0336246				Tower Square Capital Partners II, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	22.400	MMLIC		
.0000			30-0336246				Tower Square Capital Partners II, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	3.900	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			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	18.000	MMLIC		
.0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	92.100	MMLIC		
.0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
.0000			80-0920367				Tower Square Capital Partners IV-A, L.P.	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	21.300	MMLIC		
.0000			04-1590850				Trailside MM Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	59.600	MMLIC		
.0000			04-1590850				Trailside MM Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.400	MMLIC		
.0000			83-1325764				Washington Gateway Two LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	88.300	MMLIC		
.0000			83-1325764				Washington Gateway Two LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.700	MMLIC		
.0000			32-0574045				Washington Gateway Three LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	83.600	MMLIC		
.0000			32-0574045				Washington Gateway Three LLC	DE	NIA	C.M. Life Insurance Company	Ownership	11.400	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 Short Duration Fund	IRL	NIA	Barings LLC	Management		MMLIC		
.0000							Babson Capital Loan Strategies Master Fund LP	CYM	NIA	Barings LLC	Management		MMLIC		
.0000			47-3790192				Barings Global High Yield Fund	MA	NIA	Barings LLC	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							CCIC Fund	CHN	NIA	Barings LLC	Influence		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			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	40.000	MMLIC		
.0000			36-4823011				50 Liberty LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	59.100	MMLIC		
.0000			36-4823011				50 Liberty LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.800	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	61.000	MMLIC		
.0000			80-0948028				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC		
.0000			81-4382111				Budapester Strasse LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			82-2285211				Calgary Railway Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		

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SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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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			82-2285211				Calgary Railway Holding LLC	DE	NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
.0000			82-3307907				Cornbrook PRS Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund I LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund II LLC	CA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			95-4207717				Cornerstone California Mortgage Fund III 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	84.100	MMLIC		
.0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.900	MMLIC		
.0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.300	MMLIC		
.0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Barings LLC	Management		MMLIC		
.0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	98.500	MMLIC		
.0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Barings LLC	Management		MMLIC		
.0000			61-1793735				Cornerstone Permanent Mortgage Fund IV	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-0890084				CREA Madison Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	90.000	MMLIC		
.0000			82-1563809				CCB Montford Park LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	75.200	MMLIC		
.0000			82-1563809				CCB Montford Park LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC		
.0000			82-2783393				Danville Riverwalk Venture, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	59.200	MMLIC		
.0000			20-3347091				Fan Pier Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.600	MMLIC		
.0000			81-5360103				Landmark Manchester Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			04-1590850				MM Island Member LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	51.000	MMLIC		
.0000			83-0881588				NoHo West Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			04-1590850				PACO France Logistics 2 LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			82-3393166				Portland 400 Sixth Manager LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.000	MMLIC		
.0000							Salomon Brothers Commercial Mortgage Trust 2001-MM	DE	NIA	Barings Real Estate Advisers LLC	Influence		MMLIC		
.0000			27-2977720				Savgrass Village Shopping Center LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	84.200	MMLIC		
.0000			27-2977720				Savgrass Village Shopping Center LLC	DE	NIA	C.M. Life Insurance Company	Ownership	15.800	MMLIC		
.0000			04-1590850				Spain Avalon Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			81-5273574				Three PW Office Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.100	MMLIC		
.0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	65.000	MMLIC		
.0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	C.M. Life Insurance Company	Ownership	35.000	MMLIC		
.0000			82-3250684				Unna, Dortmund Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		

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STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE Y

PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	96.300	MMLIC		
.0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	3.700	MMLIC		
.0000			20-5481477				Ygnatio Valley Funding	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
.0000			45-3168892				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	65.100	MMLIC		
.0000			26-3229251		0000927972	00	MassMutual Premier Strategic Emerging Markets Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	2.100	MMLIC		
.0000			04-3277550		0000927972	00	MassMutual Premier Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			14-1980900		0000916053	00	MassMutual Select Diversified International Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			01-0821120		0000916053	00	MassMutual Select Diversified Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.800	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	0.000	MMLIC		
.0000			42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	16.700	MMLIC		
.0000			02-0769954		0000916053	00	MassMutual Select Small Capital Value Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			04-3584140		0000916053	00	MassMutual Select Small Company Value Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	5.600	MMLIC		
.0000			82-3347422		0000916053	00	MassMutual Select T. Rowe Price Retirement 2005 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	6.900	MMLIC		
.0000			82-3355639		0000916053	00	MassMutual Select T. Rowe Price Retirement 2010 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3382389		0000916053	00	MassMutual Select T. Rowe Price Retirement 2015 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3396442		0000916053	00	MassMutual Select T. Rowe Price Retirement 2020 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3417420		0000916053	00	MassMutual Select T. Rowe Price Retirement 2025 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3430358		0000916053	00	MassMutual Select T. Rowe Price Retirement 2030 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3439837		0000916053	00	MassMutual Select T. Rowe Price Retirement 2035 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3451779		0000916053	00	MassMutual Select T. Rowe Price Retirement 2040 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3472295		0000916053	00	MassMutual Select T. Rowe Price Retirement 2045 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3481715		0000916053	00	MassMutual Select T. Rowe Price Retirement 2050 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3502011		0000916053	00	MassMutual Select T. Rowe Price Retirement 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3525148		0000916053	00	MassMutual Select T. Rowe Price Retirement 2060 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			82-3533944		0000916053	00	MassMutual Select T. Rowe Price Retirement Balanced Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		

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.0000			46-4257056				MML Series International Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			47-3517233				MML Series II Asset Momentum Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
.0000			47-3529636				MML Series II Dynamic Bond Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			47-3544629				MML Series II Equity Rotation Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	95.000	MMLIC		
.0000			47-3559064				MML Series II Special Situations Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	97.200	MMLIC		
.0000			27-1933828		0000916053	OQ	MassMutual RetireSMART 2015 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			27-1933389		0000916053	OQ	MassMutual RetireSMART 2035 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	4.500	MMLIC		
.0000			27-1932769		0000916053	OQ	MassMutual RetireSMART 2045 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	10.200	MMLIC		
.0000			46-3289207		0000916053	OQ	MassMutual RetireSMART 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	30.900	MMLIC		
.0000			47-5326235		0000916053	OQ	MassMutual RetireSMART 2060 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	65.800	MMLIC		
.0000			45-1618155		0000916053	OQ	MassMutual RetireSMART Conservative Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			45-1618222		0000916053	OQ	MassMutual RetireSMART Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			03-0532464		0000916053	OQ	MassMutual RetireSMART In Retirement Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	1.600	MMLIC		
.0000			45-1618262		0000916053	OQ	MassMutual RetireSMART Moderate Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
.0000			45-1618046		0000916053	OQ	MassMutual RetireSMART Moderate Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		

Asterisk	Explanation
1	Massachusetts Mutual Life Insurance Company owns 14.23% of the affiliated debt of Jefferies Finance LLC
2	Debt investors own .6% and includes only Great Lakes III, L.P.
3	Debt investors own 9.6% and includes only Babson Capital Loan Strategies Fund, L.P.
4	Debt investors own .5% and includes only Great Lakes III, L.P.
5	Debt investors own .2% and includes only Great Lakes III, L.P.

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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
8. Will the Life PBR Statement of Exemption be filed with the state of domicile by July 1st and electronically with the NAIC with the second quarterly filing per the Valuation Manual (by August 15)? (2nd Quarter Only) The response for 1st and 3rd quarters should be N/A. A NO response resulting with a bar code is only appropriate in the 2nd quarter.	N/A

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, 2020 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. Commissions and expenses on long term lease	87,998,010	87,998,011		
2505. Fully refundable deposits, prepayments and miscellaneous assets	80,944,100	76,507,463	4,436,637	387,073,981
2506. Intangible assets	75,034,438	75,034,438		
2507. Employee insurance plan advances	41,946,196	13,787	41,932,409	41,116,887
2508. Investment In trust	23,581,402		23,581,402	27,672,460
2509. Bills receivable	712,819	712,819		
2597. Summary of remaining write-ins for Line 25 from overflow page	310,216,967	240,266,518	69,950,450	455,863,328

Additional Write-ins for Liabilities Line 25

	1 Current Statement Date	2 December 31 Prior Year
2504. Funds awaiting escheat and other miscellaneous liabilities	91,730,669	89,764,821
2505. Deferred income liability	13,959,786	14,159,691
2597. Summary of remaining write-ins for Line 25 from overflow page	105,690,455	103,924,512

Additional Write-ins for Summary of Operations Line 8.3

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
08.304. Miscellaneous income	10,003,058	8,858,593	43,132,268
08.305. Change in corporate owned life insurance	(71,392,826)	63,983,568	174,697,108
08.397. Summary of remaining write-ins for Line 8.3 from overflow page	(61,389,768)	72,842,161	217,829,376

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. Reinsurance ceded adjustment	(3,461,937)	(3,453,020)	(13,812,078)
2705. Ceded income on funds withheld	52,018,414	51,471,797	204,914,037
2706. Miscellaneous charges to operations	3,171,921	6,951,259	40,063,004
2797. Summary of remaining write-ins for Line 27 from overflow page	51,728,398	54,970,036	231,164,963

Additional Write-ins for Summary of Operations Line 53

	1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
5304. Change in minimum pension liability			(68,071,660)
5397. Summary of remaining write-ins for Line 53 from overflow page			(68,071,660)

STATEMENT AS OF MARCH 31, 2020 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	358,212,616	488,306,553
2. Cost of acquired:		
2.1 Actual cost at time of acquisition		78,792,713
2.2 Additional investment made after acquisition	36,777,559	99,590,730
3. Current year change in encumbrances	(26,812,000)	(58,736,210)
4. Total gain (loss) on disposals		74,240,741
5. Deduct amounts received on disposals		191,891,888
6. Total foreign exchange change in book/adjusted carrying value		
7. Deduct current year's other than temporary impairment recognized		40,793,428
8. Deduct current year's depreciation	21,674,619	91,296,595
9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8)	346,503,556	358,212,616
10. Deduct total nonadmitted amounts		
11. Statement value at end of current period (Line 9 minus Line 10)	346,503,556	358,212,616

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	27,472,894,866	23,623,807,529
2. Cost of acquired:		
2.1 Actual cost at time of acquisition	1,464,720,760	5,802,607,047
2.2 Additional investment made after acquisition	79,079,988	407,941,377
3. Capitalized deferred interest and other	12,709,265	47,785,824
4. Accrual of discount	3,738,561	8,298,786
5. Unrealized valuation increase (decrease)		
6. Total gain (loss) on disposals	778,926	2,756,536
7. Deduct amounts received on disposals	881,607,051	2,514,218,880
8. Deduct amortization of premium and mortgage interest points and commitment fees	2,588,914	3,184,496
9. Total foreign exchange change in book value/recorded investment excluding accrued interest	(176,221,525)	97,101,143
10. Deduct current year's other than temporary impairment recognized		
11. Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	27,973,504,876	27,472,894,866
12. Total valuation allowance		
13. Subtotal (Line 11 plus Line 12)	27,973,504,876	27,472,894,866
14. Deduct total nonadmitted amounts		
15. Statement value at end of current period (Line 13 minus Line 14)	27,973,504,876	27,472,894,866

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	9,072,179,122	8,643,322,029
2. Cost of acquired:		
2.1 Actual cost at time of acquisition	175,166,104	546,154,933
2.2 Additional investment made after acquisition	225,966,480	1,054,111,991
3. Capitalized deferred interest and other		
4. Accrual of discount		
5. Unrealized valuation increase (decrease)	149,621,048	772,689,310
6. Total gain (loss) on disposals	4,686,982	126,189,366
7. Deduct amounts received on disposals	280,221,173	2,102,972,280
8. Deduct amortization of premium and depreciation	221,132	741,103
9. Total foreign exchange change in book/adjusted carrying value	(83,801,494)	69,826,426
10. Deduct current year's other than temporary impairment recognized	154,557	36,401,550
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	9,263,221,380	9,072,179,122
12. Deduct total nonadmitted amounts	59,648,731	60,352,690
13. Statement value at end of current period (Line 11 minus Line 12)	9,203,572,649	9,011,826,432

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	120,811,328,057	110,650,590,353
2. Cost of bonds and stocks acquired	9,727,944,791	29,778,484,140
3. Accrual of discount	69,189,212	255,360,217
4. Unrealized valuation increase (decrease)	(74,976,280)	4,504,768,568
5. Total gain (loss) on disposals	20,899,014	197,349,566
6. Deduct consideration for bonds and stocks disposed of	6,241,726,468	24,633,640,825
7. Deduct amortization of premium	30,347,916	117,639,005
8. Total foreign exchange change in book/adjusted carrying value	(751,893,431)	224,899,740
9. Deduct current year's other than temporary impairment recognized	126,334,338	111,115,686
10. Total investment income recognized as a result of prepayment penalties and/or acceleration fees	10,397,088	62,270,989
11. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	123,414,479,729	120,811,328,057
12. Deduct total nonadmitted amounts	189,047	189,047
13. Statement value at end of current period (Line 11 minus Line 12)	123,414,290,682	120,811,139,010

STATEMENT AS OF MARCH 31, 2020 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
BONDS								
1. NAIC 1 (a)	53,813,591,576	21,020,762,777	14,911,173,509	(83,983,251)	59,839,197,593			53,813,591,576
2. NAIC 2 (a)	41,011,157,082	70,965,628,161	67,101,161,589	337,270,950	45,212,894,604			41,011,157,082
3. NAIC 3 (a)	6,238,245,668	2,259,446,242	1,220,777,137	109,554,413	7,386,469,186			6,238,245,668
4. NAIC 4 (a)	1,737,309,727	878,178,747	536,962,628	(201,055,018)	1,877,470,828			1,737,309,727
5. NAIC 5 (a)	1,918,559,870	91,277,240	125,895,560	62,834,714	1,946,776,264			1,918,559,870
6. NAIC 6 (a)	464,363,171	3,020,578	61,196,717	16,663,759	422,850,792			464,363,171
7. Total Bonds	105,183,227,094	95,218,313,745	83,957,167,140	241,285,567	116,685,659,266			105,183,227,094
PREFERRED STOCK								
8. NAIC 1	443,850,000			(92,850,000)	351,000,000			443,850,000
9. NAIC 2	130,181,688			85,238,000	215,419,688			130,181,688
10. NAIC 3	141,021,927				141,021,927			141,021,927
11. NAIC 4								
12. NAIC 5	22,047,657	36,630	495,483	(11,008)	21,577,796			22,047,657
13. NAIC 6	11,782,864			(2,058,033)	9,724,831			11,782,864
14. Total Preferred Stock	748,884,136	36,630	495,483	(9,681,041)	738,744,242			748,884,136
15. Total Bonds and Preferred Stock	105,932,111,230	95,218,350,375	83,957,662,623	231,604,526	117,424,403,508			105,932,111,230

(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 \$ 5,877,071,101 ; NAIC 2 \$ 4,919,658,035 ; NAIC 3 \$ 130,939,309 ; NAIC 4 \$ 142,276,923 ; NAIC 5 \$; NAIC 6 \$

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SCHEDULE DA - PART 1

Short-Term Investments

	1	2	3	4	5
	Book/Adjusted Carrying Value	Par Value	Actual Cost	Interest Collected Year-to-Date	Paid for Accrued Interest Year-to-Date
9199999 Totals	3,079,777,620	xxx	3,075,088,315		

SCHEDULE DA - VERIFICATION

Short-Term Investments

	1	2
	Year To Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	1,159,172,265	447,734,452
2. Cost of short-term investments acquired	3,382,996,330	3,175,979,903
3. Accrual of discount	5,956,050	18,740,444
4. Unrealized valuation increase (decrease)		
5. Total gain (loss) on disposals	301	109,655
6. Deduct consideration received on disposals	1,468,413,050	2,483,392,190
7. Deduct amortization of premium	(65,724)	
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)	3,079,777,620	1,159,172,265
11. Deduct total nonadmitted amounts		
12. Statement value at end of current period (Line 10 minus Line 11)	3,079,777,620	1,159,172,265

STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART A - VERIFICATION

Options, Caps, Floors, Collars, Swaps and Forwards

1. Book/Adjusted Carrying Value, December 31, prior year (Line 10, prior year)	2,563,068,316
2. Cost Paid/(Consideration Received) on additions	192,719,276
3. Unrealized Valuation increase/(decrease)	5,565,101,375
4. SSAP No. 108 adjustments	
5. Total gain (loss) on termination recognized	585,319,466
6. Considerations received/(paid) on terminations	796,503,044
7. Amortization	(437,245)
8. Adjustment to the Book/Adjusted Carrying Value of hedged item	
9. Total foreign exchange change in Book/Adjusted Carrying Value	
10. Book/Adjusted Carrying Value at End of Current Period (Lines 1+2+3+4+5-6+7+8+9)	8,109,268,144
11. Deduct nonadmitted assets	
12. Statement value at end of current period (Line 10 minus Line 11)	8,109,268,144

SCHEDULE DB - PART B - VERIFICATION

Futures Contracts

1. Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)	(107,780,033)
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	506,097,820
3.14 Section 1, Column 18, prior year	(107,780,033)
	613,877,853
	613,877,853
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	506,097,820
3.24 Section 1, Column 19, prior year	(107,780,033)
3.25 SSAP No. 108 adjustments	
	613,877,853
	613,877,853
3.3 Subtotal (Line 3.1 minus Line 3.2)	
4.1 Cumulative variation margin on terminated contracts during the year	320,342,642
4.2 Less:	
4.21 Amount used to adjust basis of hedged item	
4.22 Amount recognized	320,342,642
4.23 SSAP No. 108 adjustments	
	320,342,642
4.3 Subtotal (Line 4.1 minus Line 4.2)	
5. Dispositions gains (losses) on contracts terminated in prior year:	
5.1 Total gain (loss) recognized for terminations in prior year	
5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year	398,317,787
6. Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)	(506,097,820)
7. Deduct total nonadmitted amounts	
8. Statement value at end of current period (Line 6 minus Line 7)	(506,097,820)

STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

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

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1	50,000,000	13,060,304	29,860,996	10/01/2012	10/01/2042	Interest Rate Swap	17,780,137	17,780,137	42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	13,060,304	12,080,859
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1		11,635,362	12,309,505	10/01/2012	10/01/2042	Interest Rate Swap			320808-AD-0	FIRST MARYLAND CAP I-LIMITED GUARANTEE NOTE	2	11,635,362	12,309,505
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1		17,920,020	17,037,481	10/01/2012	10/01/2042	Interest Rate Swap			38136M-AC-2	Goldentree Loan Management US Clo 2 Ltd	1	17,920,020	17,037,481
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1		10,000,000	8,950,020	10/01/2012	10/01/2042	Interest Rate Swap			09629L-AE-5	BLUEMOUNTAIN CLO XXIII L-BLUEM 2018-23A B	1	10,000,000	8,950,020
57629*AA9	Evergreen Basket of Long Fixed Rate Corp Inv Grade Equiv Bonds	1		5,000,000	4,243,205	10/01/2012	10/01/2042	Interest Rate Swap			03328Y-AG-9	Anchorage Capital CLO Lt-ANCHC 2018-1RA C	1	5,000,000	4,243,205
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1	50,000,000	2,483,711	20,200,520	10/01/2012	10/01/2042	Interest Rate Swap	17,716,809	17,716,809	77277L-A7-2	ROCKALL CLO BV Variable Funding Note- USD	1	2,483,711	2,483,711
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		3,749,464	3,711,192	10/01/2012	10/01/2042	Interest Rate Swap			83149E-AG-2	SLM STUDENT LN TR 2006-5-NOTE CL B	1	3,749,464	3,711,192
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		5,470,000	4,801,293	10/01/2012	10/01/2042	Interest Rate Swap			883310-AE-4	THAYER PARK CLO LTD.-THAYR 2017-1A B	1	5,470,000	4,801,293
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		6,430,000	5,991,345	10/01/2012	10/01/2042	Interest Rate Swap			77342K-AA-8	ROCKFORD TOWER CLO 2018-ROCKT 2018-2A A	1	6,430,000	5,991,345
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		8,000,000	7,275,616	10/01/2012	10/01/2042	Interest Rate Swap			09628F-AE-9	BlueMountain Fuji US Clo-SERIES 2017-3A CLASS B	1	8,000,000	7,275,616
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		4,000,000	3,607,580	10/01/2012	10/01/2042	Interest Rate Swap			13876J-AE-2	Canyon Capital CLO Ltd-CANVC 2012-1RA B	1	4,000,000	3,607,580
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		15,000,000	13,882,380	10/01/2012	10/01/2042	Interest Rate Swap			88432U-AC-0	Wind River CLO Ltd-SERIES 18-3A CLASS A2	1	15,000,000	13,882,380
57629*AB7	Evergreen Basket of Long Fixed Rate Bank Loans B- or Above	1		6,800,000	6,045,166	10/01/2012	10/01/2042	Interest Rate Swap			03762Y-AH-0	Apidos Clo XXV-APID 2016-25A A2R	1	6,800,000	6,045,166
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	264,000,000	19,165,000	111,257,452	11/29/2012	11/29/2042	Interest Rate Swap	93,240,435	93,240,435	14316R-ZZ-6	Carlyle US CLO 2017-5 Re Term Loan	1	19,165,000	18,017,017
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,925,457	11,694,016	11/29/2012	11/29/2042	Interest Rate Swap			83149F-AD-6	SLM Student Loan Trust 2006-6	1	11,925,457	11,694,016
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,551,662	21,793,259	11/29/2012	11/29/2042	Interest Rate Swap			375415-AA-4	GILBERT PARK CLO LTD-SERIES 17-1A CLASS A	1	22,551,662	21,793,259
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	11,835,882	11/29/2012	11/29/2042	Interest Rate Swap			14310D-AY-3	CARLYLE GLOBAL MKT STRATEGIES CLO 2013-2 LTD MEZZ SEC2 DEF NT	1	13,500,000	11,835,882
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,100,000	12,051,332	11/29/2012	11/29/2042	Interest Rate Swap			67097Q-AC-9	OPC CLO 2017-14 Ltd-SERIES 17-14A CLASS A1B	1	13,100,000	12,051,332
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		72,136,608	76,193,094	11/29/2012	11/29/2042	Interest Rate Swap			57542Z-AO-7	MASSMUTUAL ASSET FIN LLC SR SEC2 REV NT	3	72,136,608	76,193,094
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		64,935,814	63,378,653	11/29/2012	11/29/2042	Interest Rate Swap			126611-AL-6	CVP CASCADE CLO LTD-CVPC 2014-2A A1R	1	64,935,814	63,378,653
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,200,000	5,417,523	11/29/2012	11/29/2042	Interest Rate Swap			94950G-AE-7	WELLFLEET CLO LTD-WELF 2017-1A B	1	6,200,000	5,417,523
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,525,000	4,911,813	11/29/2012	11/29/2042	Interest Rate Swap			01748R-AE-5	ALLEGRO CLO V LTD-SERIES 17-1A CLASS MEZ, FLT	1	5,525,000	4,911,813
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,873,095	11/29/2012	11/29/2042	Interest Rate Swap			38137M-AK-3	Goldentree Loan Oppor tun-GLD12 2016-12A AJR	1	15,000,000	13,873,095
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,500,000	3,770,582	11/29/2012	11/29/2042	Interest Rate Swap			03767M-AJ-7	Apidos CLO-APID 2018-29A B	1	4,500,000	3,770,582
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,694,775	11/29/2012	11/29/2042	Interest Rate Swap			17181T-AA-9	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A1	1	5,000,000	4,694,775
57629*AC5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,000,000	10,750,728	11/29/2012	11/29/2042	Interest Rate Swap			04017J-AE-1	ARES CLO Ltd-ARES 2018-49A B	1	12,000,000	10,750,728
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	12,000,000	49,899,387	12/27/2012	12/27/2042	Interest Rate Swap	39,399,027	39,399,027	67112K-AC-3	OPC CLO Ltd-SEREIS 18-15A CLASS A3	1	12,000,000	10,500,360
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,409,364	12/27/2012	12/27/2042	Interest Rate Swap			83609R-AE-1	SOUND POINT CLO LTD-SNDPT 2017-1A C	1	4,000,000	3,409,364
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,800,000	21,559,680	12/27/2012	12/27/2042	Interest Rate Swap			14315J-YY-9	Carlyle US CLO 2017-3 Ri Term Loan	1	22,800,000	21,559,680
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,200,000	2,979,882	12/27/2012	12/27/2042	Interest Rate Swap			03330A-AC-6	Anchorage Capital CLO 3-ANCHC 2014-3RA B	1	3,200,000	2,979,882
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		33,000,000	30,372,837	12/27/2012	12/27/2042	Interest Rate Swap			87271L-AJ-1	TIAA CLO I Ltd-TIA 2016-1A AR	1	33,000,000	30,372,837

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STATEMENT AS OF MARCH 31, 2020 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*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,800,000	8,131,605	12/27/2012	12/27/2042	Interest Rate Swap			14310D-AW-7	Carlyle Global Market St-SERIES 2013-2A CLASS BR	1	8,800,000	8,131,605
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,899,187	16,354,496	12/27/2012	12/27/2042	Interest Rate Swap			24820R-AA-6	Statoil ASA-SENIOR UNSECURED NOTE C1FC Funding 2017-IV Ltd-SERIES 17-4A CLASS B	1	13,899,187	16,354,496
57629*AE1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,956,247	4,311,630	12/27/2012	12/27/2042	Interest Rate Swap			12551J-AG-1	WACHOVIA STUDENT LOAN TR-WSLT 2005-1 B	1	4,956,247	4,311,630
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	12,588,153	51,772,378	12/27/2012	12/27/2042	Interest Rate Swap		39,399,027	92977H-AG-3	ATRIUM CDO CORP-SERIES 9A CLASS BR	1	12,588,153	12,373,351
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,990,000	17,441,935	12/27/2012	12/27/2042	Interest Rate Swap			04964K-AN-1	Newark BSL CLO 2 Ltd	1	18,990,000	17,441,935
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		30,000,000	28,577,610	12/27/2012	12/27/2042	Interest Rate Swap			65023P-AC-4	Babson CLO Ltd/Cayman Is-BABSN 2018-3A A2	1	30,000,000	28,577,610
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,000,000	21,309,891	12/27/2012	12/27/2042	Interest Rate Swap			06760P-AE-1	Madison Park Funding Ltd-SERIES 18-28A CLASS B	1	23,000,000	21,309,891
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,500,000	8,553,648	12/27/2012	12/27/2042	Interest Rate Swap			55821A-AE-8	ARROWMARK COLORADO HOLDI-SERIES 17-7A CLASS B	1	9,500,000	8,553,648
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,488,624	12/27/2012	12/27/2042	Interest Rate Swap			28622J-AB-3	Magnetite XXIV Ltd-SERIES 2019-24A CLASS B	1	4,000,000	3,488,624
57629*AD3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,750,000	4,295,672	12/27/2012	12/27/2042	Interest Rate Swap			55954W-AC-3	Goldentree Loan Managem-GLM 2018-3A B1	1	4,750,000	4,295,672
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	6,000,000	45,478,212	12/28/2012	12/28/2042	Interest Rate Swap		39,945,978	38138B-AG-5	Marble Point CLO XIV Ltd-HP14 2018-2A A	1	6,000,000	5,532,234
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		29,893,202	27,884,670	12/28/2012	12/28/2042	Interest Rate Swap			56608K-AA-1	TICP CLO VI 2016-2 Ltd-SERIES 2016-6A CLASS BR	1	29,893,202	27,884,670
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,398,610	12/28/2012	12/28/2042	Interest Rate Swap			87246M-AJ-1	MADISON PARK FUNDING LTD-SERIES 2015-16A CLASS BR	1	10,000,000	9,398,610
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,589,002	12/28/2012	12/28/2042	Interest Rate Swap			55818X-BA-0	WIND RIVER CLO LTD-WINDR 2017-1A B	1	7,000,000	6,589,002
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,050,000	10,065,368	12/28/2012	12/28/2042	Interest Rate Swap			88432M-AC-8	Crestline Denali CLO XIV-SERIES16-1A CLASS A1R	1	11,050,000	10,065,368
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,000,000	21,064,918	12/28/2012	12/28/2042	Interest Rate Swap			22615M-AL-6	Tryon Park CLO Ltd-TPCLO 2013-1A A1JR	1	23,000,000	21,064,918
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,416,120	12/28/2012	12/28/2042	Interest Rate Swap			89852T-AN-8	TICP CLO VI 2016-5 LTD-TICP 2016-5A A2R	1	8,000,000	7,416,120
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,767,059	12/28/2012	12/28/2042	Interest Rate Swap			87248K-AS-3	Wellfleet CLO Ltd-SERIES 18-1A CLASS A	1	3,000,000	2,767,059
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	934,040	12/28/2012	12/28/2042	Interest Rate Swap			94950J-AA-9	HPS LOAN MANAGEMENT 13-2-HLM 13A-18 A2	1	1,000,000	934,040
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,692,112	12/28/2012	12/28/2042	Interest Rate Swap			40437L-AE-2	Voya CLO Ltd-SERIES 18-1A CLASS B	1	4,000,000	3,692,112
57629*AF8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,060,000	4,194,138	12/28/2012	12/28/2042	Interest Rate Swap			92917A-AE-6	Wellfleet CLO Ltd-SERIES 18-1A CLASS A	1	5,060,000	4,194,138
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	59,000,000	95,054,338	12/28/2012	12/28/2042	Interest Rate Swap		39,945,978	94950J-AA-9	BABSON CLO LTD 2015-11-SERIES 15-2A CLASS AR	1	59,000,000	55,108,360
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,200,000	13,464,298	12/28/2012	12/28/2042	Interest Rate Swap			06759F-AB-2	Ares XXXIR CLO Ltd-SERIES 14-31RA CLASS B	1	14,200,000	13,464,298
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	17,710,320	12/28/2012	12/28/2042	Interest Rate Swap			04017T-AE-9	MADISON PARK FUNDING LTD-SERIES 15-17A CLASS B1R	1	20,000,000	17,710,320
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,700,000	11,616,817	12/28/2012	12/28/2042	Interest Rate Swap			55818Y-BE-0	C1FC Funding 2018-1 Ltd-SERIES 18-1A CLASS C	1	12,700,000	11,616,817
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,200,000	3,607,099	12/28/2012	12/28/2042	Interest Rate Swap			12551R-AE-8	Benefit Street Partners -BSP 2018-15A A2A	1	4,200,000	3,607,099
57629*AH4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,100,000	958,305	12/28/2012	12/28/2042	Interest Rate Swap			08179M-AC-3	BlueMountain CLO 2015-4 -SERIES 15-4A CLASS A2R	1	1,100,000	958,305
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	20,000,000	58,341,158	12/28/2012	12/28/2042	Interest Rate Swap		39,945,978	09628N-AQ-5	NetNet Student Loan Trus-SERIES 19-3A CLASS B	1	20,000,000	18,395,180
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,050,000	10,792,056	12/28/2012	12/28/2042	Interest Rate Swap			64031D-AB-6	Navient Student Loan Tru-SERIES 15-1 CLASS B	1	12,050,000	10,792,056
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,223,461	9,778,182	12/28/2012	12/28/2042	Interest Rate Swap			63939F-AC-4	C1FC Funding Ltd-C1FC 2018-5A B	1	12,223,461	9,778,182
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,299,870	12/28/2012	12/28/2042	Interest Rate Swap			12550G-AE-3		1	5,000,000	4,299,870

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STATEMENT AS OF MARCH 31, 2020 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*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,900,000	8,183,959	12/28/2012	12/28/2042	Interest Rate Swap			55820T-AC-2	MADISON PARK FUNDING LTD-SERIES 2017-23A CLASS B	1	8,900,000	8,183,959
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,650,000	7,478,556	12/28/2012	12/28/2042	Interest Rate Swap			33882G-AC-2	FLATIRON CLO LTD-FLAT 2017-1A C	1	8,650,000	7,478,556
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	887,985	12/28/2012	12/28/2042	Interest Rate Swap			48250R-BN-5	KKR CLO 12 Ltd-KKR 12 BR2	1	1,000,000	887,985
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,250,000	3,746,949	12/28/2012	12/28/2042	Interest Rate Swap			09626U-AQ-1	BLUEMOUNTAIN CLO LTD-BLUEM 2013-1A BR	1	4,250,000	3,746,949
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,000,000	23,717,075	12/28/2012	12/28/2042	Interest Rate Swap			64132D-AA-6	Neuberger Berman CLO Ltd-NEUB 2019-32A A	1	25,000,000	23,717,075
57629*AG6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,250,000	3,723,378	12/28/2012	12/28/2042	Interest Rate Swap			75888M-AG-5	Regatta XIV Funding Ltd-SERIES 18-3A CLASS B	1	4,250,000	3,723,378
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	9,550,000	28,553,625	12/28/2012	12/28/2042	Interest Rate Swap	19,972,988		04965F-AG-6	Atrium XV-SERIES 15A CLASS B	1	9,550,000	8,580,637
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,544,340	12/28/2012	12/28/2042	Interest Rate Swap			55819B-AL-4	MADISON PARK FUNDING XVI-SERIES 15-18A CLASS A1R	1	10,000,000	9,544,340
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,547,413	7,504,895	12/28/2012	12/28/2042	Interest Rate Swap			63940A-AD-0	NAVIENT STUDENT LOAN TRU-SERIES 17-4A CLASS B	1	9,547,413	7,504,895
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,200,000	7,619,348	12/28/2012	12/28/2042	Interest Rate Swap			03328W-AN-8	Anchorage Capital CLO 9-SERIES 16-9A CLASS CR	1	9,200,000	7,619,348
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,000,000	1,723,580	12/28/2012	12/28/2042	Interest Rate Swap			04019L-AG-9	ARES 2019-51A C	1	2,000,000	1,723,580
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,100,000	958,305	12/28/2012	12/28/2042	Interest Rate Swap			08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	958,305
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,500,000	2,254,738	12/28/2012	12/28/2042	Interest Rate Swap			13876J-AE-2	Canyon Capital CLO Ltd-CANYC 2012-18A B	1	2,500,000	2,254,738
57629*AJ0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,400,000	5,575,379	12/28/2012	12/28/2042	Interest Rate Swap			77342K-AC-4	Rockford Tower CLO 2018-2 Ltd	1	6,400,000	5,575,379
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	10,000,000	28,992,138	12/28/2012	12/28/2042	Interest Rate Swap	19,972,988		24380L-AE-3	DEER CREEK CLO LTD 2017-SERIES 17-1A CLASS B	1	10,000,000	9,019,150
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		30,000,000	27,408,240	12/28/2012	12/28/2042	Interest Rate Swap			04624W-AC-1	ASSURANT CLO III LTD-SERIES 2018-2A CLASS A	1	30,000,000	27,408,240
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,570,000	12,261,282	12/28/2012	12/28/2042	Interest Rate Swap			48249V-AQ-4	KKR FINANCIAL CLO LTD-SERIES 13-1A CLASS A2R	1	13,570,000	12,261,282
57629*AK7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,850,000	4,268,917	12/28/2012	12/28/2042	Interest Rate Swap			08179H-AB-6	BENEFIT STREET PARTNERS -SERIES 2017-12A CLASS A2	1	4,850,000	4,268,917
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	10,000,000	28,921,278	12/28/2012	12/28/2042	Interest Rate Swap	19,972,988		87232A-AE-4	TFLAT 2018-1A B	1	10,000,000	8,948,290
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,734,339	5,915,905	12/28/2012	12/28/2042	Interest Rate Swap			784170-ZZ-8	SFR FTTH SAS Term Loan	3	6,734,339	5,915,905
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,920,000	8,807,421	12/28/2012	12/28/2042	Interest Rate Swap			10302V-BC-8	BOWMAN PARK CLO LTD-BOWPK 2014-1A B1R	1	8,920,000	8,807,421
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,750,000	7,513,039	12/28/2012	12/28/2042	Interest Rate Swap			48252R-AE-4	KKR 24 B	1	8,750,000	7,513,039
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,840,000	6,163,510	12/28/2012	12/28/2042	Interest Rate Swap			88433R-AE-2	WIND RIVER CLO LTD-SERIES 17-2A CLASS B	1	6,840,000	6,163,510
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,559,095	12/28/2012	12/28/2042	Interest Rate Swap			50188Y-AB-0	LCM LTD PARTNERSHIP-LCM 24A B	1	5,000,000	4,559,095
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,100,000	958,305	12/28/2012	12/28/2042	Interest Rate Swap			08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	958,305
57629*AL5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,600,000	3,858,052	12/28/2012	12/28/2042	Interest Rate Swap			05875H-AE-3	Ballyrock CLO 2018-1 Ltd-SERIES 2018-1A CLASS B	1	4,600,000	3,858,052
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	5,400,000	24,884,644	12/28/2012	12/28/2042	Interest Rate Swap	19,972,988		12548J-AE-2	CIFC FUNDING LTD-SERIES 17-3A CLASS A2	1	5,400,000	4,911,656
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,900,000	10,982,272	12/28/2012	12/28/2042	Interest Rate Swap			74988L-AC-8	ALM XIV Ltd-SERIES 14-14A CLASS A2R2	1	11,900,000	10,982,272
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,650,000	3,944,246	12/28/2012	12/28/2042	Interest Rate Swap			29001L-AG-6	Elmwood CLO II Ltd-ELMW2 2019-2A C	1	4,650,000	3,944,246
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,500,000	3,938,603	12/28/2012	12/28/2042	Interest Rate Swap			50184K-AW-8	LCM LTD PARTNERSHIP-SERIES 13A CLASS CR	1	4,500,000	3,938,603
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,400,000	4,647,427	12/28/2012	12/28/2042	Interest Rate Swap			57542Z-AO-7	MASSMUTUAL ASSET FIN LLC SR SEC2 REV NT	3	4,400,000	4,647,427

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STATEMENT AS OF MARCH 31, 2020 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*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,200,000	9,547,899	12/28/2012	12/28/2042	Interest Rate Swap			08181B-AS-8	Benefit Street Partners -SERIES 16-9A CLASS BR	1	11,200,000	9,547,899
57629*AM3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,374,000	12/28/2012	12/28/2042	Interest Rate Swap			94951D-AC-7	Wellfleet CLO 2018-3 Ltd-SERIES 18-3A CLASS A1B	1	8,000,000	7,374,000
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	20,000,000	12/31/2012	12/31/2042	Interest Rate Swap		19,292,187	36248M-AJ-6	GT Loan Financing I Ltd -SERIES 2013-1A CLASS AR	1	20,000,000	18,796,420
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,837,500	19,935,236	12/31/2012	12/31/2042	Interest Rate Swap			14315J-MM-8	Carlyle US CLO 2013-2 Re Term Loan	1	20,837,500	19,935,236
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,350,000	3,598,533	12/31/2012	12/31/2042	Interest Rate Swap			88433C-AG-0	WINDR 2019-1A C	1	4,350,000	3,598,533
57629*AN1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,850,000	5,351,603	12/31/2012	12/31/2042	Interest Rate Swap			64131Q-AC-4	NEUBERGER BERMAN LOAN AD-SERIES 2017-26A CLASS B	1	5,850,000	5,351,603
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	9,900,000	12/31/2012	12/31/2042	Interest Rate Swap		19,292,187	67707C-AE-8	Oak Hill Credit Partners-OAKC 2014-10RA A2A	1	9,900,000	9,250,105
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,000,000	22,979,500	12/31/2012	12/31/2042	Interest Rate Swap			67104L-AF-4	OH Loan Funding 2013-2 -OHALF 2013-2A BR	1	25,000,000	22,979,500
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,850,000	12,761,819	12/31/2012	12/31/2042	Interest Rate Swap			38137P-AU-4	Goldentree Loan Opportun-SERIES 2015-10A CLASS BR	1	13,850,000	12,761,819
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,000,000	1,869,152	12/31/2012	12/31/2042	Interest Rate Swap			94184B-D8-9	Waters Corporation Gtd Senior Note Series H	2	2,000,000	1,869,152
57629*AP6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,800,000	3,155,968	12/31/2012	12/31/2042	Interest Rate Swap			74988L-AJ-3	ALM XIV Ltd-SERIES 14-14A CLASS BR2	1	3,800,000	3,155,968
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	44,292,187	12/31/2012	12/31/2042	Interest Rate Swap		19,292,187	500798-MO-4	KREF Lending VII 2018-3 Term Loan	1	25,000,000	25,000,000
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,074,840	12/31/2012	12/31/2042	Interest Rate Swap			48250W-AJ-4	KKR CLO 14 Ltd-KKR 14 BR	1	15,000,000	13,074,840
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,611,765	12/31/2012	12/31/2042	Interest Rate Swap			87248K-AS-3	TICP CLO VI 2016-5 LTD-TICP 2016-5A A2R	1	5,000,000	4,611,765
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,018,622	814,849	12/31/2012	12/31/2042	Interest Rate Swap			63939F-AC-4	Navient Student Loan Tru-SERIES 15-1 CLASS B	1	1,018,622	814,849
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,800,000	6,761,071	12/31/2012	12/31/2042	Interest Rate Swap			05875J-AB-5	Ballyrock CLO 2019-1 Ltd-BALLY 2019-1A A2	1	7,800,000	6,761,071
57629*A04	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,488,624	12/31/2012	12/31/2042	Interest Rate Swap			28622J-AB-3	ARROWMARK COLORADO HOLDI-SERIES 17-7A CLASS B	1	4,000,000	3,488,624
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	8,800,000	12/31/2012	12/31/2042	Interest Rate Swap		19,292,187	38137P-AS-9	Goldentree Loan Opportun-SERIES 2015-10A CLASS AJR	1	8,800,000	8,064,892
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,400,000	6,337,330	12/31/2012	12/31/2042	Interest Rate Swap			92916M-AC-5	VOYA CLO LTD-VOYA 2017-1A B	1	7,400,000	6,337,330
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,450,000	4,913,622	12/31/2012	12/31/2042	Interest Rate Swap			55819M-AE-6	Madison Park Funding Ltd-MDPK 2019-35A B	1	5,450,000	4,913,622
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	6,311,513	12/31/2012	12/31/2042	Interest Rate Swap			55819T-AU-5	Madison Park Funding XX -SERIES 2016-20A CLASS CR	1	7,500,000	6,311,513
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,900,000	12,738,321	12/31/2012	12/31/2042	Interest Rate Swap			03328Y-AE-4	Anchorage Capital CLO Lt-ANCHC 2018-TRA B	1	13,900,000	12,738,321
57629*AR2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,452,910	6,704,629	12/31/2012	12/31/2042	Interest Rate Swap			64034C-AB-5	Nelnet Student Loan Trus-NSLT 2019-1A B	1	7,452,910	6,704,629
57629*ASO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	8,300,000	12/31/2012	12/31/2042	Interest Rate Swap		19,292,187	05684D-AG-8	Bain Capital Credit CLO-BCC 2020-1A B FLOATING	1	8,300,000	7,242,049
57629*ASO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	6,834,120	12/31/2012	12/31/2042	Interest Rate Swap			83608G-AQ-9	Sound Point CLO II Ltd-SNDPT 2013-1A A2R	1	8,000,000	6,834,120
57629*ASO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,768,350	12/31/2012	12/31/2042	Interest Rate Swap			05682V-AC-9	Bain Capital Credit CLO -SERIES 18-2A CLASS A2	1	15,000,000	13,768,350
57629*ASO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,038,770	12/31/2012	12/31/2042	Interest Rate Swap			50188Q-AE-1	LCM XIX LTD PARTNERSHIP DEF MEZZ NT CL C	1	10,000,000	9,038,770
57629*ASO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,300,000	7,328,958	12/31/2012	12/31/2042	Interest Rate Swap			00900P-AE-5	AIMCO CLO Series 2018-B-SERIES 18-BA CLASS B	1	8,300,000	7,328,958
57629*ASO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,100,000	958,305	12/31/2012	12/31/2042	Interest Rate Swap			08179M-AC-3	Benefit Street Partners -BSP 2018-15A A2A	1	1,100,000	958,305
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		50,000,000	28,435,047	12/31/2012	12/31/2042	Interest Rate Swap		19,292,187	87248N-AC-2	TICP CLO VIII LTD-SERIES 2017-8A CLASS A2	1	10,000,000	9,142,860
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,900,000	5,408,147	12/31/2012	12/31/2042	Interest Rate Swap			48251F-AB-7	KKR FINANCIAL CLO LTD-SERIES 17 CLASS B	1	5,900,000	5,408,147

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STATEMENT AS OF MARCH 31, 2020 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*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,000,000	10,356,444	12/31/2012	12/31/2042	Interest Rate Swap			92917J-AE-7	Voya CLO 2018-2 Ltd-VOYA 2018-2A B1	1	12,000,000	10,356,444
57629*AT8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,650,000	21,150,570	12/31/2012	12/31/2042	Interest Rate Swap			14315C-ZZ-0	Carlyle US CLO 2017-4 Ri Term Loan	1	22,650,000	21,150,570
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	7,400,000	29,386,144	04/09/2013	04/09/2043	Interest Rate Swap		22,646,453	55954H-AE-2	Magnetite CLO Ltd-SERIES 19-22A CLASS B	1	7,400,000	6,739,691
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,600,000	4,909,542	04/09/2013	04/09/2043	Interest Rate Swap			12550Y-AG-9	CIFC FUNDING LTD-CIFC 2017-2A C	1	5,600,000	4,909,542
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,280,000	3,919,243	04/09/2013	04/09/2043	Interest Rate Swap			09629C-AE-5	BLUEMOUNTAIN CLO LTD-SERIES 17-1A CLASS B	1	4,280,000	3,919,243
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,250,000	4,000,466	04/09/2013	04/09/2043	Interest Rate Swap			00163K-AS-7	ALM LOAN FUNDING-ALM 2013-TRA A2R	1	4,250,000	4,000,466
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,903,245	18,848,273	04/09/2013	04/09/2043	Interest Rate Swap			12553D-AA-5	CIFC Funding 2019-I Ltd-CIFC 2019-1A A	1	19,903,245	18,848,273
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	6,590,528	04/09/2013	04/09/2043	Interest Rate Swap			77342J-AC-7	Rockford Tower CLO 2018--SERIES 18-1A CLASS B	1	7,500,000	6,590,528
57629*AI1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,900,000	6,373,013	04/09/2013	04/09/2043	Interest Rate Swap			65023T-AK-8	Newark BSL CLO 1 Ltd-NBCLO 2016-1A A2R	1	6,900,000	6,373,013
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	30,108,819	51,154,871	04/09/2013	04/09/2043	Interest Rate Swap		24,705,221	784170-ZZ-8	SFR FTTH SAS Term Loan	3	30,108,819	26,449,650
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		18,500,000	16,790,175	04/09/2013	04/09/2043	Interest Rate Swap			501886-AX-1	LCM XVIII LP-LCM 18A A2R	1	18,500,000	16,790,175
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,800,000	12,224,358	04/09/2013	04/09/2043	Interest Rate Swap			671020-AK-4	QHA CREDIT PARTNERS LTD-SERIES 2012-7A CLASS B1R	1	12,800,000	12,224,358
57629*AV3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,000,000	1,832,176	04/09/2013	04/09/2043	Interest Rate Swap			62848F-AC-6	MYERS PARK CLO LTD-MYERS 2018-1A A2	1	2,000,000	1,832,176
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	26,000,000	46,195,423	04/09/2013	04/09/2043	Interest Rate Swap		22,391,487	83609Y-AC-0	Sounds Point CLO IV-R LT-SERIES 13-3RA CLASS A	1	26,000,000	23,803,936
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,431,689	4,205,071	04/09/2013	04/09/2043	Interest Rate Swap			78442G-QA-7	SLM STUDENT LOAN TRUST-SERIES 2005-6 CLASS B	1	4,431,689	4,205,071
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,500,000	7,904,992	04/09/2013	04/09/2043	Interest Rate Swap			29002G-AB-7	Elmwood CLO IV Ltd-ELMW4 2020-1A A	1	8,500,000	7,904,992
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,350,000	14,267,825	04/09/2013	04/09/2043	Interest Rate Swap			14315J-RR-2	Carlyle US CLO 2013-4 Re Term Loan	1	15,350,000	14,267,825
57629*AX9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,456,448	04/09/2013	04/09/2043	Interest Rate Swap			05684A-AG-4	Bain Capital Credit CLO-BCC 2019-4A C	1	3,000,000	2,456,448
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	4,450,000	25,948,417	04/09/2013	04/09/2043	Interest Rate Swap		22,391,487	55820R-AG-7	MADISON PARK FUNDING LTD-SERIES 17-25A CLASS C	2	4,450,000	3,556,930
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,950,000	1,692,364	04/09/2013	04/09/2043	Interest Rate Swap			55954K-AE-5	MAGNETITE CLO LTD-SERIES 2017-19A CLASS C	1	1,950,000	1,692,364
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,850,000	21,302,598	04/09/2013	04/09/2043	Interest Rate Swap			14311C-RR-1	Carlyle US CLO 2017-1 Ri Term Loan	1	22,850,000	21,302,598
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,215,830	04/09/2013	04/09/2043	Interest Rate Swap			033292-AS-2	ANCHORAGE CAPITAL CLO 20-SERIES 13-1A CLASS A2R	1	10,000,000	9,215,830
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,400,000	5,741,376	04/09/2013	04/09/2043	Interest Rate Swap			67112R-AG-9	QHA Credit Funding 3 LTD-OAKC 2019-3A B1	1	6,400,000	5,741,376
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,800,000	4,297,109	04/09/2013	04/09/2043	Interest Rate Swap			09627F-AE-0	BlueMountain CLO Ltd-SERIES 2019-25A CLASS B	1	4,800,000	4,297,109
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,300,000	3,141,709	04/09/2013	04/09/2043	Interest Rate Swap			06761C-AC-3	Babson CLO Ltd 2016-II-BABSN 2016-2A BR	1	3,300,000	3,141,709
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	927,015	04/09/2013	04/09/2043	Interest Rate Swap			89852T-AN-8	Tryon Park CLO Ltd-TPCLO 2013-1A A1JR	1	1,000,000	927,015
57629*AY7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	901,895	04/09/2013	04/09/2043	Interest Rate Swap			13876J-AE-2	Canyon Capital CLO Ltd-CANYC 2012-1RA B	1	1,000,000	901,895
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	10,530,000	32,755,208	04/09/2013	04/09/2043	Interest Rate Swap		22,225,208	500798-MM-8	KREF Lending VII 2018-1 Term Loan	1	10,530,000	10,530,000
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		24,897,231	26,358,750	04/09/2013	04/09/2043	Interest Rate Swap			65023T-AJ-1	Newark BSL CLO 1 Ltd-NBCLO 2016-1A A1R	1	24,897,231	26,358,750
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,900,000	12,175,816	04/09/2013	04/09/2043	Interest Rate Swap			05875H-AC-7	BALLYROCK CLO 2018-1 LTD-SERIES 2018-1A CLASS A2	1	13,900,000	12,175,816
57629*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	916,088	04/09/2013	04/09/2043	Interest Rate Swap			62848F-AC-6	MYERS PARK CLO LTD-MYERS 2018-1A A2	1	1,000,000	916,088

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STATEMENT AS OF MARCH 31, 2020 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*AU5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,500,000	4,905,505	04/09/2013	04/09/2043	Interest Rate Swap			48661N-AE-8	KAYNE CLO-SERIES 19-6A CLASS B1	1	5,500,000	4,905,505
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	60,000,000	21,900,000	44,712,502	04/09/2013	04/09/2043	Interest Rate Swap		24,245,682	56607F-AA-3	Marble Point CLO XI Ltd-1P11 2017-2A A	1	21,900,000	20,466,820
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,341,946	16,895,593	04/09/2013	04/09/2043	Interest Rate Swap			66704J-BD-9	NORTHSTAR EDUCATION FINA-SERIES 04-2 CLASS B	1	19,341,946	16,895,593
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,778,906	15,589,392	04/09/2013	04/09/2043	Interest Rate Swap			66704J-BK-3	NORTHSTAR EDUCATION FINA-SERIES 05-1 CLASS B	1	16,778,906	15,589,392
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,500,000	3,068,622	04/09/2013	04/09/2043	Interest Rate Swap			94950J-AC-5	Wellfleet CLO Ltd-SERIES 18-1A CLASS B	1	3,500,000	3,068,622
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,200,000	2,587,254	04/09/2013	04/09/2043	Interest Rate Swap			22615E-AE-0	Crestline Denali CLO Ltd-SERIES 2018-1A CLASS C	1	3,200,000	2,587,254
57629*BA8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	916,088	04/09/2013	04/09/2043	Interest Rate Swap			62848F-AC-6	MYERS PARK CLO LTD-MYERS 2018-1A A2	1	1,000,000	916,088
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	34,500,000	52,276,769	04/09/2013	04/09/2043	Interest Rate Swap		20,214,435	01750C-AA-1	AllLEGRO CLO VII Ltd-ALLEG 2018-1A A	1	34,500,000	32,062,334
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,530,083	04/09/2013	04/09/2043	Interest Rate Swap			48250W-AG-0	KKR CLO 14 Ltd-KKR 14 AR	1	7,000,000	6,530,083
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,100,000	6,635,490	04/09/2013	04/09/2043	Interest Rate Swap			94184B-D8-9	Waters Corporation Gtd Senior Note Series H	2	7,100,000	6,635,490
57629*BB6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,554,335	04/09/2013	04/09/2043	Interest Rate Swap			14314L-AE-5	Carlyle Global Market St-CGMS 2014-2A A2	1	5,000,000	4,554,335
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	14,000,000	33,219,945	04/09/2013	04/09/2043	Interest Rate Swap		20,214,435	55820C-AE-5	MADISON PARK FUNDING XXI-HDPK 2018-29A A2	1	14,000,000	13,005,510
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,850,000	21,354,879	04/09/2013	04/09/2043	Interest Rate Swap			26251L-AC-8	DRYDEN 64 CLO LTD-DRSLF 2018-64A A	1	22,850,000	21,354,879
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,400,000	3,236,912	04/09/2013	04/09/2043	Interest Rate Swap			06761C-AC-3	Babson CLO Ltd 2016-II-BABS 2016-2A BR	1	3,400,000	3,236,912
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	6,841,388	04/09/2013	04/09/2043	Interest Rate Swap			64132D-AC-2	Neuberger Berman CLO Ltd-NEUB 2019-32A B	1	7,500,000	6,841,388
57629*AZ4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	4,224,934	04/09/2013	04/09/2043	Interest Rate Swap			57542Z-AO-7	MASSMUTUAL ASSET FIN LLC SR SECD REV NT	3	4,000,000	4,224,934
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	6,800,000	41,346,020	03/05/2014	03/05/2034	Interest Rate Swap		35,015,805	92915Q-AE-3	VOYA CLO LTD-SERIES 2017-3A CLASS A1B	1	6,800,000	6,330,215
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,780,000	6,058,425	03/05/2014	03/05/2034	Interest Rate Swap			88434G-AC-9	THL CREDIT WIND RIVER 20-SERIES 2017-3A CLASS B	1	6,780,000	6,058,425
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,920,000	4,266,147	03/05/2014	03/05/2034	Interest Rate Swap			48249V-AS-0	KKR FINANCIAL CLO LTD-SERIES 13-1A CLASS BR	1	4,920,000	4,266,147
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,100,000	20,101,316	03/05/2014	03/05/2034	Interest Rate Swap			55818Y-BA-8	MADISON PARK FUNDING LTD-SERIES 15-17A CLASS AR	1	21,100,000	20,101,316
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,015,000	19,825,005	03/05/2014	03/05/2034	Interest Rate Swap			48249V-AN-1	KKR FINANCIAL CLO LTD-SERIES 13-1A CLASS A1R	1	21,015,000	19,825,005
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,800,000	19,614,213	03/05/2014	03/05/2034	Interest Rate Swap			22616C-AA-1	CRESTLINE DENALI CLO XV -SERIES 17-1A CLASS A	1	20,800,000	19,614,213
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,530,083	03/05/2014	03/05/2034	Interest Rate Swap			48250W-AG-0	KKR CLO 14 Ltd-KKR 14 AR	1	7,000,000	6,530,083
57629*BD2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,200,000	11,713,244	03/05/2014	03/05/2034	Interest Rate Swap			55818P-AS-9	MADISON PARK FUNDING LTD-HDPK 2014-12A CR	1	12,200,000	11,713,244
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	20,512,147	56,906,761	03/05/2014	03/05/2034	Interest Rate Swap		35,042,816	34684S-AC-4	FORT BENNING FAIM-UNSECURED	1	20,512,147	21,863,945
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	12,927,540	03/05/2014	03/05/2034	Interest Rate Swap			05682L-AC-1	Bain Capital Credit CLO -BCC 2019-2A B	1	15,000,000	12,927,540
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,628,415	03/05/2014	03/05/2034	Interest Rate Swap			38137Y-AG-6	Goldentree Loan Managem-GLM 2019-4A B	1	15,000,000	13,628,415
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,200,000	3,451,720	03/05/2014	03/05/2034	Interest Rate Swap			05682L-AE-7	Bain Capital Credit CLO -BCC 2019-2A C	1	4,200,000	3,451,720
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,850,000	10,125,480	03/05/2014	03/05/2034	Interest Rate Swap			883310-AC-8	THAYER PARK CLO LTD.-THAYR 2017-1A A2	1	10,850,000	10,125,480
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,569,427	13,996,200	03/05/2014	03/05/2034	Interest Rate Swap			87250C-AA-5	TICP CLO Ltd	1	14,569,427	13,996,200
57629*BC4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	18,264,380	03/05/2014	03/05/2034	Interest Rate Swap			44932V-AA-0	ICG US CLO Ltd-SERIES 19-1A CLASS A1A	1	20,000,000	18,264,380

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STATEMENT AS OF MARCH 31, 2020 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*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	2,800,000	83,371,388	05/19/2014	05/19/2044	Interest Rate Swap	80,917,485	80,917,485	48661Y-AA-2	Kayne CLO 4 Ltd-SERIES 19-4A CLASS B1	1	2,800,000	2,453,903
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		45,000,000	42,652,800	05/19/2014	05/19/2044	Interest Rate Swap			13876J-AC-6	Canyon Capital CLO Ltd-CANVC 2012-1RA A	1	45,000,000	42,652,800
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,400,000	5,657,280	05/19/2014	05/19/2044	Interest Rate Swap			01749B-AB-5	Alllegro CLO VI Ltd-ALLEG 2017-2A B	1	6,400,000	5,657,280
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,950,000	7,672,969	05/19/2014	05/19/2044	Interest Rate Swap			50184N-AP-7	LOM LTD PARTNERSHIP-SERIES 15A CLASS CR	1	8,950,000	7,672,969
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,000,000	5,088,204	05/19/2014	05/19/2044	Interest Rate Swap			06761K-AG-6	Babson CLO Ltd/Cayman Is-SERIES 19-3A CLASS C	1	6,000,000	5,088,204
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,100,000	11,658,790	05/19/2014	05/19/2044	Interest Rate Swap			75884B-AC-2	Regatta X Funding Ltd-SERIES 2017-3A CLASS B	1	13,100,000	11,658,790
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		44,863,640	41,499,135	05/19/2014	05/19/2044	Interest Rate Swap			42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	44,863,640	41,499,135
57629*BE0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,900,000	21,319,900	05/19/2014	05/19/2044	Interest Rate Swap			14315J-ZZ-5	Carlyle US CLO 2017-2 Ri Term Loan	1	22,900,000	21,319,900
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	19,245,709	59,293,153	05/19/2014	05/19/2034	Interest Rate Swap	40,209,454	40,209,454	67105V-AW-4	OHA CREDIT PARTNERS LTD-OAKC 2013-9A B1R	1	19,245,709	19,083,699
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		52,622,823	49,547,792	05/19/2014	05/19/2034	Interest Rate Swap			77342J-AA-1	Rockford Tower CLO 2018--SERIES 18-1A CLASS A	1	52,622,823	49,547,792
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,209,518	05/19/2014	05/19/2034	Interest Rate Swap			64130P-AE-3	Neuberger Berman CLO Ltd-NEUB 2018-28A B	1	7,000,000	6,209,518
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	19,757,560	05/19/2014	05/19/2034	Interest Rate Swap			13080B-AB-7	SYMPHONY CLO LTD-SERIES 13-12A CLASS B1R	1	20,000,000	19,757,560
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,900,000	18,877,677	05/19/2014	05/19/2034	Interest Rate Swap			38808P-AL-0	Greywolf CLO V Ltd-GWOLF 2015-1A A1R	1	19,900,000	18,877,677
57629*BF7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,000,000	8,062,578	05/19/2014	05/19/2034	Interest Rate Swap			04017Q-AE-5	ARES CLO Ltd-SERIES 18-28RA CLASS B	1	9,000,000	8,062,578
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	28,812,426	107,898,769	05/19/2014	05/19/2044	Interest Rate Swap	81,247,102	81,247,102	42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	28,812,426	26,651,667
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,033,074	16,216,984	05/19/2014	05/19/2044	Interest Rate Swap			83715R-AG-7	SOUTH CAROLINA STUDENT L-SERIES 2014-1 CLASS B	1	17,033,074	16,216,984
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,755,820	05/19/2014	05/19/2044	Interest Rate Swap			17181T-AA-9	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A1	1	4,000,000	3,755,820
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,918,239	5,579,427	05/19/2014	05/19/2044	Interest Rate Swap			38021B-AG-5	GOAL CAPITAL FUNDING TRU-SERIES 2006-1 CLASS B	1	5,918,239	5,579,427
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,174,296	3,615,716	05/19/2014	05/19/2044	Interest Rate Swap			429827-AS-7	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B2	1	4,174,296	3,615,716
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,033,030	05/19/2014	05/19/2044	Interest Rate Swap			69703P-AC-3	Palmer Square CLO 2018-1-PLMRS 2018-1A A2	1	10,000,000	9,033,030
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,050,000	8,348,661	05/19/2014	05/19/2044	Interest Rate Swap			06760E-AE-6	Babson CLO Ltd 2013-I-SERIES 2013-1A CLASS CR	1	9,050,000	8,348,661
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,500,000	7,320,007	05/19/2014	05/19/2044	Interest Rate Swap			63940D-AD-4	Navigent Student Loan Tru-SERIES 18-1A CLASS B	1	9,500,000	7,320,007
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,750,000	7,149,515	05/19/2014	05/19/2044	Interest Rate Swap			64131T-AG-9	Neuberger Berman CLO XVI-SERIES 17-16SA CLASS C	1	7,750,000	7,149,515
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	6,470,363	05/19/2014	05/19/2044	Interest Rate Swap			03330A-AE-2	Anchorage Capital CLO 3-ANCHC 2014-3RA C	1	7,500,000	6,470,363
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,422,072	05/19/2014	05/19/2044	Interest Rate Swap			38137H-BW-7	Goldentree Loan Opportun-SERIES 2015-11A CLASS BR2	1	8,000,000	7,422,072
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,141,752	05/19/2014	05/19/2044	Interest Rate Swap			39808P-AN-6	Greywolf CLO V Ltd-GWOLF 2015-1A A2R	1	8,000,000	7,141,752
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,050,000	6,823,953	05/19/2014	05/19/2044	Interest Rate Swap			06760G-AC-5	Barings CLO Ltd 2018-I-SERIES 18-1A CLASS B	1	8,050,000	6,823,953
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,800,000	4,880,120	05/19/2014	05/19/2044	Interest Rate Swap			01749B-AC-3	Alllegro CLO VI Ltd-ALLEG 2017-2A C	1	5,800,000	4,880,120
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,000,000	14,796,320	05/19/2014	05/19/2044	Interest Rate Swap			06760X-AC-8	BARINGS CLO LTD 2018-IV-SERIES 18-4A CLASS A2	1	16,000,000	14,796,320
57629*BG5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,700,000	3,049,418	05/19/2014	05/19/2044	Interest Rate Swap			05875J-AC-3	Ballyrock CLO 2019-1 Ltd	1	3,700,000	3,049,418
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	12,500,000	91,796,490	05/19/2014	05/19/2044	Interest Rate Swap	81,187,940	81,187,940	55818R-BC-9	Madison Park Funding XIV-HDPK 2014-14A CR	1	12,500,000	10,608,550

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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*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,183,415	1,965,348	05/19/2014	05/19/2044	Interest Rate Swap			784424-AE-3	SLC STUDENT LOAN TRUST 2-SERIES 07-1 CLASS B	1	2,183,415	1,965,348
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,400,000	9,339,512	05/19/2014	05/19/2044	Interest Rate Swap			64132J-AG-0	NEUB 2019-31A B	1	10,400,000	9,339,512
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,530,362	05/19/2014	05/19/2044	Interest Rate Swap			27830X-AG-1	EATON 2019-1A C	1	3,000,000	2,530,362
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,400,000	11,215,205	05/19/2014	05/19/2044	Interest Rate Swap			38138D-AG-1	Goldentree Loan Managem-GLM 2019-5A B	1	12,400,000	11,215,205
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,000,000	14,971,840	05/19/2014	05/19/2044	Interest Rate Swap			69688A-AA-9	Palmer Square CLO 2013-2-SERIES 13-2A CLASS AARR	1	16,000,000	14,971,840
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,750,000	10,825,863	05/19/2014	05/19/2044	Interest Rate Swap			55821A-AC-2	Madison Park Funding Ltd-SERIES 18-28A CLASS A2	1	11,750,000	10,825,863
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	6,995,536	05/19/2014	05/19/2044	Interest Rate Swap			13887W-AC-4	CANYC 2019-2A B	1	8,000,000	6,995,536
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,708,335	1,724,644	05/19/2014	05/19/2044	Interest Rate Swap			23340L-AA-2	DRB PRIME STUDENT LOAN T-SERIES 2015-B CLASS A1	1	1,708,335	1,724,644
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		66,839,811	60,436,557	05/19/2014	05/19/2044	Interest Rate Swap			22101F-AA-6	CORVIAS CAMPUS LIVING - HU, LLC - Sr Secd Note	2	66,839,811	60,436,557
57629*BH3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,500,000	5,386,739	05/19/2014	05/19/2044	Interest Rate Swap			13887W-AE-0	CANYC 2019-2A C	1	6,500,000	5,386,739
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	133,500,000	202,368,050	05/19/2014	05/19/2044	Interest Rate Swap		80,782,257	858102-AX-4	Steele Creek CLO 2016-1 -SERIES 2016-1A CLASS AR	1	133,500,000	121,585,793
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,820,420	05/19/2014	05/19/2044	Interest Rate Swap			04625A-AC-8	ASSURANT CLO I LTD-SERIES 17-1A CLASS B	1	10,000,000	8,820,420
57629*BJ9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,530,083	05/19/2014	05/19/2044	Interest Rate Swap			48250W-AG-0	KKR CLO 14 Ltd-KKR 14 AR	1	7,000,000	6,530,083
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	130,000,000	201,732,437	05/19/2014	05/19/2044	Interest Rate Swap		80,782,257	85816W-AC-8	Steele Creek CLO 2014-1 -SERIES 14-1RA CLASS A	1	130,000,000	120,950,180
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	14,792,160	05/19/2014	05/19/2044	Interest Rate Swap			88322U-AM-1	THACHER PARK CLO-THRPK 2014-1A BR	1	15,000,000	14,792,160
57629*BK6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,200,000	4,683,713	05/19/2014	05/19/2044	Interest Rate Swap			41154X-AG-0	Harbor Park CLO, Ltd-HAR-HARB 2018-1A B1	1	5,200,000	4,683,713
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	5,000,000	85,544,646	05/19/2014	05/19/2044	Interest Rate Swap		80,849,871	17181T-AA-9	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A1	1	5,000,000	4,694,775
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,300,000	24,158,616	05/19/2014	05/19/2044	Interest Rate Swap			04943A-AC-3	ATLAS SENIOR LOAN FUND L-SERIES 2017-8A CLASS B	1	25,300,000	24,158,616
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		52,951,816	52,951,816	05/19/2014	05/19/2044	Interest Rate Swap			500798-MO-4	KREF Lending VII 2018-3 Term Loan	1	52,951,816	52,951,816
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,965,212	12,559,181	05/19/2014	05/19/2044	Interest Rate Swap			G4301U-ZZ-0	Harbour Aircraft Investm Series 2017-1 C	1	13,965,212	12,559,181
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		54,100,000	51,325,914	05/19/2014	05/19/2044	Interest Rate Swap			67104L-AE-7	QHA Loan Funding 2013-2 -QHAF 2013-2A AR	1	54,100,000	51,325,914
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,548,396	05/19/2014	05/19/2044	Interest Rate Swap			94949R-AW-7	Wellfleet CLO 2016-1 Ltd-WELF 2016-1A CR	1	4,000,000	3,548,396
57629*BL4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,200,000	2,841,734	05/19/2014	05/19/2044	Interest Rate Swap			50200Y-AG-3	LCM 30A B	1	3,200,000	2,841,734
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	44,863,640	122,365,910	05/19/2014	05/19/2044	Interest Rate Swap		80,866,775	42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	44,863,640	41,499,135
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,100,000	9,808,859	05/19/2014	05/19/2044	Interest Rate Swap			27830X-AE-6	EATON 2019-1A B	1	11,100,000	9,808,859
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,700,000	2,327,694	05/19/2014	05/19/2044	Interest Rate Swap			01750F-AC-0	Alllegro CLO Ltd-ALLEG 2019-1A B	1	2,700,000	2,327,694
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		35,000,000	32,792,235	05/19/2014	05/19/2044	Interest Rate Swap			48661W-AA-6	KAYNE CLO-SERIES 19-3A CLASS A	1	35,000,000	32,792,235
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,294,396	2,851,284	05/19/2014	05/19/2044	Interest Rate Swap			247358-CC-6	EAIV Delta MSN 15181	1	3,294,396	2,851,284
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,513,515	05/19/2014	05/19/2044	Interest Rate Swap			67707C-AJ-7	Oak Hill Credit Partners-OAKC 2014-10RA B	1	15,000,000	13,513,515
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	14,873,295	05/19/2014	05/19/2044	Interest Rate Swap			817176-AN-0	SENECA PARK CLO LTD-SPARK 2014-1A B1R	1	15,000,000	14,873,295
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,800,000	14,586,291	05/19/2014	05/19/2044	Interest Rate Swap			50512F-AE-2	LA Stadium Finance Co Sr Secured Series C	2	15,800,000	14,586,291

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STATEMENT AS OF MARCH 31, 2020 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*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,915,251	4,115,288	05/19/2014	05/19/2044	Interest Rate Swap			64033L-AD-2	NELNET STUDENT LOAN TRUS-SERIES 2014-2A CLASS B	1	4,915,251	4,115,288
57629*BM2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,400,000	4,749,646	05/19/2014	05/19/2044	Interest Rate Swap			48252U-AC-1	KKR CLO 25 Ltd	1	5,400,000	4,749,646
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	135,000,000	72,500,000	141,004,983	05/19/2014	05/19/2044	Interest Rate Swap		73,251,703	29001L-AA-9	ELMWOOD CLO II LTD NT CL A	1	72,500,000	67,753,280
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,800,000	20,931,005	05/19/2014	05/19/2044	Interest Rate Swap			42086V-AC-4	Hayfin Kingsland X Ltd-SERIES 2019-1A CLASS B1	1	23,800,000	20,931,005
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,600,000	6,646,192	05/19/2014	05/19/2044	Interest Rate Swap			00901A-AC-1	Aimco CDO	1	7,600,000	6,646,192
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,600,000	5,258,148	05/19/2014	05/19/2044	Interest Rate Swap			17181T-AA-9	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A1	1	5,600,000	5,258,148
57629*BNO	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		27,700,000	24,865,875	05/19/2014	05/19/2044	Interest Rate Swap			38176D-AJ-8	Golub Capital Partners C-GOCAP 2015-26A A2R	1	27,700,000	24,865,875
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	85,000,000	18,998,133	45,416,746	05/09/2014	05/09/2034	Interest Rate Swap		28,564,442	77277L-B8-9	ROCKALL CLO BV Variable Funding Note - GBP	1	18,998,133	16,852,304
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,965,525	05/09/2014	05/09/2034	Interest Rate Swap			03765W-BC-1	Apollo Credit Funding IV-SERIES 4A CLASS A1BR	1	15,000,000	13,965,525
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,570,000	12,533,537	05/09/2014	05/09/2034	Interest Rate Swap			04016P-AC-2	ARES CLO LTD-SERIES 17-43A CLASS B	1	13,570,000	12,533,537
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,570,000	11,822,279	05/09/2014	05/09/2034	Interest Rate Swap			22616C-AC-7	CRESTLINE DENALI CLO XV -SERIES 17-1A CLASS B	1	13,570,000	11,822,279
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,570,000	12,644,255	05/09/2014	05/09/2034	Interest Rate Swap			77342K-AA-8	ROCKFORD TOWER CLO 2018-ROCKT 2018-2A A	1	13,570,000	12,644,255
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,900,000	3,214,587	05/09/2014	05/09/2034	Interest Rate Swap			05683L-AG-1	Bain Capital Credit CLO -SERIES 1A CLASS C	1	3,900,000	3,214,587
57629*BP5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,365,233	7,348,594	05/09/2014	05/09/2034	Interest Rate Swap			784170-ZZ-8	SFR FTTH SAS Term Loan	3	8,365,233	7,348,594
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,100,000	79,021,517	07/22/2014	07/22/2044	Interest Rate Swap		67,094,727	67707B-AB-6	OHA Credit Partners XV L-SERIES 17-15A CLASS B	1	13,100,000	11,926,790
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,300,000	11,616,898	07/22/2014	07/22/2044	Interest Rate Swap			75888F-AE-5	Regatta XIII Funding LLC-SERIES 18-2A CLASS A2	1	13,300,000	11,616,898
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,240,344	07/22/2014	07/22/2044	Interest Rate Swap			67115W-AG-5	OHA Credit Funding 1 LTD-SERIES 18-1A CLASS B	1	8,000,000	7,240,344
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,507,890	07/22/2014	07/22/2044	Interest Rate Swap			17180W-AC-9	CIFC Funding 2018-II Ltd-CIFC 2018-2A A2	1	15,000,000	13,507,890
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	12,777,116	07/22/2014	07/22/2044	Interest Rate Swap			03329A-AE-5	Anchorage Capital CLO Lt-SERIES 2014-5RA CLASS B	1	13,500,000	12,777,116
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,700,000	7,076,764	07/22/2014	07/22/2044	Interest Rate Swap			57542Z-AO-7	MASSMUTUAL ASSET FIN LLC SR SECD REV NT	3	6,700,000	7,076,764
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		35,000,000	32,789,435	07/22/2014	07/22/2044	Interest Rate Swap			14315J-AL-3	CARLYLE GLOBAL MARKET ST-SERIES 17-2A CLASS A1B	1	35,000,000	32,789,435
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,900,000	5,001,861	07/22/2014	07/22/2044	Interest Rate Swap			40436X-AG-2	HIGHBRIDGE LOAN MANAGEMEN-SERIES 2014 CLASS BR	1	5,900,000	5,001,861
57629*BR1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,500,000	13,417,285	07/22/2014	07/22/2044	Interest Rate Swap			553205-AC-9	MP CLO III LTD-IMP3 2013-1A AR	1	14,500,000	13,417,285
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	20,000,000	85,905,326	07/22/2014	07/22/2044	Interest Rate Swap		67,108,906	36248M-AJ-6	GT Loan Financing I Ltd -SERIES 2013-1A CLASS AR	1	20,000,000	18,796,420
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,485,525	07/22/2014	07/22/2044	Interest Rate Swap			48251M-AS-5	KKR CLO 15 Ltd-KKR 15 A2R	1	15,000,000	13,485,525
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,590,000	18,579,332	07/22/2014	07/22/2044	Interest Rate Swap			88433R-AC-6	WIND RIVER CLO LTD-SERIES 17-2A CLASS A	1	19,590,000	18,579,332
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,500,000	18,600,075	07/22/2014	07/22/2044	Interest Rate Swap			04016P-AA-6	ARES CLO LTD-ARES 2017-43A A	1	19,500,000	18,600,075
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,500,000	7,619,290	07/22/2014	07/22/2044	Interest Rate Swap			15032T-AW-6	CEDAR FUNDING LTD-SERIES 13-1A CLASS BR	1	8,500,000	7,619,290
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,253,032	07/22/2014	07/22/2044	Interest Rate Swap			12551J-AE-6	CIFC FUNDING LTD-SERIES 17-4A CLASS A2	1	8,000,000	7,253,032
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,100,000	4,501,709	07/22/2014	07/22/2044	Interest Rate Swap			06760B-AJ-1	BARSON CLO LTD-SERIES 17-1A CLASS C	1	5,100,000	4,501,709
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,100,000	4,543,952	07/22/2014	07/22/2044	Interest Rate Swap			566061-AE-7	MARBLE POINT CLO X LTD-SERIES 2017-1A CLASS B	1	5,100,000	4,543,952

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STATEMENT AS OF MARCH 31, 2020 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*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,400,000	2,970,512	04/09/2013	04/09/2043	Interest Rate Swap			55818Y-BG-5	MADISON PARK FUNDING LTD-SERIES 15-17A CLASS CR	1	3,400,000	2,970,512
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,975,000	2,694,398	04/09/2013	04/09/2043	Interest Rate Swap			67102Q-AP-3	OHA CREDIT PARTNERS LTD-SERIES 2012-7A CLASS CR	1	2,975,000	2,694,398
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,600,000	4,827,810	04/09/2013	04/09/2043	Interest Rate Swap			01750F-AC-0	Allegro CLO Ltd-ALLEG 2019-1A B	1	5,600,000	4,827,810
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	20,000,000	04/09/2013	04/09/2043	Interest Rate Swap			500798-MQ-9	KREF Lending VII 2018-5 Term Loan Harbor Park CLO, Ltd-HARB 2018-1A C	1	20,000,000	20,000,000
57629*BT7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,000,000	3,392,744	04/09/2013	04/09/2043	Interest Rate Swap			41154X-AL-9		1	4,000,000	3,392,744
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	17,000,000	83,994,156	07/22/2014	07/22/2044	Interest Rate Swap		67,108,906	04014W-AL-9	ARES CLO LTD-ARES 2014-1A A2R Steele Creek Clo 2018-2 -SERIES	1	17,000,000	16,885,250
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,959,083	14,650,208	07/22/2014	07/22/2044	Interest Rate Swap			85816L-AA-6	2018-2A CLASS A Carlyle US CLO 2013-1 Re Term Loan	1	15,959,083	14,650,208
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,550,000	21,239,845	07/22/2014	07/22/2044	Interest Rate Swap			14315J-SS-9		1	22,550,000	21,239,845
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,000,000	16,849,499	07/22/2014	07/22/2044	Interest Rate Swap			55818P-AN-0	MADISON PARK FUNDING LTD-MDPK 2014-12A B1R	1	17,000,000	16,849,499
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,900,000	8,344,244	07/22/2014	07/22/2044	Interest Rate Swap			57542Z-A0-7	REVENUE NT ALM VII R-2 Ltd-ALM 2013-7R2A A1B2	3	7,900,000	8,344,244
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,400,000	6,071,942	07/22/2014	07/22/2044	Interest Rate Swap			00164B-BE-6		1	6,400,000	6,071,942
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,650,000	5,137,251	07/22/2014	07/22/2044	Interest Rate Swap			50184N-AN-2	LDM LTD PARTNERSHIP-SERIES 15A CLASS BR MOSAIC CO/THE-SENIOR UNSECURED NOTE	1	5,650,000	5,137,251
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,000,000	19,989,714	07/22/2014	07/22/2044	Interest Rate Swap			61945C-AA-1		2	23,000,000	19,989,714
57629*BU4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,037,570	07/22/2014	07/22/2044	Interest Rate Swap			67332F-AG-8	RRPF Engine Leasing Ltd Senior Secured	2	10,000,000	9,037,570
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	7,000,000	73,323,083	07/22/2014	07/22/2044	Interest Rate Swap		67,052,189	05875M-AE-2	Ballyrock CDO Ltd ARES CLO Ltd-SERIES 18-28RA CLASS B	1	7,000,000	6,270,894
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,600,000	6,838,898	07/22/2014	07/22/2044	Interest Rate Swap			040170-AE-5	REGATTA VIII FUNDING LTD-SERIES 2017-1A CLASS B	1	7,600,000	6,838,898
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,460,000	7,159,034	07/22/2014	07/22/2044	Interest Rate Swap			75888K-AC-8		1	7,460,000	7,159,034
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		28,400,000	25,766,156	07/22/2014	07/22/2044	Interest Rate Swap			00900C-AA-2	AIMCO-AMCO 2017-AA A Ares XXXIR CLO Ltd-SERIES 14-31RA CLASS A2	1	28,400,000	25,766,156
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,800,000	10,760,821	07/22/2014	07/22/2044	Interest Rate Swap			04017T-AC-3	DRYDEN SENIOR LOAN FUND-SERIES 17-49A CLASS B	1	11,800,000	10,760,821
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		41,872,730	38,732,526	07/22/2014	07/22/2044	Interest Rate Swap			26244Q-AB-9	Kingsland Ltd-SERIES 18-8A CLASS A	1	41,872,730	38,732,526
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,500,000	11,963,463	07/22/2014	07/22/2044	Interest Rate Swap			42086P-AC-7	BAIN CAPITAL CREDIT CLO -SERIES 2017-2A CLASS AR	1	12,500,000	11,963,463
57629*BV2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,500,000	8,256,422	07/22/2014	07/22/2044	Interest Rate Swap			05683H-AC-9	Wind River CLO Ltd-SERIES 18-3A CLASS B	1	9,500,000	8,256,422
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	3,230,959	69,873,138	07/22/2014	07/22/2044	Interest Rate Swap		67,066,368	247358-XT-6	EAI V Delta MSN 15166 STATE BOARD OF REGENTS C-SERIES	1	3,230,959	2,806,770
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,993,323	6,131,307	07/22/2014	07/22/2044	Interest Rate Swap			91754R-ZG-5	JSBR 2017-1 CLASS B TICOP CLO VI 2016-5 Ltd-TICOP 2016-5A BR	2	6,993,323	6,131,307
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,200,000	13,482,598	07/22/2014	07/22/2044	Interest Rate Swap			87248K-AL-8	MASTR ASSET BACKED SECUR-SERIES 2004-OPT2 CLASS A1	1	15,200,000	13,482,598
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,033,653	3,343,758	07/22/2014	07/22/2044	Interest Rate Swap			57643L-FG-6		1	4,033,653	3,343,758
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,295,000	4,597,654	07/22/2014	07/22/2044	Interest Rate Swap			03766G-AG-7	APIDOS CLO-SERIES 17-26A CLASS B Neuberger Berman Loan Ad-SERIES	1	5,295,000	4,597,654
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,400,000	4,706,986	07/22/2014	07/22/2044	Interest Rate Swap			64130H-AQ-4	2017-24A CLASS CR	1	5,400,000	4,706,986
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,300,000	15,519,295	07/22/2014	07/22/2044	Interest Rate Swap			33882G-AA-6	FLATIRON CLO LTD-FLAT 2017-1A A CEDAR FUNDING LTD-SERIES 14-4A CLASS BR	1	16,300,000	15,519,295
57629*B10	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,280,000	14,528,158	07/22/2014	07/22/2044	Interest Rate Swap			150323-AQ-6		1	16,280,000	14,528,158

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STATEMENT AS OF MARCH 31, 2020 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*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,410,000	8,512,691	07/22/2014	07/22/2044	Interest Rate Swap			04943A-AE-9	ATLAS SENIOR LOAN FUND L-SERIES 17-8A CLASS C	1	9,410,000	8,512,691
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,900,000	10,492,516	07/22/2014	07/22/2044	Interest Rate Swap			44330G-AE-3	Highbridge Loan Managem-SERIES 4A-2014 CLASS A2R	1	11,900,000	10,492,516
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,000,000	7,295,416	07/22/2014	07/22/2044	Interest Rate Swap			87250A-AC-5	TICP CLO XIII Ltd-TICP 2019-13A B	1	8,000,000	7,295,416
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,134,537	4,306,244	07/22/2014	07/22/2044	Interest Rate Swap			69340J-AB-8	PHEAA Student Loan Trust 2014 MYERS PARK CLO LTD-MYERS 2018-1A A2	1	5,134,537	4,306,244
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	916,088	07/22/2014	07/22/2044	Interest Rate Swap			62848F-AC-6	AIMCO CLO Series 2018-B-SERIES 18-8A CLASS C	1	1,000,000	916,088
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,189,290	07/22/2014	07/22/2044	Interest Rate Swap			00900P-AG-0	Voya CLO 2019-4 Ltd-VOYA 2019-4A B FLOATING COUPO	1	5,000,000	4,189,290
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,750,000	10,112,873	07/22/2014	07/22/2044	Interest Rate Swap			92918B-AE-3	CBAM 2018-6 Ltd-CBAM 2018-6A B1R SLM STUDENT LOAN TRUST 2-SERIES 06-7 CLASS B	1	11,750,000	10,112,873
57629*B1W0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,033,869	3,227,362	07/22/2014	07/22/2044	Interest Rate Swap			12481X-AS-9	VOYA CLO 2017-4 LTD-SERIES 17-4A CLASS B	1	3,033,869	3,227,362
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	16,797,910	40,158,176	08/27/2014	08/27/2044	Interest Rate Swap		25,821,858	78443G-AJ-4	Flatiron CLO 18 Ltd-FLAT 2018-1A A	1	16,797,910	14,336,318
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,900,000	6,949,306	08/27/2014	08/27/2044	Interest Rate Swap			92916Q-AC-6	CVP CASCADE CLO LTD-CVPC 2013-CLO1 A1R	1	7,900,000	6,949,306
57629*BZ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		26,578,838	25,312,689	08/27/2014	08/27/2044	Interest Rate Swap			33883G-AA-5	KREF Lending VII 2018-1 Term Loan Babson CLO Ltd/Cayman Is-SERIES 19-3A CLASS B	1	26,578,838	25,312,689
57629*CA7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	25,038,446	50,571,527	08/27/2014	08/27/2044	Interest Rate Swap		25,844,634	126612-AJ-9	Palmer Square CLO 2015-1-PLMRS 2015-1A A2R2	1	25,038,446	24,726,893
57629*CA7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,000,000	25,000,000	08/27/2014	08/27/2044	Interest Rate Swap			500798-MM-8	OP CLO Ltd-SERIES 18-15A CLASS A2	1	25,000,000	25,000,000
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	17,400,000	41,590,148	08/27/2014	08/27/2044	Interest Rate Swap		25,787,694	06761K-AE-1	Babson CLO Ltd 2016-11-BABSN 2016-2A BR	1	17,400,000	15,802,454
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	14,116,860	08/27/2014	08/27/2044	Interest Rate Swap			69689A-AW-0	Ballyrock CDO Ltd Wellfleet CLO 2018-2 Ltd-WELF 2018-2A A1	1	15,000,000	14,116,860
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,250,000	12,885,791	08/27/2014	08/27/2044	Interest Rate Swap			67112K-AB-5	ALM XIV Ltd-SERIES 14-14A CLASS A1R2	1	14,250,000	12,885,791
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,300,000	3,141,709	08/27/2014	08/27/2044	Interest Rate Swap			06761C-AC-3	Barings CLO Ltd 2018-1-SERIES 18-1A CLASS A1	1	3,300,000	3,141,709
57629*CB5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,900,000	5,090,715	08/27/2014	08/27/2044	Interest Rate Swap			05875M-AG-7	Kingsland VI Ltd-KING 2013-6A AR AUST & NZ BANKING GROUP-SUBORDINATED NOTE	1	5,900,000	5,090,715
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	50,000,000	22,432,812	46,735,769	08/27/2014	08/27/2044	Interest Rate Swap		25,747,836	94949J-AA-3	KKR CLO 23 Ltd-KKR 23 B Ares XXXVIII CLO Ltd-SERIES 2015-38A CLASS CR	1	22,432,812	20,987,933
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,900,000	15,047,410	08/27/2014	08/27/2044	Interest Rate Swap			74988L-AA-2	WIND RIVER CLO LTD-SERIES 17-2A CLASS C1	1	15,900,000	15,047,410
57629*CC3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,475,000	15,416,152	08/27/2014	08/27/2044	Interest Rate Swap			06760G-AA-9	AIMCO CLO Series 2015-A-SERIES 15-AA CLASS CR	1	16,475,000	15,416,152
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	100,000,000	170,634,574	09/08/2014	09/08/2044	Interest Rate Swap		77,558,374	42086Q-AA-9	Carlyle Global Market St-SERIES 14-38A CLASS A1B	1	100,000,000	93,076,200
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,465,000	23,641,875	09/08/2014	09/08/2044	Interest Rate Swap			ZZ2066-36-8	KREF 2018-FL1 Ltd-KREF 2018-FL1 C	1	21,465,000	23,641,875
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,400,000	7,347,715	09/08/2014	09/08/2044	Interest Rate Swap			48252Y-AE-9	Madison Park Funding XVI-MDPK 2015-18A BR	1	8,400,000	7,347,715
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,750,000	2,333,922	09/08/2014	09/08/2044	Interest Rate Swap			04015U-AK-4	Barings CLO Ltd 2018-1-SERIES 18-1A CLASS A2	1	2,750,000	2,333,922
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,590,000	2,253,463	09/08/2014	09/08/2044	Interest Rate Swap			88433R-AG-7		1	2,590,000	2,253,463
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,500,000	2,270,695	09/08/2014	09/08/2044	Interest Rate Swap			00900L-AJ-3		1	2,500,000	2,270,695
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,500,000	9,633,309	09/08/2014	09/08/2044	Interest Rate Swap			14315L-AC-8		1	10,500,000	9,633,309
57629*CE9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,770,000	3,243,726	09/08/2014	09/08/2044	Interest Rate Swap			48275P-AG-6		1	4,770,000	3,243,726
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	55,000,000	9,829,650	26,044,837	10/06/2014	10/06/2034	Interest Rate Swap		16,934,887	55819B-AN-0		1	9,829,650	9,109,950
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,100,000	18,025,740	10/06/2014	10/06/2034	Interest Rate Swap			06760G-AB-7		1	20,100,000	18,025,740

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STATEMENT AS OF MARCH 31, 2020 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*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,669,358	21,746,825	10/06/2014	10/06/2034	Interest Rate Swap			77341D-AA-5	Rockford Tower CLO 2017--ROCKT 2017-3A A	1	22,669,358	21,746,825
57629*CG4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,809,970	10/06/2014	10/06/2034	Interest Rate Swap			817176-AS-9	SENECA PARK CLO LTD-SPARK 2014-1A CR	1	5,000,000	4,809,970
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	100,000,000	31,890,745	82,615,641	10/06/2014	10/06/2044	Interest Rate Swap		51,063,611	28108R-AA-0	EdLine Student Loan Fund-ESLFT 2017-A A	1	31,890,745	31,552,030
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,754,098	4,635,246	10/06/2014	10/06/2044	Interest Rate Swap			87289B-AA-2	TCF DLF VIII 2018 CLO, LLC - Class A	1	4,754,098	4,635,246
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,900,000	4,554,393	10/06/2014	10/06/2044	Interest Rate Swap			12481K-AC-2	CBAM 2017-2 LTD-SERIES 17-2A CLASS B1	1	4,900,000	4,554,393
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,950,000	2,808,046	10/06/2014	10/06/2044	Interest Rate Swap			13080B-AD-3	SYMPHONY CLO LTD-SERIES 13-12A CLASS CR	1	2,950,000	2,808,046
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	18,097,320	10/06/2014	10/06/2044	Interest Rate Swap			94950G-AC-1	WELLFLEET CLO LTD-WELF 2017-1A A2	1	20,000,000	18,097,320
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,902,300	10/06/2014	10/06/2044	Interest Rate Swap			55952Y-AR-8	Magnetite VIII Ltd-WAGNE 2014-8A BR2	1	15,000,000	13,902,300
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,400,000	4,051,837	10/06/2014	10/06/2044	Interest Rate Swap			88434H-AE-3	THL Credit Wind River 20-SERIES 18-2A CLASS A2	1	4,400,000	4,051,837
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,600,000	3,049,891	10/06/2014	10/06/2044	Interest Rate Swap			87249C-AE-1	TCF CLO X LTD-SERIES 18-10A CLASS C	1	3,600,000	3,049,891
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,700,000	3,335,110	10/06/2014	10/06/2044	Interest Rate Swap			04009G-AE-7	ARES L CLO Ltd-SERIES 19-53A CLASS B	1	3,700,000	3,335,110
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,382,305	10/06/2014	10/06/2044	Interest Rate Swap			03328W-AL-2	Anchorage Capital CLO 9--SERIES 16-9A CLASS BR	1	5,000,000	4,382,305
57629*CH2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,500,000	10,010,288	10/06/2014	10/06/2044	Interest Rate Swap			64034W-AD-7	Navient Student Loan Tru-NSLT 2019-7A B	1	10,500,000	10,010,288
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2	175,000,000	60,000,000	142,761,806	10/10/2014	10/10/2044	Interest Rate Swap		86,339,306	67332F-AD-5	RRPF Engine Leasing Ltd Senior Secured	2	60,000,000	56,422,500
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		27,793,760	28,589,777	10/10/2014	10/10/2044	Interest Rate Swap			629394-AA-5	NTC CAPITAL I-UNSECURED BOND	2	27,793,760	28,589,777
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		22,002,865	23,720,303	10/10/2014	10/10/2044	Interest Rate Swap			230000-AB-7	CULLEN/FROST CAP TR II-SUBORDINATED NOTE	2	22,002,865	23,720,303
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		20,500,000	20,332,864	10/10/2014	10/10/2044	Interest Rate Swap			09627X-AW-1	BLLEMOUNTAIN CLO LTD-SERIES 2015-1A CLASS A2R	1	20,500,000	20,332,864
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		16,200,000	14,877,416	10/10/2014	10/10/2044	Interest Rate Swap			16409T-AC-3	CHEVANGO PARK CLO LTD-SERIES 18-1A CLASS A1B	1	16,200,000	14,877,416
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		15,000,000	13,921,230	10/10/2014	10/10/2044	Interest Rate Swap			04019L-AC-8	ARES 2019-51A A2	1	15,000,000	13,921,230
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		7,000,000	6,470,583	10/10/2014	10/10/2044	Interest Rate Swap			39862E-AB-0	GRIPPEN PARK CLO LTD-SERIES 17-1A CLASS B	1	7,000,000	6,470,583
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		3,550,000	3,243,926	10/10/2014	10/10/2044	Interest Rate Swap			26251B-AN-6	Dryden XXVIII Senior Loa-DRSLF 2013-28A A2LR	1	3,550,000	3,243,926
57629*CJ8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	2		5,310,352	5,132,930	10/10/2014	10/10/2044	Interest Rate Swap			78442G-RC-2	SLMA 2005-9 STUDENT LN-BKD NT CL B	1	5,310,352	5,132,930
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	80,000,000	135,376,335	11/04/2014	11/04/2044	Interest Rate Swap		61,745,215	87271L-AJ-1	TIAA CLO I Ltd-TIA 2016-1A AR	1	80,000,000	73,631,120
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	18,562,980	11/04/2014	11/04/2044	Interest Rate Swap			55819D-AE-6	Madison Park Funding XXX-HDPK 2018-31A A2A	1	20,000,000	18,562,980
57629*CK5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		35,000,000	32,193,875	11/04/2014	11/04/2044	Interest Rate Swap			22616T-AA-4	Crestline Denali CLO XVI-DEN17 2018-1A A	1	35,000,000	32,193,875
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	110,000,000	151,758,934	11/04/2014	11/04/2044	Interest Rate Swap		61,773,874	06761N-AE-5	Barings Middle Market CL-BMI 2018-11 COM	2	110,000,000	89,985,060
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	11,859,250	11/04/2014	11/04/2044	Interest Rate Swap			21623P-AC-1	COOK PARK CLO LTD-COOK 2018-1A A2	1	13,000,000	11,859,250
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,000,000	887,985	11/04/2014	11/04/2044	Interest Rate Swap			48250R-BN-5	KKR CLO 12 Ltd-KKR 12 BR2	1	1,000,000	887,985
57629*CL3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,416,527	3,571,468	11/04/2014	11/04/2044	Interest Rate Swap			48251B-AN-0	KKR CLO 16 Ltd-KKR 16 A2R	1	3,416,527	3,571,468
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	34,499,673	95,185,945	11/04/2014	11/04/2044	Interest Rate Swap		62,003,145	50188G-AT-0	LGM XVIII LP-LGM 18A A1R	1	34,499,673	33,182,800
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		45,860,609	42,421,338	11/04/2014	11/04/2044	Interest Rate Swap			42086P-AC-7	Kingsland Ltd-SERIES 18-8A CLASS A	1	45,860,609	42,421,338

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STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

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

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		30,000,000	28,764,960	11/04/2014	11/04/2044	Interest Rate Swap			38172X-AG-4	GOLUB CAPITAL PARTNERS C-SERIES 13-16A CLASS A1R	1	30,000,000	28,764,960
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,200,000	1,065,582	11/04/2014	11/04/2044	Interest Rate Swap			48250R-BN-5	KKR CLO 12 Ltd-KKR 12 BR2 ANCHORAGE CAPITAL CLO 1-ANCHC	1	1,200,000	1,065,582
57629*CM1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,195,709	14,655,576	11/04/2014	11/04/2044	Interest Rate Swap			03328Y-AA-2	2018-1RA A1	1	15,195,709	14,655,576
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,795,142	74,134,294	11/04/2014	11/04/2044	Interest Rate Swap		62,031,804	G6776M-ZZ-9	ORANGE GROVE ENERGY, L.P DELAYED DRAW TE	2	13,795,142	12,102,490
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,878,400	2,547,848	11/04/2014	11/04/2044	Interest Rate Swap			247358-BB-9	EAIV Delta MSN 15153	1	2,878,400	2,547,848
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,787,457	2,458,144	11/04/2014	11/04/2044	Interest Rate Swap			247358-DD-3	EAIV Delta MSN 15161	1	2,787,457	2,458,144
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,886,946	2,558,923	11/04/2014	11/04/2044	Interest Rate Swap			247358-PP-3	Delta Air Lines Inc. - MSN 15147	1	2,886,946	2,558,923
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,887,061	2,450,915	11/04/2014	11/04/2044	Interest Rate Swap			247358-RR-7	EAIV 2017 Delta MSN 15146	1	2,887,061	2,450,915
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,787,457	2,458,144	11/04/2014	11/04/2044	Interest Rate Swap			247358-RW-6	EAIV Delta MSN 15162	1	2,787,457	2,458,144
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,500,000	19,025,558	11/04/2014	11/04/2044	Interest Rate Swap			01750F-AA-4	Allegro CLO Ltd-ALLEG 2019-1A A	1	20,500,000	19,025,558
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,210,202	16,381,595	11/04/2014	11/04/2044	Interest Rate Swap			12482N-AA-9	CBAM Ltd-CBAM 2019-10A A1A	1	17,210,202	16,381,595
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,500,000	7,671,794	11/04/2014	11/04/2044	Interest Rate Swap			87166R-AE-7	Symphony CLO XXI Ltd-SYMP 2019-21A B	1	8,500,000	7,671,794
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,895,888	1,894,242	11/04/2014	11/04/2044	Interest Rate Swap			29108Q-AY-8	EMERSON PARK CLO LTD-SERIES 13-1A	1	1,895,888	1,894,242
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,500,000	23,073,750	11/04/2014	11/04/2044	Interest Rate Swap			G1093*-AA-7	BIF II SAFE HARBOR HOLDINGS LLC	2	22,500,000	23,073,750
57629*CN9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		40,000,000	40,000,000	11/04/2014	11/04/2044	Interest Rate Swap			500798-MO-4	KREF Lending VII 2018-3 Term Loan	1	40,000,000	40,000,000
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	10,000,000	70,827,511	11/04/2014	11/04/2044	Interest Rate Swap		62,117,781	48253H-AE-5	KKR CLO 26 LLC-SERIES 26 CLASS B1	1	10,000,000	8,709,730
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		28,500,000	26,984,484	11/04/2014	11/04/2044	Interest Rate Swap			05682V-AA-3	BAIN CAPITAL CREDIT CLO -SERIES 18-2A CLASS A1	1	28,500,000	26,984,484
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		60,000,000	60,000,000	11/04/2014	11/04/2044	Interest Rate Swap			500798-MR-7	KREF Lending VII - Term Loan Series 2019-6	1	60,000,000	60,000,000
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,300,000	9,463,456	11/04/2014	11/04/2044	Interest Rate Swap			38138D-AJ-5	Goldentree Loan Management-GLM 2019-5A C	1	11,300,000	9,463,456
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,950,640	11/04/2014	11/04/2044	Interest Rate Swap			03330N-AC-8	2019-11A B ANCHORAGE CAPITAL CLO 11-ANCHC	1	10,000,000	8,950,640
57629*CP4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,896,580	11/04/2014	11/04/2044	Interest Rate Swap			69700G-AC-6	Palmer Square CLO 2019-1-SERIES 19-1A CLASS A2	1	10,000,000	8,896,580
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	35,465,081	96,887,516	11/04/2014	11/04/2044	Interest Rate Swap		62,289,734	46617N-AQ-0	JFIN CLO LTD-SERIES 14-2A CLASS A1AR	1	35,465,081	34,597,782
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,700,000	3,954,420	11/04/2014	11/04/2044	Interest Rate Swap			03330N-AE-4	ANCHORAGE CAPITAL CLO 11-ANCHC 2019-11A C	1	4,700,000	3,954,420
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,490,000	9,333,687	11/04/2014	11/04/2044	Interest Rate Swap			40437L-AG-7	HPS Loan Management 13-2-HLM 13A-18 B	1	10,490,000	9,333,687
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,248,750	11/04/2014	11/04/2044	Interest Rate Swap			40436Q-AL-6	HPS Loan Management 9-20-HLM 9A-2016 A1BR	1	10,000,000	9,248,750
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,375,000	5,557,636	11/04/2014	11/04/2044	Interest Rate Swap			04622A-AC-1	Assurant CLO IV LTD	1	6,375,000	5,557,636
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,500,000	3,130,218	11/04/2014	11/04/2044	Interest Rate Swap			12482N-AG-6	CBAM 2019-10 Ltd	1	3,500,000	3,130,218
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,445,320	11/04/2014	11/04/2044	Interest Rate Swap			44932V-AE-2	IOG US CLO 2019-1 LTD	1	10,000,000	8,445,320
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,583,290	11/04/2014	11/04/2044	Interest Rate Swap			92918F-AB-0	Voya CLO 2019-3 Ltd	1	10,000,000	8,583,290
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,598,085	11/04/2014	11/04/2044	Interest Rate Swap			67098D-AG-8	OHA Credit Funding 4 Ltd	1	15,000,000	13,598,085
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,000,000	5,087,886	11/04/2014	11/04/2044	Interest Rate Swap			67098D-AJ-2	OHA Credit Funding 4 Ltd	1	6,000,000	5,087,886

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STATEMENT AS OF MARCH 31, 2020 OF THE Massachusetts Mutual Life Insurance Company

SCHEDULE DB - PART C - SECTION 1

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

Replication (Synthetic Asset) Transactions								Components of the Replication (Synthetic Asset) Transactions							
1	2	3	4	5	6	7	8	Derivative Instrument(s) Open			Cash Instrument(s) Held				
Number	Description	NAIC Designation or Other Description	Notional Amount	Book/Adjusted Carrying Value	Fair Value	Effective Date	Maturity Date	9	10	11	12	13	14	15	16
								Description	Book/Adjusted Carrying Value	Fair Value	CUSIP	Description	NAIC Designation or Other Description	Book/Adjusted Carrying Value	Fair Value
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,000,000	25,000,000	11/04/2014	11/04/2044	Interest Rate Swap			500798-MQ-9	KREF Lending VII LLC	1	25,000,000	25,000,000
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	16,600,000	77,315,515	11/04/2014	11/04/2044	Interest Rate Swap		62,261,075	92915P-AK-1	Yoya CLO 2014-1 Ltd-INGIM 2014-1A ABR2	1	16,600,000	15,054,440
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,660,000	13,083,097	11/04/2014	11/04/2044	Interest Rate Swap			05363U-AW-3	EVERY POINT IV CLO LTD-SERIES 14-1A CLASS CR	1	13,660,000	13,083,097
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,660,000	11,824,588	11/04/2014	11/04/2044	Interest Rate Swap			04964K-AS-0	ATRIUM CDO CORP-SERIES 9A CLASS CR	1	13,660,000	11,824,588
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	10,538,580	11/04/2014	11/04/2044	Interest Rate Swap			67332F-AH-6	FRPF Engine Leasing Ltd Senior Secured	2	13,000,000	10,538,580
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,667,220	11/04/2014	11/04/2044	Interest Rate Swap			04941Y-AJ-8	Atlas Senior Loan Fund X-ATCLO 2018-11A B	1	10,000,000	8,667,220
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,000,000	15,798,440	11/04/2014	11/04/2044	Interest Rate Swap			03328W-AJ-7	Anchorage Capital CLO 9 -SERIES 16-9A CLASS AR	1	17,000,000	15,798,440
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,500,000	11,094,975	11/04/2014	11/04/2044	Interest Rate Swap			26252N-AE-9	Bryden Senior Loan Fund-DRSLF 2019-72A B	1	12,500,000	11,094,975
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	19,192,040	11/04/2014	11/04/2044	Interest Rate Swap			12550Y-AC-8	CIFC FUNDING LTD-CIFC 2017-2A A	1	20,000,000	19,192,040
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	6,492,713	11/04/2014	11/04/2044	Interest Rate Swap			94951D-AJ-2	Wellfleet CLO 2018-3 Ltd-SERIES 18-3A CLASS A2	1	7,500,000	6,492,713
57629*CO2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	8,605,760	11/04/2014	11/04/2044	Interest Rate Swap			29002H-AE-9	Elmwood CLO III Ltd-ELMIII 2019-3A B	1	10,000,000	8,605,760
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	12,740,000	74,866,363	11/04/2014	11/04/2044	Interest Rate Swap		62,318,393	55818X-AY-9	MADISON PARK FUNDING LTD-SERIES 2015-16A CLASS A2R	1	12,740,000	12,547,970
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,100,000	6,315,777	11/04/2014	11/04/2044	Interest Rate Swap			03767V-AD-0	Apidos CLO-APID 2019-31A B	1	7,100,000	6,315,777
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,400,000	3,836,637	11/04/2014	11/04/2044	Interest Rate Swap			67576P-AE-7	Octagon Investment Partn-SERIES 19-3A CLASS B1	1	4,400,000	3,836,637
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,240,000	11,282,869	11/04/2014	11/04/2044	Interest Rate Swap			03766G-AE-2	APIDOS CLO-SERIES 17-26A CLASS A2	1	12,240,000	11,282,869
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,980,000	11,144,084	11/04/2014	11/04/2044	Interest Rate Swap			149420-AE-1	CATSKILL PARK CLO LTD -SERIES 17-1A CLASS A2	1	11,980,000	11,144,084
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,604,360	11/04/2014	11/04/2044	Interest Rate Swap			88434H-AE-3	THL Credit Wind River 20-SERIES 18-2A CLASS A2	1	5,000,000	4,604,360
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,100,000	19,906,415	11/04/2014	11/04/2044	Interest Rate Swap			48250L-AL-3	KKR FINANCIAL CLO LTD-SERIES 9 CLASS AR	1	21,100,000	19,906,415
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,100,000	21,236,500	11/04/2014	11/04/2044	Interest Rate Swap			24824T-AQ-3	Denali Capital CLO XII L-DEV12 2016-1A A1R	1	23,100,000	21,236,500
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,250,000	9,536,631	11/04/2014	11/04/2044	Interest Rate Swap			443300-AB-7	Highbridge Loan Managem-SERIES 12A-18 CLASS A1B	1	10,250,000	9,536,631
57629*CS8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	18,382,740	11/04/2014	11/04/2044	Interest Rate Swap			77340E-AN-6	Rockford Tower CLO 2017-SERIES 17-1A CLASS BR	1	20,000,000	18,382,740
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	27,770,650	91,347,762	12/16/2014	12/16/2044	Interest Rate Swap		63,976,472	39808C-A8-4	GRIDIRON FDG LLC Term Facility	1	27,770,650	27,371,290
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		27,312,257	23,828,944	12/16/2014	12/16/2044	Interest Rate Swap			66704J-CB-2	NORTHSTAR EDUCATION FINA-SERIES 07-1 CLASS B	1	27,312,257	23,828,944
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		17,316,535	16,525,362	12/16/2014	12/16/2044	Interest Rate Swap			55955A-AA-4	Magnetite XX Ltd-MAGNE 2018-20A A	1	17,316,535	16,525,362
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	18,994,700	12/16/2014	12/16/2044	Interest Rate Swap			03331J-AA-0	Anchorage Capital CLO Lt-ANCHC 2018-10A A1A	1	20,000,000	18,994,700
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,200,000	14,892,968	12/16/2014	12/16/2044	Interest Rate Swap			06760J-AE-5	Barings CLO Ltd 2018-II-SERIES 2018-2A CLAS A1B	1	16,200,000	14,892,968
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,700,000	6,240,594	12/16/2014	12/16/2044	Interest Rate Swap			06760B-AC-6	BABSON CLO LTD-SERIES 17-1A CLASS A2	1	6,700,000	6,240,594
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,960,000	4,326,955	12/16/2014	12/16/2044	Interest Rate Swap			55820R-AE-2	MADISON PARK FUNDING LTD-SERIES 17-25A CLASS B	1	4,960,000	4,326,955
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,575,000	2,153,951	12/16/2014	12/16/2044	Interest Rate Swap			08179H-AC-4	Benefit Street Partners -BSP 2017-12A B	1	2,575,000	2,153,951
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,282,490	12/16/2014	12/16/2044	Interest Rate Swap			79410U-AQ-4	SALEM FIELDS CLO LTD SR SEC NT CL A-2-R	1	10,000,000	9,282,490
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,475,000	4,052,121	12/16/2014	12/16/2044	Interest Rate Swap			033291-AC-9	ANCHC 2019-13A B	1	4,475,000	4,052,121

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STATEMENT AS OF MARCH 31, 2020 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*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,425,000	5,701,667	12/16/2014	12/16/2044	Interest Rate Swap			08180X-AQ-5	Benefit Street Partners -BSP 2015-8A A1BR	1	6,425,000	5,701,667
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,000,000	5,204,454	12/16/2014	12/16/2044	Interest Rate Swap			08182B-AE-8	Benefit Street Partners CLO L BAIN CAPITAL CREDIT CLO -SERIES 2017-2A CLASS CR	1	6,000,000	5,204,454
57629*CX7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,350,000	2,016,544	12/16/2014	12/16/2044	Interest Rate Swap			05683H-AG-0	Benefit Street Partners CLO L BAIN CAPITAL CREDIT CLO -SERIES 2017-2A CLASS CR	1	2,350,000	2,016,544
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	150,000,000	25,000,000	88,631,081	12/16/2014	12/16/2044	Interest Rate Swap		63,631,081	500798-MQ-4	KREF Lending VII 2018-3 Term Loan	1	25,000,000	25,000,000
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,470,000	13,202,008	12/16/2014	12/16/2044	Interest Rate Swap			55820R-AC-6	MADISON PARK FUNDING LTD-SERIES 17-25A CLASS A2	1	14,470,000	13,202,008
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		34,880,012	32,977,770	12/16/2014	12/16/2044	Interest Rate Swap			04941Y-AC-3	Atlas Senior Loan Fund X-SERIES 18-11A CLASS A1L	1	34,880,012	32,977,770
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		65,000,000	59,384,520	12/16/2014	12/16/2044	Interest Rate Swap			04624H-AC-1	ASSURANT CLO III LTD-SERIES 2018-2A CLASS A	1	65,000,000	59,384,520
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,429,507	8,302,459	12/16/2014	12/16/2044	Interest Rate Swap			48252W-AC-7	KKR CLO LTD 22-SERIES 22A CLASS B	1	9,429,507	8,302,459
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,738,249	12/16/2014	12/16/2044	Interest Rate Swap			05618D-AN-4	BABSON CLO LTD-BABSN 2014-1A BR Babson CLO Ltd 2015-1-BABSN 2015-1A BR	1	7,000,000	6,738,249
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,045,000	1,848,545	12/16/2014	12/16/2044	Interest Rate Swap			056162-AQ-3	Palmer Square CLO 2018-1-PLMRS 2018-1A B	1	2,045,000	1,848,545
57629*CT6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,900,000	3,338,790	12/16/2014	12/16/2044	Interest Rate Swap			69703P-AE-9	Palmer Square CLO 2018-1-PLMRS 2018-1A B	1	3,900,000	3,338,790
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	250,000,000	36,000,000	144,024,148	12/16/2014	12/16/2044	Interest Rate Swap		106,800,148	39808C-AA-3	Gridiron Fdg LLC Sr Secd Nt Carlyle Global Market St-SERIES C17A CLASS A1BR	2	36,000,000	37,224,000
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,900,000	23,955,169	12/16/2014	12/16/2044	Interest Rate Swap			14307P-AE-5	Gridiron Fdg LLC Sr Secd Nt Carlyle Global Market St-SERIES C17A CLASS A1BR	1	25,900,000	23,955,169
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,500,000	23,360,269	12/16/2014	12/16/2044	Interest Rate Swap			05618D-AL-8	BABSON CLO LTD-BABSN 2014-1A A2R SOUND POINT CLO LTD-SERIES 2017-2A CLASS A	1	23,500,000	23,360,269
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,100,000	21,433,358	12/16/2014	12/16/2044	Interest Rate Swap			83610K-AA-1	MASSMUTUAL ASSET FIN LLC SR SEC0 REV NT	1	23,100,000	21,433,358
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,800,000	24,082,121	12/16/2014	12/16/2044	Interest Rate Swap			57542Z-AQ-7	MASSMUTUAL ASSET FIN LLC SR SEC0 REV NT	3	22,800,000	24,082,121
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		27,000,000	27,000,000	12/16/2014	12/16/2044	Interest Rate Swap			500798-MQ-9	KREF Lending VII 2018-5 Term Loan	1	27,000,000	27,000,000
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,781,953	13,134,128	12/16/2014	12/16/2044	Interest Rate Swap			92917A-AA-4	VOYA 2018-1A A1 MERCER FIELD CLO LP-MERCL 2017-1A A2	1	13,781,953	13,134,128
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		20,000,000	18,473,640	12/16/2014	12/16/2044	Interest Rate Swap			58806P-AC-2	MERCER FIELD CLO LP-MERCL 2017-1A A2	1	20,000,000	18,473,640
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,500,000	10,791,909	12/16/2014	12/16/2044	Interest Rate Swap			64034B-AB-7	Wellfleet CLO 2018-2 Ltd-WELF 2018-2A A1	1	11,500,000	10,791,909
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,432,812	20,987,933	12/16/2014	12/16/2044	Interest Rate Swap			94949J-AA-3	Wellfleet CLO 2018-2 Ltd-WELF 2018-2A A1	1	22,432,812	20,987,933
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,950,000	5,673,700	12/16/2014	12/16/2044	Interest Rate Swap			10302V-BG-9	BOWMAN PARK CLO LTD-BOWPK 2014-1A CR	1	5,950,000	5,673,700
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,488,143	8,089,382	12/16/2014	12/16/2044	Interest Rate Swap			03328Q-AN-1	ANCHORAGE CAPITAL CLO LT-SERIES 2015-6A CLASS AR	1	8,488,143	8,089,382
57629*CIW9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,100,000	9,954,513	12/16/2014	12/16/2044	Interest Rate Swap			12481Q-AE-5	Obam 2018-5 Ltd-SERIES 18-5A CLASS B1	1	11,100,000	9,954,513
57629*CUJ3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	250,000,000	328,073,426	452,228,516	12/16/2014	12/16/2044	Interest Rate Swap		105,706,411	57542Z-AQ-7	MASSMUTUAL ASSET FIN LLC SR SEC0 REV NT	3	328,073,426	346,522,105
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	200,000,000	16,876,425	100,188,203	12/16/2014	12/16/2044	Interest Rate Swap		84,104,608	03328Q-AN-1	ANCHORAGE CAPITAL CLO LT-SERIES 2015-6A CLASS AR	1	16,876,425	16,083,595
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,383,745	12/16/2014	12/16/2044	Interest Rate Swap			94950J-AC-5	Wellfleet CLO Ltd-SERIES 18-1A CLASS B	1	5,000,000	4,383,745
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,780,000	6,162,464	12/16/2014	12/16/2044	Interest Rate Swap			33882G-AB-4	FLATIRON CLO LTD-FLAT 2017-1A B GALLATIN CLO LTD-SERIES 17-1A CLASS B	1	6,780,000	6,162,464
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,750,000	9,099,334	12/16/2014	12/16/2044	Interest Rate Swap			36361U-AC-4	GALLATIN CLO LTD-SERIES 17-1A CLASS B	1	9,750,000	9,099,334
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,400,000	9,729,512	12/16/2014	12/16/2044	Interest Rate Swap			67115W-AE-0	OHA Credit Funding 1 LTD-SERIES 18-1A CLASS A2	1	10,400,000	9,729,512
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,671,530	20,601,438	12/16/2014	12/16/2044	Interest Rate Swap			26245R-AA-8	Dryden 58 CLO Ltd-DRSLF 2018-58A A1	1	21,671,530	20,601,438

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STATEMENT AS OF MARCH 31, 2020 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*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,675,000	9,100,499	12/16/2014	12/16/2044	Interest Rate Swap			08179H-AA-8	BENEFIT STREET PARTNERS -SERIES 2017-12A CLASS A1	1	9,675,000	9,100,499
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,500,000	7,972,669	12/16/2014	12/16/2044	Interest Rate Swap			781090-AE-8	RR 2 LTD-SERIES 17-2A CLASS A2	1	8,500,000	7,972,669
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		30,000,000	28,107,630	12/16/2014	12/16/2044	Interest Rate Swap			48661W-AA-6	KAYNE CLO-SERIES 19-3A CLASS A Carlyle US CLO 2013-3 Re Term Loan	1	30,000,000	28,107,630
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,075,000	17,856,108	12/16/2014	12/16/2044	Interest Rate Swap			14315J-NN-5	MASSMUTUAL ASSET FIN LLC SR SECD REV NT	1	19,075,000	17,856,108
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		56,000,000	59,149,069	12/16/2014	12/16/2044	Interest Rate Swap			57542Z-AO-7	AIMCO CLO Series 2015-A-SERIES 15-AA CLASS BR	3	56,000,000	59,149,069
57629*CV1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,400,000	6,038,336	12/16/2014	12/16/2044	Interest Rate Swap			00900L-AH-7	CIFC Funding 2017-IV Ltd-SERIES 17-4A CLASS B	1	6,400,000	6,038,336
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	4,956,247	44,597,099	02/05/2015	02/05/2045	Interest Rate Swap		40,285,469	12551J-AG-1	MANUF & TRADERS TRUST CO-SUBORDINATED NOTE	1	4,956,247	4,311,630
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,509,079	10,190,376	02/05/2015	02/05/2045	Interest Rate Swap			564759-QB-7	TC1-CENT CLO 2016-1 LTD-SERIES 17-1A CLASS A2	1	10,509,079	10,190,376
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	12,438,185	02/05/2015	02/05/2045	Interest Rate Swap			87806L-AE-6	BABSON CLO LTD-SERIES 17-1A CLASS B1	1	13,500,000	12,438,185
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,500,000	12,304,548	02/05/2015	02/05/2045	Interest Rate Swap			06760B-AE-2	NAVSL 2019-2A B	1	13,500,000	12,304,548
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,600,000	7,412,900	02/05/2015	02/05/2045	Interest Rate Swap			63941R-AC-4	HIGHBRIDGE LOAN MANAGEME-SERIES 2014 CLASS A2R	1	9,600,000	7,412,900
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,700,000	11,351,641	02/05/2015	02/05/2045	Interest Rate Swap			40436X-AE-7	BAIN CAPITAL CREDIT CLO -SERIES 17-1A CLASS A1	1	12,700,000	11,351,641
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,200,000	10,707,256	02/05/2015	02/05/2045	Interest Rate Swap			05682Q-AC-0	BlueMountain CLO 2015-3 -BLUEM 2015-3A A2R	1	11,200,000	10,707,256
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,900,000	12,335,805	02/05/2015	02/05/2045	Interest Rate Swap			09628J-AN-1	EVERY POINT CLO LTD-SERIES 13-3A CLASS B1R	1	13,900,000	12,335,805
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,300,000	11,189,170	02/05/2015	02/05/2045	Interest Rate Swap			053633-AH-6	SFR FTTH SAS Term Loan	3	11,300,000	11,189,170
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,349,333	4,699,221	02/05/2015	02/05/2045	Interest Rate Swap			784170-ZZ-8	Madison Park Funding Ltd-SERIES 18-30A CLASS B	1	5,349,333	4,699,221
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,400,000	6,871,973	02/05/2015	02/05/2045	Interest Rate Swap			55821T-AC-1	Tryon Park CLO Ltd-TPCLO 2013-1A	1	7,400,000	6,871,973
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,085,000	1,005,811	02/05/2015	02/05/2045	Interest Rate Swap			89852T-AN-8	QHA Credit Partners XIV -OAKC 2017-14A B FLOATING COUP	1	1,085,000	1,005,811
57629*CV5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,518,677	11,473,942	02/05/2015	02/05/2045	Interest Rate Swap			67706X-AG-8	AIMCO-AIMCO 2017-AA C	1	12,518,677	11,473,942
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	5,280,000	44,726,146	02/05/2015	02/05/2045	Interest Rate Swap		40,052,675	00900C-AE-4	TOP DLF VIII 2018 CLO, LLC - Class	1	5,280,000	4,673,471
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,180,328	3,100,820	02/05/2015	02/05/2045	Interest Rate Swap			87289B-AA-2	EVERY POINT IV CLO LTD-SERIES 14-1A CLASS BR	1	3,180,328	3,100,820
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		32,100,000	31,902,392	02/05/2015	02/05/2045	Interest Rate Swap			05363U-AU-7	NORTHSTAR EDUCATION FINA-SERIES 2004-1 CLASS B1	1	32,100,000	31,902,392
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,073,612	23,030,742	02/05/2015	02/05/2045	Interest Rate Swap			66704J-AY-4	Regatta Funding Ltd. -REG11 2018-1A	1	25,073,612	23,030,742
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		27,000,000	25,354,566	02/05/2015	02/05/2045	Interest Rate Swap			75887X-AA-5	10G US CLO 2018-1 LTD-SERIES 2018-1A CLASS A1	1	27,000,000	25,354,566
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,900,000	10,902,078	02/05/2015	02/05/2045	Interest Rate Swap			449258-AA-0	Neuberger Berman CLO Ltd-NEUB 2018-30A A2	1	11,900,000	10,902,078
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,220,240	02/05/2015	02/05/2045	Interest Rate Swap			64132M-AC-2	CIFC Funding 2018-IV Ltd-SERIES 18-4A CLASS A2	1	10,000,000	9,220,240
57629*C22	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,200,000	10,067,187	02/05/2015	02/05/2045	Interest Rate Swap			17181T-AC-5	SFR FTTH SAS Term Loan	3	11,200,000	10,067,187
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	4,496,250	44,207,715	02/05/2015	02/05/2045	Interest Rate Swap		40,257,901	784170-ZZ-8	Madison Park Funding XIV-MDPK 2014-14A BR	1	4,496,250	3,949,814
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		15,000,000	13,366,170	02/05/2015	02/05/2045	Interest Rate Swap			55818R-BA-3	Atlas Senior Loan Fund X-ATCLO 2018-10A B	1	15,000,000	13,366,170
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,600,000	10,149,269	02/05/2015	02/05/2045	Interest Rate Swap			04942J-AE-1	CIFC Funding 2018-I Ltd-CIFC 2018-1A A	1	11,600,000	10,149,269
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,156,543	21,987,496	02/05/2015	02/05/2045	Interest Rate Swap			12551R-AA-6		1	23,156,543	21,987,496

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STATEMENT AS OF MARCH 31, 2020 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		25,900,000	23,803,473	02/05/2015	02/05/2045	Interest Rate Swap			04016V-AC-9	ARES XLVII CLO Ltd-SERIES 18-47A CLASS A2	1	25,900,000	23,803,473
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,400,000	9,978,682	02/05/2015	02/05/2045	Interest Rate Swap			670970-AE-5	OPC CLO 2017-14 Ltd-SERIES 17-14A CLASS A2	1	11,400,000	9,978,682
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,400,000	12,119,416	02/05/2015	02/05/2045	Interest Rate Swap			08179L-AC-5	Benefit Street Partners -SERIES 18-14A CLASS A2	1	13,400,000	12,119,416
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,383,745	02/05/2015	02/05/2045	Interest Rate Swap			94950J-AC-5	Wellfleet CLO Ltd-SERIES 18-1A CLASS B	1	5,000,000	4,383,745
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,000,000	6,282,990	02/05/2015	02/05/2045	Interest Rate Swap			14315R-AE-1	Carlyle Global Market St-SERIES 18-4A CLASS A2	1	7,000,000	6,282,990
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,100,000	2,665,625	02/05/2015	02/05/2045	Interest Rate Swap			04943A-AG-4	ATLAS SENIOR LOAN FUND L-SERIES 17-8A CLASS C	1	3,100,000	2,665,625
57629*DA6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,500,000	6,489,698	02/05/2015	02/05/2045	Interest Rate Swap			33883J-AC-5	Flatiron CLO Ltd-SERIES 19-1A CLASS B	1	7,500,000	6,489,698
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	45,000,000	82,948,926	02/05/2015	02/05/2045	Interest Rate Swap		39,880,461	05683H-AC-9	BAIN CAPITAL CREDIT CLO -SERIES 2017-2A CLASS AR	1	45,000,000	43,068,465
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,325,000	6,813,503	02/05/2015	02/05/2045	Interest Rate Swap			55854K-AC-9	MAGNETITE CLO LTD-SERIES 17-19A CLASS B	1	7,325,000	6,813,503
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,200,000	6,409,152	02/05/2015	02/05/2045	Interest Rate Swap			92915Q-AG-8	VOYA CLO LTD-SERIES 2017-3A CLASS A2	1	7,200,000	6,409,152
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,750,000	11,265,224	02/05/2015	02/05/2045	Interest Rate Swap			40436Q-AN-2	HPS Loan Management 9-20-HLM 9A-2016 A2R	1	12,750,000	11,265,224
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		25,000,000	23,519,225	02/05/2015	02/05/2045	Interest Rate Swap			87249Q-AA-8	TICP CLO Ltd-TICP 2018-11A A Babson CLO Ltd 2013-I-SERIES 2013-1A CLASS AR	1	25,000,000	23,519,225
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,398,871	13,473,585	02/05/2015	02/05/2045	Interest Rate Swap			06760E-AA-4	Statoil ASA-SENIOR UNSECURED NOTE SMB PRIVATE ED LN TR 201-SMB PRIVATE ED LN TR 2016-A NT	1	14,398,871	13,473,585
57629*DB4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,123,962	24,855,537	02/05/2015	02/05/2045	Interest Rate Swap			24820R-AA-6	NAVIENT STUDENT LOAN TRU-SERIES 16-2 CLASS A3	1	21,123,962	24,855,537
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	15,860,528	68,118,839	12/05/2016	12/05/2046	Interest Rate Swap		52,938,500	78449F-AC-5	ECMC GROUP STUDENT LOAN -SERIES 2016-1A CLASS A	1	15,860,528	15,180,339
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		22,420,000	21,670,300	12/05/2016	12/05/2046	Interest Rate Swap			63940F-AC-1	Atlas Senior Loan Fund V-SERIES 16-7A CLASS A1R	1	22,420,000	21,670,300
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,718,957	9,425,175	12/05/2016	12/05/2046	Interest Rate Swap			28827X-AA-1	VOYA CLO LTD-VOYA 2017-1A A2	1	9,718,957	9,425,175
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		23,500,000	22,102,079	12/05/2016	12/05/2046	Interest Rate Swap			04941T-AS-9	Oak Hill Credit Partners-SERIES 15-12A CLASS A2R	1	23,500,000	22,102,079
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,500,000	10,279,310	12/05/2016	12/05/2046	Interest Rate Swap			92916M-AB-7	Benefit Street Partners -BSP 2015-8A BR	1	11,500,000	10,279,310
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,281,520	12/05/2016	12/05/2046	Interest Rate Swap			67109Y-AN-4	CRESTLINE DENALI CLO XV -SERIES 17-1A CLASS C	1	10,000,000	9,281,520
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,200,000	3,480,179	12/05/2016	12/05/2046	Interest Rate Swap			08180X-AU-6	ATRIUM XIV LLC-ATRM 14A A2A Anchorage Capital CLO 9 -SERIES 16-9A CLASS BR	1	4,200,000	3,480,179
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,380,000	5,293,748	12/05/2016	12/05/2046	Interest Rate Swap			22616C-AE-3	Benefit Street Partners CLO X Parliament Funding I LLC-Variable Funding Notes	1	6,380,000	5,293,748
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,306,290	12/05/2016	12/05/2046	Interest Rate Swap			04965L-AE-8	NSLT 2019-2A B	1	10,000,000	9,306,290
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,382,305	12/05/2016	12/05/2046	Interest Rate Swap			03328W-AL-2	KREF Lending VII 2018-2 Term Loan SMB PRIVATE EDUCATION LO-SMB 2015-B A3	1	5,000,000	4,382,305
57629*DK4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,400,000	8,091,069	12/05/2016	12/05/2046	Interest Rate Swap			08186P-AC-7	BRAZOS HIGHER EDUCATION -SER 2006-2 STUDENT LN REV NT	1	9,400,000	8,091,069
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,875,000	66,844,353	12/05/2016	12/05/2046	Interest Rate Swap		52,969,353	70163H-AA-0	ACCESS GROUP INC-SERIES 2003-A CLASS A3	1	13,875,000	13,875,000
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,600,000	3,529,514	12/05/2016	12/05/2046	Interest Rate Swap			64034N-AB-1		2	5,600,000	3,529,514
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		30,000,000	30,000,000	12/05/2016	12/05/2046	Interest Rate Swap			500798-MN-6		1	30,000,000	30,000,000
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,884,992	11,543,570	12/05/2016	12/05/2046	Interest Rate Swap			78448Q-AD-0		1	11,884,992	11,543,570
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,934,586	8,790,957	12/05/2016	12/05/2046	Interest Rate Swap			10620N-AX-6		1	8,934,586	8,790,957
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		305,531	305,080	12/05/2016	12/05/2046	Interest Rate Swap			00432C-AV-3		1	305,531	305,080

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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*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,777,590	12/05/2016	12/05/2046	Interest Rate Swap			88322U-AN-9	THACHER PARK CLO-THRPK 2014-1A CR	1	5,000,000	4,777,590
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,000,000	11,406,382	12/05/2016	12/05/2046	Interest Rate Swap			75887X-AC-1	Regatta Funding Ltd.-REG11 2018-1A	1	13,000,000	11,406,382
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,626,289	4,626,289	12/05/2016	12/05/2046	Interest Rate Swap			77277L-A7-2	ROCKALL CLO BV Variable Funding Note- USD	1	4,626,289	4,626,289
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,350,000	6,637,168	12/05/2016	12/05/2046	Interest Rate Swap			12551R-AC-2	CIFC Funding 2018-1 Ltd-SERIES 18-1A CLASS B	1	7,350,000	6,637,168
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,604,360	12/05/2016	12/05/2046	Interest Rate Swap			88434H-AE-3	THL Credit Wind River 20-SERIES 18-2A CLASS A2	1	5,000,000	4,604,360
57629*DJ7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		21,333,333	18,638,933	12/05/2016	12/05/2046	Interest Rate Swap			87289B-AJ-3	TCF DLF VIII 2018 CLO Combo Note	2	21,333,333	18,638,933
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	16,090,542	67,076,770	12/05/2016	12/05/2046	Interest Rate Swap		52,565,181	MXP001-TT-1	AEROVIAS DE MEXICO SA USD TERM LN	1	16,090,542	14,511,589
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		65,300,000	60,609,011	12/05/2016	12/05/2046	Interest Rate Swap			63940L-AC-8	NAVIENT STUDENT LOAN TRU-SERIES 2016-6A CLASS A3	1	65,300,000	60,609,011
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		24,000,000	22,359,168	12/05/2016	12/05/2046	Interest Rate Swap			38137Y-AE-1	Goldentree Loan Managem-GLM 2019-4A AJ	1	24,000,000	22,359,168
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,000,000	9,306,290	12/05/2016	12/05/2046	Interest Rate Swap			04965L-AE-8	ATRIUM XIV LLC-ATRM 14A A2A	1	10,000,000	9,306,290
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		105,695	106,110	12/05/2016	12/05/2046	Interest Rate Swap			78442G-EW-2	SLM STUDENT LOAN TRUST-SERIES 2002-7 CLASS A10	1	105,695	106,110
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,820,094	1,735,180	12/05/2016	12/05/2046	Interest Rate Swap			429827-AK-4	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A10	1	1,820,094	1,735,180
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,200,055	1,106,177	12/05/2016	12/05/2046	Interest Rate Swap			429827-AP-3	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A14	1	1,200,055	1,106,177
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,125,036	1,122,834	12/05/2016	12/05/2046	Interest Rate Swap			429827-AB-4	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS A2	1	1,125,036	1,122,834
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,863,674	1,815,140	12/05/2016	12/05/2046	Interest Rate Swap			83715A-AJ-8	SOUTH CAROLINA STUDENT L-SR UNSECURED	1	1,863,674	1,815,140
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,719,652	1,327,926	12/05/2016	12/05/2046	Interest Rate Swap			640330-AC-3	MELNET STUDENT LOAN TRUS-SERIES 2015-2A CLASS B	1	1,719,652	1,327,926
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		995,198	947,438	12/05/2016	12/05/2046	Interest Rate Swap			709163-GJ-2	PENNSYLVANIA ST HGR EDU -SERIES 2006 CL B	1	995,198	947,438
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		971,553	956,869	12/05/2016	12/05/2046	Interest Rate Swap			17284L-AB-0	CIT EDUCATION LOAN TRUST-SERIES 2007-1 CLASS B	1	971,553	956,869
57629*DH1	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,275,000	7,092,792	12/05/2016	12/05/2046	Interest Rate Swap			056162-AS-9	Babson CLO Ltd 2015-1-BABSN 2015-1A CR	1	8,275,000	7,092,792
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	13,651,423	64,880,085	12/05/2016	12/05/2046	Interest Rate Swap		52,568,266	MXP001-TT-1	AEROVIAS DE MEXICO SA USD TERM LN	1	13,651,423	12,311,819
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,280,480	6,211,875	12/05/2016	12/05/2046	Interest Rate Swap			78448R-AD-8	SMB PRIVATE ED LN TR 2015-C LN BCK	1	6,280,480	6,211,875
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,521,494	5,455,902	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	5,521,494	5,455,902
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		31,052,260	31,052,260	12/05/2016	12/05/2046	Interest Rate Swap			500798-MN-6	KREF Lending VII 2018-2 Term Loan	1	31,052,260	31,052,260
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		583,473	584,260	12/05/2016	12/05/2046	Interest Rate Swap			78446D-AC-3	SLM STUDENT LOAN TRUST-SERIES 2011-A CLASS A3	1	583,473	584,260
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,600,000	10,903,988	12/05/2016	12/05/2046	Interest Rate Swap			08179C-AQ-4	Benefit Street Partners -BSP 2017-11A A2R FLOATING	1	11,600,000	10,903,988
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,396,242	6,154,561	12/05/2016	12/05/2046	Interest Rate Swap			00432C-CW-9	ACCESS GROUP INC-SERIES 2005-B CLASS A3	1	6,396,242	6,154,561
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,012,403	10,878,054	12/05/2016	12/05/2046	Interest Rate Swap			28148W-AC-7	EDUCATIONAL FUNDING OF T-SERIES 2011-1 CLASS B	1	10,012,403	10,878,054
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		665,402	640,653	12/05/2016	12/05/2046	Interest Rate Swap			462592-AD-8	IOWA STUDENT LOAN LIQUID-SERIES 2005-1 CLASS B	1	665,402	640,653
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,194,616	8,724,443	12/05/2016	12/05/2046	Interest Rate Swap			78442G-OA-7	SLM STUDENT LOAN TRUST-SERIES 2005-6 CLASS B	1	9,194,616	8,724,443
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,669,474	1,639,360	12/05/2016	12/05/2046	Interest Rate Swap			38021F-AB-7	GOAL CAPITAL FUNDING TRU-SERIES 2015-1 CLASS B	2	1,669,474	1,639,360
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,690,645	1,711,318	12/05/2016	12/05/2046	Interest Rate Swap			28138J-AB-0	EDUCATIONAL SERVICES OF -SERIES 15-2 CLASS B	1	1,690,645	1,711,318

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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*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,100,271	1,787,785	12/05/2016	12/05/2046	Interest Rate Swap			78442G-GM-2	SLM STUDENT LOAN TRUST 2003-4 LN BKD CTF CL B	2	2,100,271	1,787,785
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,359,685	1,251,284	12/05/2016	12/05/2046	Interest Rate Swap			28090A-AB-5	EDUCATIONAL SERVICES OF -2014-4 SERIES B	1	1,359,685	1,251,284
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,200,000	6,638,630	12/05/2016	12/05/2046	Interest Rate Swap			03767M-AE-8	Apidos CLO-SERIES 18-29A CLASS A1B	1	7,200,000	6,638,630
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,800,000	7,910,276	12/05/2016	12/05/2046	Interest Rate Swap			39729R-AC-2	Greenwood Park CLO Ltd-SERIES 18-1A CLASS B	1	8,800,000	7,910,276
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,509,475	12/05/2016	12/05/2046	Interest Rate Swap			13876J-AE-2	Canyon Capital CLO Ltd-CANVC 2012-1RA B	1	5,000,000	4,509,475
57629*DG3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,452,880	12/05/2016	12/05/2046	Interest Rate Swap			03768R-AG-1	Apidos CLO Series 19-32A-APID 2019-32A B1	1	5,000,000	4,452,880
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	7,538,753	57,578,400	12/06/2016	12/06/2046	Interest Rate Swap		51,108,023	281397-AP-4	EDUCATION LOAN ASSET-BAC-SERIES 2003-2 CLASS 2A1	1	7,538,753	6,470,377
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,913,969	10,744,860	12/05/2016	12/05/2046	Interest Rate Swap			MXP001-TT-1	AEROVIAS DE MEXICO SA USD TERM LN NORTHSTAR EDUCATION FINA-NEF 2016-1	1	11,913,969	10,744,860
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,509,223	2,473,231	12/06/2016	12/06/2046	Interest Rate Swap			66705R-AA-7	A EDUCATION LOAN ASSET-BAC-SERIES 2003-1 CLASS A2	1	2,509,223	2,473,231
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,650,074	6,134,024	12/06/2016	12/06/2046	Interest Rate Swap			281397-AB-5	MELNET STUDENT LOAN TRUS-SERIES 2005-4 CLASS A4R1	1	6,650,074	6,134,024
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,601,591	6,662,879	12/06/2016	12/06/2046	Interest Rate Swap			64031Q-CK-5	BRAZOS TX HGR EDU AUTH REVENUE BOND	2	6,601,591	6,662,879
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,440,268	4,852,866	12/06/2016	12/06/2046	Interest Rate Swap			106238-LJ-5	EDLINC STUDENT LOAN FUND-SERIES 2012-1 CLASS B	1	4,440,268	4,852,866
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,756,622	5,850,800	12/06/2016	12/06/2046	Interest Rate Swap			28108Q-AB-0	EDUCATION LOAN ASSET-BAC-SERIES 2003-2 CLASS 2A2	1	5,756,622	5,850,800
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,450,000	3,706,264	12/06/2016	12/06/2046	Interest Rate Swap			281397-AQ-2	GOAL CAPITAL FUNDING TR 2010-1 STUDENT LN BKD NT	1	4,450,000	3,706,264
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,066,884	2,029,687	12/06/2016	12/06/2046	Interest Rate Swap			38021E-AA-2	MELNET STUDENT LOAN TRUS-SERIES 2005-4 CLASS A4R2	1	2,066,884	2,029,687
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,395,029	3,913,363	12/06/2016	12/06/2046	Interest Rate Swap			64031Q-CM-1	SLM STUDENT LN TR 2006-5-NOTE CL B	2	3,395,029	3,913,363
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,873,869	14,722,048	12/06/2016	12/06/2046	Interest Rate Swap			83149E-AG-2	Dryden 64 CLO Ltd-DRSLF 2018-64A B	1	14,873,869	14,722,048
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,900,000	12,427,684	12/06/2016	12/06/2046	Interest Rate Swap			26251L-AE-4	DRB PRIME STUDENT LOAN T-SERIES 2015-D CLASS A1	1	13,900,000	12,427,684
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,653,888	1,654,102	12/06/2016	12/06/2046	Interest Rate Swap			23341K-AA-3	MELNET STUDENT LOAN TRUS-SERIES 2012-2A CLASS B	1	1,653,888	1,654,102
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,862,153	7,588,886	12/06/2016	12/06/2046	Interest Rate Swap			64031C-AB-8	SLM STUDENT LOAN TRUST-SERIES 2005-5 CLASS B	1	8,862,153	7,588,886
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,504,244	7,557,990	12/06/2016	12/06/2046	Interest Rate Swap			78442G-PS-9	ASSURANT CLO I LTD-ASRNT 2018-1A A	1	8,504,244	7,557,990
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		16,275,000	14,957,653	12/06/2016	12/06/2046	Interest Rate Swap			04623T-AA-3	Tryon Park CLO Ltd-TPCLO 2013-1A A1JR	1	16,275,000	14,957,653
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,781,045	12/06/2016	12/06/2046	Interest Rate Swap			89852T-AN-8	BARDOT CLO, LTD	1	3,000,000	2,781,045
57629*DF5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,000,000	4,131,105	12/06/2016	12/06/2046	Interest Rate Swap			06744N-AG-2		1	5,000,000	4,131,105
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	10,921,138	61,296,891	12/06/2016	12/06/2046	Interest Rate Swap		51,447,436	MXP001-TT-1	AEROVIAS DE MEXICO SA USD TERM LN SOUTH CAROLINA STUDENT L-SERIES 2014-1 CLASS B	1	10,921,138	9,849,455
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,626,737	9,165,501	12/05/2016	12/05/2046	Interest Rate Swap			83715R-AG-7	SLC STUDENT LOAN TRUST-SERIES 2005-1 CLASS B	1	9,626,737	9,165,501
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,739,435	7,321,356	12/06/2016	12/06/2046	Interest Rate Swap			78442G-AE-1	SLM STUDENT LOAN TRUST-SERIES 2005-8 CLASS B	1	7,739,435	7,321,356
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,826,873	4,558,124	12/06/2016	12/06/2046	Interest Rate Swap			78442G-OT-6	Cedar Funding IX CLO Ltd-SERIES 18-9A CLASS A2	1	4,826,873	4,558,124
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		19,300,000	17,225,269	12/06/2016	12/06/2046	Interest Rate Swap			15033E-AC-2	KEYCORP STUDENT LOAN TRU-SERIES 1999-B CLASS CTFS	1	19,300,000	17,225,269
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,389,578	1,401,140	12/06/2016	12/06/2046	Interest Rate Swap			493268-AU-0	NAVIENT STUDENT LOAN TRU-SERIES 2014-1 CLASS B	1	1,389,578	1,401,140
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,955,000	5,924,757	12/06/2016	12/06/2046	Interest Rate Swap			63938E-AE-4		1	6,955,000	5,924,757

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STATEMENT AS OF MARCH 31, 2020 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*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,016,455	3,940,274	12/06/2016	12/06/2046	Interest Rate Swap			64031A-AJ-5	NELNET STUDENT LOAN TRUS-SERIES 2006-3 CLASS B	1	4,016,455	3,940,274
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,222,936	5,556,112	12/06/2016	12/06/2046	Interest Rate Swap			63939L-AC-1	NAVIENT STUDENT LOAN TRU-SERIES 2015-3 CLASS B	1	6,222,936	5,556,112
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,400,276	4,758,555	12/06/2016	12/06/2046	Interest Rate Swap			64033J-AB-1	NELNET STUDENT LOAN TRUS-SERIES 2014-1A CLASS B	1	5,400,276	4,758,555
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,027,085	2,621,683	12/06/2016	12/06/2046	Interest Rate Swap			194266-AE-2	COLLEGE LOAN CORPORATION-SERIES 2005-2 CLASS B	1	3,027,085	2,621,683
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,502,129	3,856,825	12/06/2016	12/06/2046	Interest Rate Swap			64033N-AB-2	NELNET STUDENT LOAN TRUS-SERIES 2014-5A CLASS B	1	4,502,129	3,856,825
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,395,803	2,233,719	12/06/2016	12/06/2046	Interest Rate Swap			78442G-LJ-3	SLM STUDENT LOAN TRUST-SERIES 2004-3 CLASS B	1	2,395,803	2,233,719
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,650,000	3,168,005	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	3,168,005
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,207,037	2,952,892	12/06/2016	12/06/2046	Interest Rate Swap			64032F-AH-7	NELNET STUDENT LOAN TRUS-SERIES 2007-2A CLASS A4A2	1	3,207,037	2,952,892
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,293,218	2,757,243	12/06/2016	12/06/2046	Interest Rate Swap			64033L-AD-2	NELNET STUDENT LOAN TRUS-SERIES 2014-2A CLASS B	1	3,293,218	2,757,243
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,240,000	3,165,758	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	3,165,758
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		14,750,000	13,173,343	12/06/2016	12/06/2046	Interest Rate Swap			03767M-AG-3	Apidos CLO-SERIES 18-29A CLASS A2	1	14,750,000	13,173,343
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		4,500,000	3,940,128	12/06/2016	12/06/2046	Interest Rate Swap			55952Y-AT-4	Magnetite VIII Ltd-MAGNE 2014-8A CR2	1	4,500,000	3,940,128
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,700,000	5,940,642	12/06/2016	12/06/2046	Interest Rate Swap			04015U-AJ-7	Ares XXXVIII CLO Ltd-SERIES 15-38A CLASS BR	1	6,700,000	5,940,642
57629*DE8	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,000,000	2,663,955	12/06/2016	12/06/2046	Interest Rate Swap			48250R-BN-5	KKR CLO 12 Ltd-KKR 12 BR2	1	3,000,000	2,663,955
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	15,000,000	65,423,338	12/06/2016	12/06/2046	Interest Rate Swap		51,000,028	48251B-AL-4	KKR CLO 16 Ltd-SERIES 16 CLASS A1R	1	15,000,000	14,423,310
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,300,000	10,087,759	12/05/2016	12/05/2046	Interest Rate Swap			29001L-AC-5	Elmwood CLO II Ltd-ELMW2 2019-2A B	1	11,300,000	10,087,759
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		992,831	895,405	12/05/2016	12/05/2046	Interest Rate Swap			MXP001-TT-1	AEROVIAS DE MEXICO SA USD TERM LN	1	992,831	895,405
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,844,252	9,381,520	12/06/2016	12/06/2046	Interest Rate Swap			92917A-AA-4	VOYA 2018-1A A1	1	9,844,252	9,381,520
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,500,000	1,352,843	12/06/2016	12/06/2046	Interest Rate Swap			13876J-AE-2	Canyon Capital CLO Ltd-CANYC 2012-1RA B	1	1,500,000	1,352,843
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,050,000	9,976,824	12/06/2016	12/06/2046	Interest Rate Swap			03331J-AJ-1	Anchorage Capital CLO Lt-ANCHC 2018-10A B	1	11,050,000	9,976,824
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		12,575,000	11,817,243	12/06/2016	12/06/2046	Interest Rate Swap			056162-AN-0	Babson CLO Ltd 2015-I-BABSN 2015-IA	1	12,575,000	11,817,243
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,250,000	6,363,572	12/06/2016	12/06/2046	Interest Rate Swap			40439D-AE-8	AR Highbridge Loan Managem-HLM 15A-19 B	1	7,250,000	6,363,572
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,900,000	5,100,686	12/06/2016	12/06/2046	Interest Rate Swap			87250R-AB-0	TICP CLO XV Ltd-TICP 2020-15A B	1	5,900,000	5,100,686
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		5,400,000	4,679,035	12/06/2016	12/06/2046	Interest Rate Swap			87250C-AE-7	TICP CLO Ltd	1	5,400,000	4,679,035
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,475,847	1,435,267	12/06/2016	12/06/2046	Interest Rate Swap			493268-BW-5	KEYCORP STUDENT LOAN TRU-SERIES 2004-A CLASS 1B	1	1,475,847	1,435,267
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		606,747	542,080	12/06/2016	12/06/2046	Interest Rate Swap			429827-AR-9	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B1	1	606,747	542,080
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,031,932	1,760,031	12/06/2016	12/06/2046	Interest Rate Swap			429827-AS-7	HIGHER EDUCATION FUNDING-SERIES 2004-1 CLASS B2	1	2,031,932	1,760,031
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,963,396	1,914,934	12/06/2016	12/06/2046	Interest Rate Swap			64033T-AB-9	NELNET STUDENT LOAN TRUS-SERIES 2015-3A CLASS B	1	1,963,396	1,914,934
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,371,510	1,173,482	12/06/2016	12/06/2046	Interest Rate Swap			19458L-BD-1	COLLEGIATE FUNDING SERVI-SERIES 2005-A CLASS B	1	1,371,510	1,173,482
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,893,560	1,826,398	12/06/2016	12/06/2046	Interest Rate Swap			00435T-AB-7	ACCESS GROUP INC-SERIES 2015-1 CLASS B	1	1,893,560	1,826,398
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,603,240	2,280,144	12/06/2016	12/06/2046	Interest Rate Swap			78442G-RY-4	SLM STUDENT LOAN TRUST-SERIES 2006-2 CLASS B	1	2,603,240	2,280,144

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STATEMENT AS OF MARCH 31, 2020 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*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		3,189,244	3,476,548	12/06/2016	12/06/2046	Interest Rate Swap			194267-AM-2	COLLEGE LOAN CORPORATION-SERIES 2007-1 CLASS B2	1	3,189,244	3,476,548
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,048,094	1,794,865	12/06/2016	12/06/2046	Interest Rate Swap			92978J-AH-6	WACHOVIA STUDENT LOAN TR-SERIES 2006-1 CLASS B	1	2,048,094	1,794,865
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		1,547,261	1,571,091	12/06/2016	12/06/2046	Interest Rate Swap			83715R-AH-5	SOUTH CAROLINA STUDENT L-SERIES 15- A CLASS A	1	1,547,261	1,571,091
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,492,771	2,280,565	12/06/2016	12/06/2046	Interest Rate Swap			28137T-AB-9	EDUCATIONAL SERVICES OF -SERIES 2014-2 CLASS B	1	2,492,771	2,280,565
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,162,244	1,927,641	12/06/2016	12/06/2046	Interest Rate Swap			281378-AB-5	EDUCATIONAL SERVICES OF -SERIES 2015-1 CLASS B	1	2,162,244	1,927,641
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		605,434	636,917	12/06/2016	12/06/2046	Interest Rate Swap			00432C-AR-2	ACCESS GROUP-STUDENT LN REVENUE NT	1	605,434	636,917
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		11,798,476	9,806,685	12/06/2016	12/06/2046	Interest Rate Swap			63939D-AD-7	NAVIENT STUDENT LOAN TRUST 2014-8 CL B	1	11,798,476	9,806,685
57629*DD0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		9,900,000	8,928,632	12/06/2016	12/06/2046	Interest Rate Swap			69688X-AU-5	Palmer Square CLO 2014-1-SERIES 2014-1A CLASS A2RR	1	9,900,000	8,928,632
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1	125,000,000	23,500,000	70,853,806	12/06/2016	12/06/2046	Interest Rate Swap		51,006,199	92558V-AC-8	Vibrant CLO Ltd-SERIES 18-9A CLASS A2	1	23,500,000	19,847,607
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,800,000	9,428,724	12/06/2016	12/06/2046	Interest Rate Swap			94949J-AC-9	Wellfleet CLO 2018-2 Ltd-WELF 2018-2A A2	1	10,800,000	9,428,724
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,564,821	12,225,195	12/06/2016	12/06/2046	Interest Rate Swap			04017E-AE-2	ARES XXXIIR CLO LTD-SERIES 14-32RA CLASS A1B	1	13,564,821	12,225,195
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		8,790,000	8,254,109	12/06/2016	12/06/2046	Interest Rate Swap			55951P-BC-0	Magnetite VII Ltd-MAGNE 2012-7A A2R2	1	8,790,000	8,254,109
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		13,720,580	12,738,657	12/06/2016	12/06/2046	Interest Rate Swap			78442G-PL-4	SLM STUDENT LOAN TRUST-SERIES 2005-4 CLASS B	1	13,720,580	12,738,657
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		7,970,583	7,741,568	12/06/2016	12/06/2046	Interest Rate Swap			79410U-AN-1	SBF 2016-2A A1R	1	7,970,583	7,741,568
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		2,500,000	2,132,113	12/06/2016	12/06/2046	Interest Rate Swap			50188P-AN-2	LOM LTD PARTNERSHIP-SERIES 25A CLASS C2	1	2,500,000	2,132,113
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		32,736,107	31,782,766	12/06/2016	12/06/2046	Interest Rate Swap			24702F-ZZ-3	De11 Conduit Funding-B L.L.C. - Revolver	2	32,736,107	31,782,766
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		10,718,472	9,909,207	12/06/2016	12/06/2046	Interest Rate Swap			66704J-AJ-7	Northstar Education Fina-REVENUE BONDS	1	10,718,472	9,909,207
57629*DC2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1		6,750,000	5,983,956	12/06/2016	12/06/2046	Interest Rate Swap			77341D-AE-7	Rockford Tower CLO 2017--SERIES 17-3A CLASS B	1	6,750,000	5,983,956
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1	250,000,000	10,736,747	108,867,269	09/15/2017	09/15/2047	Interest Rate Swap		97,957,967	03073E-AM-7	AmerisourceBergen Corp-SENIOR UNSECURED	2	10,736,747	10,909,302
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		28,547,821	29,768,597	09/15/2017	09/15/2047	Interest Rate Swap			055450-AH-3	BHP Billiton Finance USA-DEBENTURE	1	28,547,821	29,768,597
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		12,519,338	12,555,626	09/15/2017	09/15/2047	Interest Rate Swap			12572Q-AG-0	ONE GROUP INC-SR UNSECURED	1	12,519,338	12,555,626
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		19,646,045	20,301,181	09/15/2017	09/15/2047	Interest Rate Swap			29364N-AS-7	ENTERGY MISSISSIPPI INC-SECURED NOTE	1	19,646,045	20,301,181
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		25,660,279	30,652,595	09/15/2017	09/15/2047	Interest Rate Swap			313747-AF-4	FEDERAL REALTY INVESTMEN-NOTE REID	1	25,660,279	30,652,595
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		442,166	442,777	09/15/2017	09/15/2047	Interest Rate Swap			375558-AW-3	GILEAD SCIENCES INC-SENIOR UNSECURED NOTE	1	442,166	442,777
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		28,512,196	30,628,678	09/15/2017	09/15/2047	Interest Rate Swap			75972Y-AA-9	RENAISSANCEERE FINANCE-SR UNSECURED	1	28,512,196	30,628,678
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		5,367,669	5,640,109	09/15/2017	09/15/2047	Interest Rate Swap			884315-AG-7	THOMAS & BETTS CORP-NOTE	1	5,367,669	5,640,109
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		19,122,162	19,758,070	09/15/2017	09/15/2047	Interest Rate Swap			958587-BJ-5	WEST MASS ELECTRIC CO-SENIOR UNSECURED NOTE	1	19,122,162	19,758,070
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		3,200,000	2,587,254	09/15/2017	09/15/2047	Interest Rate Swap			22615E-AE-0	Crestline Denali CLO Ltd-SERIES 2018-1A CLASS C	1	3,200,000	2,587,254
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		8,000,000	6,954,024	09/15/2017	09/15/2047	Interest Rate Swap			67104L-AG-2	QHA Loan Funding 2013-2 -QHALF 2013-2A CR	1	8,000,000	6,954,024
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		7,000,000	6,470,583	09/15/2017	09/15/2047	Interest Rate Swap			39862E-AB-0	GRIFFEN PARK CLO LTD-SERIES 17-1A CLASS B	1	7,000,000	6,470,583
57629*DM0	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		6,683,189	6,759,181	09/15/2017	09/15/2047	Interest Rate Swap			05348E-AR-0	AVALONBAY COMMUNITIES IN-SENIOR UNSECURED NOTE REID	1	6,683,189	6,759,181

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STATEMENT AS OF MARCH 31, 2020 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*DMO	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		999,501	1,013,928	09/15/2017	09/15/2047	Interest Rate Swap			907818-DG-0	UNION PACIFIC CORP-SENIOR UNSECURED NOTE	2	999,501	1,013,928
57629*DMO	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		15,176,421	16,298,771	09/15/2017	09/15/2047	Interest Rate Swap			00206R-GL-0	AT&T Inc-SENIOR UNSECURED	2	15,176,421	16,298,771
57629*DMO	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		24,044,829	21,529,470	09/15/2017	09/15/2047	Interest Rate Swap			00928Q-AQ-4	AIRCADLE LTD-SENIOR UNSECURED	2	24,044,829	21,529,470
57629*DMO	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		23,350,778	24,508,832	09/15/2017	09/15/2047	Interest Rate Swap			29365T-AF-1	Entergy Texas Inc-SECURED	2	23,350,778	24,508,832
57629*DMO	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1		24,023,077	22,507,193	09/15/2017	09/15/2047	Interest Rate Swap			90933J-AA-9	UNITED AIRLINES 2016-2 C-FIRST LIEN	2	24,023,077	22,507,193
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2	250,000,000	1,485,929	100,027,136	09/15/2017	09/15/2047	Interest Rate Swap		98,432,948	031162-CJ-7	AMGEN INC-SENIOR UNSECURED	2	1,485,929	1,594,188
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		16,564,220	15,040,480	09/15/2017	09/15/2047	Interest Rate Swap			44107T-AT-3	HOST HOTELS & RESORTS LP-SENIOR UNSECURED NOTE	2	16,564,220	15,040,480
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		33,292,177	34,366,602	09/15/2017	09/15/2047	Interest Rate Swap			445658-CD-7	JB HUNT TRANSPRT SVCS-SENIOR UNSECURED NOTE	2	33,292,177	34,366,602
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		34,850,867	38,412,659	09/15/2017	09/15/2047	Interest Rate Swap			456866-AM-4	INGERSOLL-RAND CO-DEBENTURE	2	34,850,867	38,412,659
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		28,915,641	29,055,948	09/15/2017	09/15/2047	Interest Rate Swap			664397-AK-2	EVERSOURCE ENERGY-UNSECURED NOTE	2	28,915,641	29,055,948
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		19,362,290	19,628,834	09/15/2017	09/15/2047	Interest Rate Swap			760759-AP-5	Republic Services Inc-SENIOR UNSECURED NOTE	2	19,362,290	19,628,834
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		37,912,382	39,387,044	09/15/2017	09/15/2047	Interest Rate Swap			94106L-BA-6	Waste Management Inc-SR UNSECURED	2	37,912,382	39,387,044
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		27,112,664	26,912,588	09/15/2017	09/15/2047	Interest Rate Swap			A05830-41-6	SPARC EM SPC PANAMA METR-SECURED	2	27,112,664	26,912,588
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		22,910,357	24,625,028	09/15/2017	09/15/2047	Interest Rate Swap			25389J-AQ-9	DIGITAL REALTY TRUST LP-SENIOR UNSECURED	2	22,910,357	24,625,028
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		1,827,558	1,861,614	09/15/2017	09/15/2047	Interest Rate Swap			465077-AK-1	ISRAEL ELECTRIC CORP LTD-SECURED NOTE	2	1,827,558	1,861,614
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		15,155,098	16,076,225	09/15/2017	09/15/2047	Interest Rate Swap			919794-AB-3	VALLEY NATIONAL BANCORP-SUBORDINATED NOTE	2	15,155,098	16,076,225
57629*DL2	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		15,688,470	17,258,893	09/15/2017	09/15/2047	Interest Rate Swap			042735-AK-6	Arrow Electronics Inc-DEBENTURE	2	15,688,470	17,258,893
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2	250,000,000	6,752,830	105,579,363	09/15/2017	09/15/2047	Interest Rate Swap		98,686,271	00287Y-AL-3	Abbvie Inc-SENIOR UNSECURED NOTE	2	6,752,830	6,893,092
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		5,271,771	5,376,090	09/15/2017	09/15/2047	Interest Rate Swap			00507U-AS-0	ACTAVIS FUNDING SCS-SENIOR UNSECURED NOTE	2	5,271,771	5,376,090
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		6,778,972	6,917,693	09/15/2017	09/15/2047	Interest Rate Swap			195869-AP-7	COLONIAL PIPELINE CO-SR UNSECURED	1	6,778,972	6,917,693
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		53,715,708	52,422,223	09/15/2017	09/15/2047	Interest Rate Swap			254709-AM-0	DISCOVER FINANCIAL SVS-SENIOR UNSECURED	2	53,715,708	52,422,223
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		11,499,809	11,445,149	09/15/2017	09/15/2047	Interest Rate Swap			444859-BA-9	Humana Inc-SENIOR UNSECURED NOTE	2	11,499,809	11,445,149
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		9,032,335	8,771,275	09/15/2017	09/15/2047	Interest Rate Swap			61945C-AA-1	MOSAIC CO/THE-SENIOR UNSECURED NOTE	2	9,032,335	8,771,275
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		24,554,506	22,874,570	09/15/2017	09/15/2047	Interest Rate Swap			718549-AB-4	PHILLIPS 66 PARTNERS LP-SENIOR UNSECURED	2	24,554,506	22,874,570
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		26,511,067	26,534,541	09/15/2017	09/15/2047	Interest Rate Swap			756109-AN-4	REALTY INCOME CORP-SENIOR UNSECURED NOTE REID	1	26,511,067	26,534,541
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		5,344,526	5,470,390	09/15/2017	09/15/2047	Interest Rate Swap			09247X-AJ-0	BlackRock Inc-SENIOR UNSECURED NOTE	1	5,344,526	5,470,390
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		19,465,528	19,733,494	09/15/2017	09/15/2047	Interest Rate Swap			760759-AP-5	Republic Services Inc-SENIOR UNSECURED NOTE	2	19,465,528	19,733,494
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		8,800,000	8,063,572	09/15/2017	09/15/2047	Interest Rate Swap			05683L-AC-0	Bain Capital Credit CLO -BCC 2018-1A A2	1	8,800,000	8,063,572
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		14,838,165	14,647,221	09/15/2017	09/15/2047	Interest Rate Swap			224044-CG-0	COX COMMUNICATIONS INC-SENIOR UNSECURED	2	14,838,165	14,647,221
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		22,464,601	23,429,804	09/15/2017	09/15/2047	Interest Rate Swap			709599-AZ-7	Penske Truck Leasing Co -SENIOR UNSECURED	2	22,464,601	23,429,804
57629*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		21,735,546	23,005,413	09/15/2017	09/15/2047	Interest Rate Swap			98389B-AV-2	Xcel Energy Inc-SENIOR UNSECURED	2	21,735,546	23,005,413

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STATEMENT AS OF MARCH 31, 2020 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*DP3	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		17,387,231	18,245,214	09/15/2017	09/15/2047	Interest Rate Swap			00185A-AF-1	Aon PLC-SENIOR UNSECURED NOTE	2	17,387,231	18,245,214
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2	250,000,000	21,166,827	114,568,682	09/15/2017	09/15/2047	Interest Rate Swap		98,116,294	00774M-AB-1	AERCAP IRELAND CAPITAL D-SENIOR UNSECURED	2	21,166,827	16,452,388
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		21,886,830	19,227,144	09/15/2017	09/15/2047	Interest Rate Swap			378272-AL-2	GLENCORE FUNDING LLC-SR UNSECURED	2	21,886,830	19,227,144
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		22,887,217	23,469,615	09/15/2017	09/15/2047	Interest Rate Swap			45167R-AF-1	IDEX Corp-SENIOR UNSECURED NOTE	2	22,887,217	23,469,615
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		999,778	1,052,178	09/15/2017	09/15/2047	Interest Rate Swap			49245P-AA-4	KERRY GROUP FIN SERVICES-SENIOR UNSECURED NOTE	2	999,778	1,052,178
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		21,573,042	21,685,860	09/15/2017	09/15/2047	Interest Rate Swap			67103H-AF-4	O'REILLY AUTOMOTIVE INC-SENIOR UNSECURED	2	21,573,042	21,685,860
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		1,049,667	1,045,969	09/15/2017	09/15/2047	Interest Rate Swap			72925P-AD-7	PLUM CREEK TIMBERLANDS-SENIOR UNSECURED NOTE	2	1,049,667	1,045,969
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		14,766,412	15,628,298	09/15/2017	09/15/2047	Interest Rate Swap			92343V-BR-4	Verizon Communications I-SENIOR UNSECURED NOTE	2	14,766,412	15,628,298
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		1,658,307	1,530,130	09/15/2017	09/15/2047	Interest Rate Swap			806851-AG-6	SCHLUMBERGER HLDGS CORP-SR UNSECURED	2	1,658,307	1,530,130
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		10,976,415	9,253,035	09/15/2017	09/15/2047	Interest Rate Swap			98310W-AL-2	WYNDHAM WORLDWIDE CORP-SENIOR UNSECURED NOTE	3	10,976,415	9,253,035
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		19,212,830	19,789,560	09/15/2017	09/15/2047	Interest Rate Swap			75625Q-AD-1	Roche Benckiser Treasu-SENIOR UNSECURED	1	19,212,830	19,789,560
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		23,149,066	23,580,444	09/15/2017	09/15/2047	Interest Rate Swap			465077-AK-1	ISRAEL ELECTRIC CORP LTD-SECURED NOTE	2	23,149,066	23,580,444
57629*DN8	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2		124,531,623	108,641,388	09/15/2017	09/15/2047	Interest Rate Swap			72403Z-NK-6	PIONEERS GATE LLC 2019-5 KABB NOTE	1	124,531,623	108,641,388
715638S#0	Sovereign Bond of Peru	1Z	5,000,000	10,672,018	13,482,757	03/20/2020	06/20/2025	5 Yr Credit Default Swap	(135,642)	(50,055)	912810-RP-5	US TREAS N/B-NOTE	1	10,807,660	13,532,812
91087BM#8	Sovereign Bond of Mexico	1Z	20,000,000	20,757,839	24,392,583	03/20/2020	06/20/2025	5 Yr Credit Default Swap	(1,612,012)	(1,345,386)	912833-LL-2	US TREASURY-STRIP COUPON RECEIPT	1	22,369,851	25,737,969
10575M#8	Sovereign Bond of Brazil	1Z	5,000,000	19,411,700	26,951,987	03/20/2020	06/20/2025	5 Yr Credit Default Swap	(576,760)	(404,263)	912810-RV-2	US TREASURY N/B-UNSECURED	1	19,988,460	27,356,250
Need to File with the NAIC	Sovereign Bond of Columbia	1Z	30,000,000	31,646,411	45,992,791	03/20/2020	06/20/2025	5 Yr Credit Default Swap	(3,333,395)	(1,880,647)	912810-RV-2	US TREASURY N/B-UNSECURED	1	34,979,806	47,873,438
455780S#4	Sovereign Bond of India	1Z	40,000,000	28,178,262	40,303,833	03/20/2020	06/20/2025	5 Yr Credit Default Swap	(2,803,852)	(2,098,355)	912810-RV-2	US TREASURY N/B-UNSECURED	1	30,982,114	42,402,188
455780S#4	Sovereign Bond of India	1Z		14,878,099	20,036,718	03/20/2020	06/20/2025	5 Yr Credit Default Swap			912810-RU-4	US TREASURY N/B-UNSECURED	1	14,878,099	20,036,718
Need to File with the NAIC	Sovereign Bond of Malaysia	1Z	10,000,000	14,658,145	19,937,587	03/20/2020	06/20/2025	5 Yr Credit Default Swap	(219,954)	(99,131)	912810-RU-4	US TREASURY N/B-UNSECURED	1	14,878,099	20,036,718
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1	130,000,000	33,281,852	(46,388,128)	11/07/2018	11/07/2048	Interest Rate Swap		(83,849,525)	87305Q-OM-1	TTX CO-SENIOR UNSECURED	1	33,281,852	37,461,397
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1		44,124,292	48,054,296	11/07/2018	11/07/2048	Interest Rate Swap			341081-FR-3	Florida Power & Light Co-SECURED Intercontinental Exchang-SENIOR UNSECURED	1	44,124,292	48,054,296
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1		28,947,952	33,852,881	11/07/2018	11/07/2048	Interest Rate Swap			45866F-AH-7	Intercontinental Exchang-SENIOR UNSECURED	1	28,947,952	33,852,881
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1		26,136,750	29,667,485	11/07/2018	11/07/2048	Interest Rate Swap			010392-FS-2	Alabama Power Co-SENIOR UNSECURED	1	26,136,750	29,667,485
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1		27,158,525	26,741,831	11/07/2018	11/07/2048	Interest Rate Swap			976843-BJ-0	WISCONSIN PUBLIC SERVICE-SECURED	1	27,158,525	26,741,831
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1		10,803,460	10,118,761	11/07/2018	11/07/2048	Interest Rate Swap			235851-AR-3	DANAHER CORP-SR UNSECURED	1	10,803,460	10,118,761
57629*DZ1	Evergreen Basket of Floating Rate Corporate Bonds	1		29,175,943	39,648,514	11/07/2018	11/07/2048	Interest Rate Swap			91324P-BK-7	UnitedHealth Group Inc-BOND	1	29,175,943	39,648,514
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1	170,000,000	42,300,000	(59,098,681)	11/07/2018	11/07/2048	Interest Rate Swap		(109,872,767)	45174X-AA-0	IHC Health Services Inc-SECURED	1	42,300,000	50,774,086
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1		41,500,042	42,908,967	11/07/2018	11/07/2048	Interest Rate Swap			91412N-AK-6	UNIVERSITY OF CHICAGO-UNSECURED BOND	1	41,500,042	42,908,967
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1		40,936,079	45,172,927	11/07/2018	11/07/2048	Interest Rate Swap			906548-CN-0	Union Electric Co-SECURED	1	40,936,079	45,172,927
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1		41,158,684	49,973,328	11/07/2018	11/07/2048	Interest Rate Swap			575718-AB-7	MASS INSTITUTE OF TECH-UNSECURED BOND	1	41,158,684	49,973,328
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1		33,939,740	33,627,422	11/07/2018	11/07/2048	Interest Rate Swap			391380-AC-9	GREAT-WEST LIFE CO FINANC-SENIOR UNSECURED	1	33,939,740	33,627,422
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1		31,350,202	39,176,158	11/07/2018	11/07/2048	Interest Rate Swap			717081-CY-7	Pfizer Inc-SENIOR UNSECURED NOTE	1	31,350,202	39,176,158
57629*DY4	Evergreen Basket of Floating Rate Corporate Bonds	1		24,335,663	26,993,009	11/07/2018	11/07/2048	Interest Rate Swap			12189L-AZ-4	BURLINGTN NORTH SANTA FE-SENIOR UNSECURED	1	24,335,663	26,993,009

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STATEMENT AS OF MARCH 31, 2020 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*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1	200,000,000	55,287,248	(62,793,811)	11/07/2018	11/07/2048	Interest Rate Swap	(129,104,393)		882508-BD-5	Texas Instruments Inc-SENIOR UNSECURED	1	55,287,248	66,310,582
57629*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1		50,436,999	58,363,701	11/07/2018	11/07/2048	Interest Rate Swap			745332-CG-9	PUGET SOUND ENERGY INC-SECURED	1	50,436,999	58,363,701
57629*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1		48,656,054	55,592,503	11/07/2018	11/07/2048	Interest Rate Swap			81373P-AA-1	Securian Financial Group-SENIOR UNSECURED	1	48,656,054	55,592,503
57629*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1		54,009,546	63,288,637	11/07/2018	11/07/2048	Interest Rate Swap			92826C-AF-9	VISA INC-SR UNSECURED	1	54,009,546	63,288,637
57629*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1		30,085,414	32,866,767	11/07/2018	11/07/2048	Interest Rate Swap			049560-AP-0	Atmos Energy Corp-SENIOR UNSECURED	1	30,085,414	32,866,767
57629*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1		11,594,121	14,659,495	11/07/2018	11/07/2048	Interest Rate Swap			584918-BE-3	MICROSOFT CORP-SR UNSECURED	1	11,594,121	14,659,495
57629*DX6	Evergreen Basket of Floating Rate Corporate Bonds	1		39,860,466	47,668,593	11/07/2018	11/07/2048	Interest Rate Swap			670346-AH-8	NUCOR CORP-SENIOR UNSECURED NOTE	1	39,860,466	47,668,593
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1	300,000,000	57,244,551	(119,459,303)	11/08/2018	11/08/2048	Interest Rate Swap	(192,559,865)		12572Q-AH-8	CME Group Inc-SENIOR UNSECURED	1	57,244,551	73,100,562
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		58,700,711	65,680,256	11/08/2018	11/08/2048	Interest Rate Swap			00440E-AW-7	ACE INA HOLDINGS-SR UNSECURED	1	58,700,711	65,680,256
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		53,659,057	62,124,032	11/08/2018	11/08/2048	Interest Rate Swap			30231G-AW-2	EXXON MOBIL CORPORATION-SR UNSECURED	1	53,659,057	62,124,032
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		59,103,771	71,693,295	11/08/2018	11/08/2048	Interest Rate Swap			037833-BX-7	APPLE INC-SENIOR UNSECURED	1	59,103,771	71,693,295
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		58,293,198	62,727,239	11/08/2018	11/08/2048	Interest Rate Swap			91324P-CR-1	UNITEDHEALTH GROUP INC-SR UNSECURED	1	58,293,198	62,727,239
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		80,581,103	92,139,847	11/08/2018	11/08/2048	Interest Rate Swap			023135-AQ-9	AMAZON.COM INC-SR UNSECURED	1	80,581,103	92,139,847
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		11,193,837	12,574,793	11/08/2018	11/08/2048	Interest Rate Swap			438516-BS-4	Honeywell International -SENIOR UNSECURED	1	11,193,837	12,574,793
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		20,593,026	20,661,872	11/08/2018	11/08/2048	Interest Rate Swap			20825C-AQ-7	ConocoPhillips-NOTE	1	20,593,026	20,661,872
57629*DIW8	Evergreen Basket of Floating Rate Corporate Bonds	1		33,200,403	32,998,693	11/08/2018	11/08/2048	Interest Rate Swap			26875P-AQ-4	EOG RESOURCES INC-SENIOR UNSECURED	1	33,200,403	32,998,693
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2	320,000,000	101,948,706	(89,384,411)	11/08/2018	11/08/2048	Interest Rate Swap	(205,733,585)		82620K-AT-0	SIEMENS FINANCIERINGSMAT-SENIOR UNSECURED	1	101,948,706	116,349,174
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		73,596,238	86,969,370	11/08/2018	11/08/2048	Interest Rate Swap			585055-BU-9	MEDTRONIC INC-SR UNSECURED	1	73,596,238	86,969,370
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		67,997,876	83,520,468	11/08/2018	11/08/2048	Interest Rate Swap			141781-BF-0	CARGILL INC-SR UNSECURED	1	67,997,876	83,520,468
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		45,953,582	61,895,147	11/08/2018	11/08/2048	Interest Rate Swap			023135-BM-7	Amazon.com Inc-SENIOR UNSECURED	1	45,953,582	61,895,147
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		48,403,751	58,104,975	11/08/2018	11/08/2048	Interest Rate Swap			899043-AA-1	TUFTS UNIVERSITY-UNSECURED BOND	1	48,403,751	58,104,975
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		18,883,818	23,793,186	11/08/2018	11/08/2048	Interest Rate Swap			40728T-AA-1	HAMILTON COLLEGE-UNSECURED	1	18,883,818	23,793,186
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		34,499,501	36,368,666	11/08/2018	11/08/2048	Interest Rate Swap			438516-BB-1	HONEYWELL INTERNATIONAL -SENIOR UNSECURED NOTE	1	34,499,501	36,368,666
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		32,694,402	31,958,437	11/08/2018	11/08/2048	Interest Rate Swap			11271L-AB-8	BROOKFIELD FINANCE INC-SENIOR UNSECURED	1	32,694,402	31,958,437
12607*AD2	Evergreen Basket of Floating Rate Corporate Bonds	2		34,161,439	36,560,014	11/08/2018	11/08/2048	Interest Rate Swap			26442C-AT-1	DUKE ENERGY CAROLINAS LL-SECURED	1	34,161,439	36,560,014
57629*DQ1	Evergreen Basket of Floating Rate Corporate Bonds	1	160,000,000	40,357,672	(63,184,831)	11/08/2018	11/08/2048	Interest Rate Swap	(102,950,892)		575634-AT-7	MASSACHUSETTS ELECTRIC-SENIOR UNSECURED	1	40,357,672	39,766,061
57629*DQ1	Evergreen Basket of Floating Rate Corporate Bonds	1		36,201,814	37,717,724	11/08/2018	11/08/2048	Interest Rate Swap			45138L-BD-4	IDAHO POWER CORP-SECURED NOTE	1	36,201,814	37,717,724
57629*DQ1	Evergreen Basket of Floating Rate Corporate Bonds	1		29,319,403	29,238,885	11/08/2018	11/08/2048	Interest Rate Swap			29246Q-AB-1	Empresa de Transporte de-SENIOR UNSECURED	1	29,319,403	29,238,885
57629*DQ1	Evergreen Basket of Floating Rate Corporate Bonds	1		28,339,194	35,299,592	11/08/2018	11/08/2048	Interest Rate Swap			771196-BH-4	ROCHE HOLDING INC-SENIOR UNSECURED NOTE	1	28,339,194	35,299,592
57629*DQ1	Evergreen Basket of Floating Rate Corporate Bonds	1		29,752,206	34,047,204	11/08/2018	11/08/2048	Interest Rate Swap			437076-BH-4	Home Depot Inc/The-SENIOR UNSECURED	1	29,752,206	34,047,204
57629*DQ1	Evergreen Basket of Floating Rate Corporate Bonds	1		28,275,000	37,096,376	11/08/2018	11/08/2048	Interest Rate Swap			578454-AD-2	MAYO CLINIC-UNSECURED	1	28,275,000	37,096,376

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STATEMENT AS OF MARCH 31, 2020 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*DU1	Evergreen Basket of Floating Rate Corporate Bonds	1		15,404,792	17,605,633	11/08/2018	11/08/2048	Interest Rate Swap			571676-AH-8	Mars Inc-SENIOR UNSECURED	1	15,404,792	17,605,633
57629*DU1	Evergreen Basket of Floating Rate Corporate Bonds	1		42,674,067	51,671,098	11/08/2018	11/08/2048	Interest Rate Swap			641423-BP-2	NEVADA POWER CO-SECURED NOTE	1	42,674,067	51,671,098
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1	320,000,000	60,056,179	(143,961,862)	11/08/2018	11/08/2048	Interest Rate Swap		(205,733,585)	009279-AC-4	AIRBUS SE-SENIOR UNSECURED	1	60,056,179	61,771,723
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		68,712,854	69,424,529	11/08/2018	11/08/2048	Interest Rate Swap			701094-AL-8	Parker-Hannifin Corp-SENIOR UNSECURED	2	68,712,854	69,424,529
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		61,791,675	67,995,418	11/08/2018	11/08/2048	Interest Rate Swap			23338V-AE-6	DTE Electric Co-SECURED	1	61,791,675	67,995,418
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		63,993,782	71,954,071	11/08/2018	11/08/2048	Interest Rate Swap			66989H-AH-1	NOVARTIS CAPITAL CORP-SR UNSECURED	1	63,993,782	71,954,071
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		42,238,086	57,429,297	11/08/2018	11/08/2048	Interest Rate Swap			594918-CB-8	MICROSOFT CORP-SENIOR UNSECURED	1	42,238,086	57,429,297
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		23,531,787	27,693,019	11/08/2018	11/08/2048	Interest Rate Swap			69351U-AV-5	PPL Electric Utilities C-SECURED	1	23,531,787	27,693,019
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		23,638,455	29,248,848	11/08/2018	11/08/2048	Interest Rate Swap			084664-CQ-2	Berkshire Hathaway Finan-SENIOR UNSECURED	1	23,638,455	29,248,848
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		21,503,101	26,105,030	11/08/2018	11/08/2048	Interest Rate Swap			110122-AX-6	Bristol-Myers Squibb Co-SR UNSECURED	1	21,503,101	26,105,030
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		14,703,838	17,791,546	11/08/2018	11/08/2048	Interest Rate Swap			594918-BT-0	MICROSOFT CORP-SENIOR UNSECURED	1	14,703,838	17,791,546
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		30,475,944	42,273,399	11/08/2018	11/08/2048	Interest Rate Swap			693506-BC-0	PPG INDUSTRIES INC-SENIOR UNSECURED BOND	1	30,475,944	42,273,399
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		31,621,897	32,932,720	11/08/2018	11/08/2048	Interest Rate Swap			30251B-AC-2	FWR LLC-SR UNSECURED	1	31,621,897	32,932,720
57629*DR9	Evergreen Basket of Floating Rate Corporate Bonds	1		31,262,358	32,659,380	11/08/2018	11/08/2048	Interest Rate Swap			115637-AT-7	Brown-Forman Corp-SENIOR UNSECURED	1	31,262,358	32,659,380
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1	140,000,000	38,190,076	(43,178,503)	12/03/2018	12/03/2048	Interest Rate Swap		(84,730,166)	039483-BM-3	ARCHER-DANIELS-MIDLAND C-SENIOR UNSECURED	1	38,190,076	41,551,663
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		28,224,791	28,539,838	12/03/2018	12/03/2048	Interest Rate Swap			00401M-AB-2	ABU DHABI CRUDE OIL PIPE-SECURED	1	28,224,791	28,539,838
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		31,358,180	33,946,445	12/03/2018	12/03/2048	Interest Rate Swap			207597-EH-4	Connecticut Light & Powe-SECURED	1	31,358,180	33,946,445
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		28,863,055	30,049,891	12/03/2018	12/03/2048	Interest Rate Swap			29736R-AG-5	ESTEE LAUDER CO INC-SENIOR UNSECURED	1	28,863,055	30,049,891
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		26,243,956	32,586,828	12/03/2018	12/03/2048	Interest Rate Swap			04351L-AA-8	ASCENSION HEALTH-UNSECURED BOND	1	26,243,956	32,586,828
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		10,098,149	10,815,383	12/03/2018	12/03/2048	Interest Rate Swap			00115A-AJ-8	AEP Transmission Co LLC-SENIOR UNSECURED	1	10,098,149	10,815,383
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		15,968,527	20,358,638	12/03/2018	12/03/2048	Interest Rate Swap			91481C-AA-8	UNIVERSITY OF PENNSYLVAN-SENIOR UNSECURED NOTE	1	15,968,527	20,358,638
57629*DS7	Evergreen Basket of Floating Rate Corporate Bonds	1		37,086,695	46,648,674	12/03/2018	12/03/2048	Interest Rate Swap			582839-AF-3	MEAD JOHNSON NUTRITION C-SENIOR UNSECURED NOTE	1	37,086,695	46,648,674
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1	160,000,000	38,155,946	(55,857,940)	12/03/2018	12/03/2048	Interest Rate Swap		(96,539,514)	02361D-AR-1	Ameren Illinois Co-SECURED	1	38,155,946	40,681,574
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		38,323,516	46,134,446	12/03/2018	12/03/2048	Interest Rate Swap			468223-AT-9	Jackson Laboratory/The-UNSECURED	1	38,323,516	46,134,446
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		38,026,890	44,763,505	12/03/2018	12/03/2048	Interest Rate Swap			743315-AS-2	PROGRESSIVE CORP-SENIOR UNSECURED	1	38,026,890	44,763,505
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		37,533,567	49,967,929	12/03/2018	12/03/2048	Interest Rate Swap			17858P-AB-7	City of Hope-SENIOR UNSECURED	1	37,533,567	49,967,929
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		36,530,578	34,517,203	12/03/2018	12/03/2048	Interest Rate Swap			44107H-AE-2	NY Society for Relief of-SECURED	1	36,530,578	34,517,203
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		12,010,131	13,879,895	12/03/2018	12/03/2048	Interest Rate Swap			458140-AV-2	INTEL CORP-SENIOR UNSECURED	1	12,010,131	13,879,895
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		10,329,697	11,962,451	12/03/2018	12/03/2048	Interest Rate Swap			87612E-BG-0	Target Corp-SENIOR UNSECURED	1	10,329,697	11,962,451
57629*DT5	Evergreen Basket of Floating Rate Corporate Bonds	1		33,180,385	36,417,142	12/03/2018	12/03/2048	Interest Rate Swap			110122-AQ-1	Bristol-Myers Squibb Co-NOTE	1	33,180,385	36,417,142
57629*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1	160,000,000	38,409,116	(53,417,265)	12/10/2018	12/10/2048	Interest Rate Swap		(89,698,716)	828807-CZ-8	SIMON PROPERTY GROUP LP-SENIOR UNSECURED	1	38,409,116	36,281,451

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STATEMENT AS OF MARCH 31, 2020 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*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1		34,854,618	40,701,641	12/10/2018	12/10/2048	Interest Rate Swap			12189L-BB-6	BURLINGTON NORTH SANTA FE-SENIOR UNSECURED	1	34,854,618	40,701,641
57629*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1		33,984,029	40,372,763	12/10/2018	12/10/2048	Interest Rate Swap			391382-AB-4	GREAT-WEST LIFE CO FINANC-SENIOR UNSECURED	1	33,984,029	40,372,763
57629*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1		14,628,930	18,519,653	12/10/2018	12/10/2048	Interest Rate Swap			038222-AM-7	APPLIED MATERIALS INC-SENIOR UNSECURED	1	14,628,930	18,519,653
57629*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1		47,176,573	50,513,686	12/10/2018	12/10/2048	Interest Rate Swap			210518-DB-9	Consumers Energy Co-SECURED	1	47,176,573	50,513,686
57629*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1		32,624,294	35,904,891	12/10/2018	12/10/2048	Interest Rate Swap			455434-BR-0	INDIANAPOLIS PWR & LIGHT-SECURED BOND	1	32,624,294	35,904,891
57629*DU2	Evergreen Basket of Floating Rate Corporate Bonds	1		47,252,018	63,588,092	12/10/2018	12/10/2048	Interest Rate Swap			002824-BH-2	ABBOTT LABORATORIES-SENIOR UNSECURED	1	47,252,018	63,588,092
57629*EK3	Evergreen Basket of Floating Rate Corporate Bonds	1Z	200,000,000	106,174,991	45,210,817	01/07/2019	01/07/2049	Interest Rate Swap		(98,309,016)	931142-CS-0	WAL-MART STORES INC-SENIOR NOTE	1	106,174,991	143,519,833
57629*EK3	Evergreen Basket of Floating Rate Corporate Bonds	1Z		72,249,019	82,644,756	01/07/2019	01/07/2049	Interest Rate Swap			755111-BU-4	Raytheon Co-SENIOR UNSECURED NOTE	1	72,249,019	82,644,756
57629*EK3	Evergreen Basket of Floating Rate Corporate Bonds	1Z		44,177,385	56,753,991	01/07/2019	01/07/2049	Interest Rate Swap			873050-CB-5	TTX CO-UNSECURED NOTE	1	44,177,385	56,753,991
57629*EK3	Evergreen Basket of Floating Rate Corporate Bonds	1Z		25,844,898	26,591,508	01/07/2019	01/07/2049	Interest Rate Swap			438516-AT-3	HONEYWELL INTERNATIONAL -SENIOR NOTE	1	25,844,898	26,591,508
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z	250,000,000	75,618,203	(34,206,642)	01/07/2019	01/07/2049	Interest Rate Swap		(122,258,949)	458140-AK-6	INTEL CORP-SENIOR UNSECURED NOTE	1	75,618,203	88,052,307
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		94,590,036	119,368,380	01/07/2019	01/07/2049	Interest Rate Swap			437076-AS-1	Home Depot Inc/The-SENIOR UNSECURED NOTE	1	94,590,036	119,368,380
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		49,670,073	54,257,670	01/07/2019	01/07/2049	Interest Rate Swap			341081-FG-7	FLORIDA POWER & LIGHT CO-SECURED BOND	1	49,670,073	54,257,670
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		60,197,413	75,587,950	01/07/2019	01/07/2049	Interest Rate Swap			038222-AG-0	APPLIED MATERIALS INC-SENIOR UNSECURED NOTE	1	60,197,413	75,587,950
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		42,136,310	51,911,934	01/07/2019	01/07/2049	Interest Rate Swap			20030N-AM-3	Comcast Corp-NOTE	1	42,136,310	51,911,934
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z	175,000,000	79,299,242	(2,218,923)	01/31/2019	01/31/2049	Interest Rate Swap		(92,831,609)	055451-AV-0	BHP Billiton Finance USA-SR UNSECURED	1	79,299,242	90,612,686
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		65,884,960	76,913,844	01/31/2019	01/31/2049	Interest Rate Swap			478165-AG-8	JOHNSON (S.C.) & SON INC-SENIOR UNSECURED NOTE	1	65,884,960	76,913,844
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		54,568,253	74,514,583	01/31/2019	01/31/2049	Interest Rate Swap			78409V-AB-0	S&P GLOBAL INC-SENIOR UNSECURED NOTE	1	54,568,253	74,514,583
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		27,988,602	31,107,684	01/31/2019	01/31/2049	Interest Rate Swap			141781-BJ-2	Cargill Inc-SENIOR UNSECURED	1	27,988,602	31,107,684
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z	150,000,000	47,209,625	(36,548,309)	02/04/2019	02/04/2049	Interest Rate Swap		(77,155,523)	057224-AZ-0	BAKER HUGHES INC-SENIOR NOTE	1	47,209,625	40,607,214
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		53,052,379	54,615,506	02/04/2019	02/04/2049	Interest Rate Swap			891160-MJ-9	Toronto-Dominion Bank/Th-SUBORDINATED	1	53,052,379	54,615,506
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		71,575,597	70,313,472	02/04/2019	02/04/2049	Interest Rate Swap			278865-AM-2	Ecolab Inc-SENIOR UNSECURED NOTE	2	71,575,597	70,313,472
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		18,819,204	21,228,877	02/04/2019	02/04/2049	Interest Rate Swap			532457-BR-8	ELI LILLY & CO-SENIOR UNSECURED	1	18,819,204	21,228,877
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		48,154,113	59,520,084	02/04/2019	02/04/2049	Interest Rate Swap			17275R-AF-9	Cisco Systems Inc-BOND	1	48,154,113	59,520,084
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z	165,000,000	63,364,260	(7,621,370)	02/04/2019	02/04/2049	Interest Rate Swap		(85,832,115)	68389X-AM-7	ORACLE CORP-SENIOR UNSECURED NOTE	1	63,364,260	78,210,745
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		66,281,490	75,108,029	02/04/2019	02/04/2049	Interest Rate Swap			149123-CB-5	Caterpillar Inc-SENIOR UNSECURED BOND	1	66,281,490	75,108,029
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		74,511,187	92,757,117	02/04/2019	02/04/2049	Interest Rate Swap			377372-AE-7	GLAXOSMITHKLINE CAP INC-SR UNSECURED	1	74,511,187	92,757,117
Awaiting PPN	Evergreen Basket of Floating Rate Corporate Bonds	1Z		23,754,818	28,265,802	02/04/2019	02/04/2049	Interest Rate Swap			983024-AN-0	Wyeth LLC-NOTE	1	23,754,818	28,265,802
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	266,735,060	62,610,559	147,245,652	07/31/2019	07/31/2049	TRS Bond Index		73,588,320	539830-AM-9	Lockheed Martin Corp-SENIOR UNSECURED NOTE	1	62,610,559	73,657,332
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		17,433,992	17,660,405	07/31/2019	07/31/2049	TRS Bond Index			133131-AV-4	CAMDEN PROPERTY TRUST-SENIOR UNSECURED NOTE REID	1	17,433,992	17,660,405
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		16,739,981	14,510,392	07/31/2019	07/31/2049	TRS Bond Index			023770-AA-8	AMER AIRLN 15-1 A PTT-SECURED	1	16,739,981	14,510,392

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STATEMENT AS OF MARCH 31, 2020 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
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		14,538,555	14,568,188	07/31/2019	07/31/2049	TRS Bond Index			89153V-AB-5	Total Capital Internatio-UNSECURED NOTE	1	14,538,555	14,568,188
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		1,487,189	1,492,980	07/31/2019	07/31/2049	TRS Bond Index			485134-BN-9	KANSAS CITY POWER & LT-UNSECURED NOTE	1	1,487,189	1,492,980
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		16,852,863	17,191,960	07/31/2019	07/31/2049	TRS Bond Index			52107Q-AJ-4	Lazard Group LLC-UNSECURED	2	16,852,863	17,191,960
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		16,820,000	16,954,881	07/31/2019	07/31/2049	TRS Bond Index			78403D-AL-4	SBA TOWER TRUST-FIRST LIEN	1	16,820,000	16,954,881
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,964,018	18,671,769	07/31/2019	07/31/2049	TRS Bond Index			767201-AD-8	RIO TINTO FIN USA LTD-UNSECURED NOTE	1	15,964,018	18,671,769
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,532,495	13,326,675	07/31/2019	07/31/2049	TRS Bond Index			02376U-AA-3	AMER AIRLS INC 2016-1 CL AA CTF	1	15,532,495	13,326,675
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,407,752	15,533,813	07/31/2019	07/31/2049	TRS Bond Index			039483-BB-7	Archer-Daniels-Midland C-UNSECURED NOTE	1	15,407,752	15,533,813
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,983,978	9,198,405	07/31/2019	07/31/2049	TRS Bond Index			278265-AD-5	Eaton Vance Corp-UNSECURED NOTE	1	8,983,978	9,198,405
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,731,180	15,360,988	07/31/2019	07/31/2049	TRS Bond Index			03076C-AH-9	Ameriprise Financial Inc-UNSECURED	1	15,731,180	15,360,988
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,357,361	15,231,031	07/31/2019	07/31/2049	TRS Bond Index			92928Q-AE-8	WEA Finance LLC-UNSECURED	1	15,357,361	15,231,031
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,831,336	12,581,296	07/31/2019	07/31/2049	TRS Bond Index			373298-CF-3	GEORGIA-PACIFIC LLC-UNSECURED NOTE	1	11,831,336	12,581,296
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		14,890,289	16,020,097	07/31/2019	07/31/2049	TRS Bond Index			45866F-AA-2	INTERCONTINENTALEXCHANGE-UNSECURED NOTE	1	14,890,289	16,020,097
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,971,198	6,773,330	07/31/2019	07/31/2049	TRS Bond Index			828807-CX-3	Simon Property Group LP-UNSECURED	1	6,971,198	6,773,330
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	266,875,000	22,325,023	95,017,730	07/31/2019	07/31/2049	TRS Bond Index		73,512,705	143658-BA-9	CARNIVAL CORP-UNSECURED NOTE	2	22,325,023	21,505,025
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		17,161,664	18,048,774	07/31/2019	07/31/2049	TRS Bond Index			571748-AZ-5	Marsh & McLennan Cos Inc-SR UNSECURED	1	17,161,664	18,048,774
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		20,108,967	23,248,043	07/31/2019	07/31/2049	TRS Bond Index			524671-AA-2	LEGRAND FRANCE SA-UNSECURED NOTE	1	20,108,967	23,248,043
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		20,088,883	21,261,059	07/31/2019	07/31/2049	TRS Bond Index			69353R-EQ-7	PNC Bank NA-UNSECURED	1	20,088,883	21,261,059
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		17,172,946	17,239,015	07/31/2019	07/31/2049	TRS Bond Index			10373Q-AL-4	BP Capital Markets Ameri-UNSECURED	1	17,172,946	17,239,015
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		3,576,240	3,868,283	07/31/2019	07/31/2049	TRS Bond Index			00440E-AV-9	ACE INA HOLDINGS-SR UNSECURED	1	3,576,240	3,868,283
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		19,366,195	19,399,026	07/31/2019	07/31/2049	TRS Bond Index			52107Q-AG-0	LAZARD GROUP LLC-UNSECURED	2	19,366,195	19,399,026
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,880,746	12,654,412	07/31/2019	07/31/2049	TRS Bond Index			808513-AX-3	Charles Schwab Corp/The-UNSECURED	1	11,880,746	12,654,412
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		18,790,375	18,248,500	07/31/2019	07/31/2049	TRS Bond Index			780082-AD-5	Royal Bank of Canada-SUBORDINATED	1	18,790,375	18,248,500
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		18,549,776	17,717,500	07/31/2019	07/31/2049	TRS Bond Index			00830Y-AB-7	Africa Finance Corp-UNSECURED	1	18,549,776	17,717,500
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		18,199,272	18,086,850	07/31/2019	07/31/2049	TRS Bond Index			65557F-AA-4	Nordea Bank AB-UNSECURED NOTE	1	18,199,272	18,086,850
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		18,165,289	18,958,157	07/31/2019	07/31/2049	TRS Bond Index			74340X-BH-3	Prologis LP-UNSECURED	1	18,165,289	18,958,157
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,448,251	12,663,448	07/31/2019	07/31/2049	TRS Bond Index			845743-BP-7	SOUTHWESTERN PUBLIC SERV-SECURED	1	12,448,251	12,663,448
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,057,789	8,111,656	07/31/2019	07/31/2049	TRS Bond Index			693476-BL-6	PNC FUNDING CORP-UNSECURED NOTE	1	8,057,789	8,111,656
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		17,508,992	18,522,617	07/31/2019	07/31/2049	TRS Bond Index			084670-BS-6	BERKSHIRE HATHAWAY INC-UNSECURED	1	17,508,992	18,522,617
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		29,951,311	33,611,314	07/31/2019	07/31/2049	TRS Bond Index			911312-AJ-5	UNITED PARCEL SERVICE IN-UNSECURED NOTE	1	29,951,311	33,611,314
57629*EE7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	250,000,000	97,505,033	185,621,234	07/31/2019	07/31/2049	Interest Rate Swap		88,116,201	90139P-AB-5	Twin Brook Capital Funding I WSPV, LLC	1	97,505,033	97,505,033
57629*EE7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		95,142,652	95,142,652	07/31/2019	07/31/2049	Interest Rate Swap			90139Q-AB-3	Twin Brook Capital Funding II WSPV, LLC	1	95,142,652	95,142,652

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STATEMENT AS OF MARCH 31, 2020 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*EE7	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		60,000,000	58,122,000	07/31/2019	07/31/2049	Interest Rate Swap			72403Z-NL-4	PIONEERS GATE LLC 2019-6 AXIS Note	1	60,000,000	58,122,000
57629*EF4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	250,000,000	105,116,667	192,280,016	07/31/2019	07/31/2049	Interest Rate Swap	88,687,541		72403Z-NH-3	PIONEERS GATE LLC 2019-2 MPOF Note	1	105,116,667	103,592,475
57629*EF4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		68,000,000	63,710,628	07/31/2019	07/31/2049	Interest Rate Swap			48661W-AA-6	KAYNE CLO-SERIES 19-3A CLASS A	1	68,000,000	63,710,628
57629*EF4	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		78,593,750	76,526,734	07/31/2019	07/31/2049	Interest Rate Swap			72403Z-NI-1	PIONEERS GATE LLC 2019-3 BICONA Note	1	78,593,750	76,526,734
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	275,000,000	28,141,774	125,582,489	07/30/2019	07/30/2020	Interest Rate Swap	97,028,514		22822R-BH-2	Crown Castle Towers LLC-SECURED	1	28,141,774	28,553,975
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		27,346,545	32,014,000	07/30/2019	07/30/2020	Interest Rate Swap			448814-EJ-8	HYDRO-QUEBEC-NOTE	1	27,346,545	32,014,000
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		20,177,218	21,561,734	07/30/2019	07/30/2020	Interest Rate Swap			75625Q-AE-9	Reckitt Benckiser Treasu-SENIOR UNSECURED	1	20,177,218	21,561,734
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		24,963,031	30,910,375	07/30/2019	07/30/2020	Interest Rate Swap			244199-AH-5	Deere & Co-BOND	1	24,963,031	30,910,375
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,294,228	15,333,345	07/30/2019	07/30/2020	Interest Rate Swap			854502-AD-3	STANLEY BLACK & DECKER-SENIOR UNSECURED NOTE	1	15,294,228	15,333,345
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		16,357,909	16,223,340	07/30/2019	07/30/2020	Interest Rate Swap			808513-AD-7	CHARLES SCHWAB CORP-SENIOR NOTE	1	16,357,909	16,223,340
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		24,897,787	26,606,560	07/30/2019	07/30/2020	Interest Rate Swap			11271L-AC-6	Brookfield Finance Inc-SENIOR UNSECURED	1	24,897,787	26,606,560
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,193,653	10,221,392	07/30/2019	07/30/2020	Interest Rate Swap			80687P-AA-4	Schneider Electric SE-SENIOR UNSECURED NOTE	1	10,193,653	10,221,392
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		23,161,898	22,331,806	07/30/2019	07/30/2020	Interest Rate Swap			00830Y-AC-5	Africa Finance Corp-SENIOR UNSECURED	1	23,161,898	22,331,806
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		23,088,046	23,989,038	07/30/2019	07/30/2020	Interest Rate Swap			46625H-JD-3	JPMorgan Chase & Co-SENIOR UNSECURED NOTE	1	23,088,046	23,989,038
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		23,084,409	23,946,595	07/30/2019	07/30/2020	Interest Rate Swap			11271L-AA-0	BROOKFIELD FINANCE INC-SENIOR UNSECURED	1	23,084,409	23,946,595
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,470,442	15,481,892	07/30/2019	07/30/2020	Interest Rate Swap			78412D-AN-9	SEMCO ENERGY INC-SENIOR SECURED NOTE	1	15,470,442	15,481,892
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,583,326	12,794,565	07/30/2019	07/30/2020	Interest Rate Swap			437076-AZ-5	Home Depot Inc/The-SENIOR UNSECURED	1	12,583,326	12,794,565
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,743,552	9,887,500	07/30/2019	07/30/2020	Interest Rate Swap			02665H-BF-7	American Honda Finance C-SENIOR UNSECURED	1	9,743,552	9,887,500
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		4,997,496	5,150,390	07/30/2019	07/30/2020	Interest Rate Swap			75127T-AN-4	NESTLE PURINA PETCARE CO-DEBENTURE	1	4,997,496	5,150,390
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	250,000,000	5,682,905	93,823,193	07/30/2019	06/08/2020	Interest Rate Swap	88,073,336		00038A-AB-9	ABB TREASURY CENTER USA-SENIOR UNSECURED NOTE	1	5,682,905	5,749,857
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		15,359,189	16,166,409	07/30/2019	06/08/2020	Interest Rate Swap			207597-EJ-0	Connecticut Light & Powe-SECURED	1	15,359,189	16,166,409
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,510,944	11,747,600	07/30/2019	06/08/2020	Interest Rate Swap			38141G-GS-7	Goldman Sachs Group Inc/-SENIOR UNSECURED NOTE	2	11,510,944	11,747,600
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,645,301	9,022,335	07/30/2019	06/08/2020	Interest Rate Swap			771196-BK-7	ROCHE HOLDING INC-SR UNSECURED	1	8,645,301	9,022,335
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,750,000	11,640,363	07/30/2019	06/08/2020	Interest Rate Swap			78403D-AK-6	SBA TOWER TRUST-FIRST LIEN	1	11,750,000	11,640,363
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,153,282	9,350,199	07/30/2019	06/08/2020	Interest Rate Swap			313747-AS-6	FEDERAL REALTY INVESTMEN-SENIOR UNSECURED NOTE REID	1	9,153,282	9,350,199
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		4,959,140	5,049,639	07/30/2019	06/08/2020	Interest Rate Swap			022650-AA-6	Amal Ltd Ex Im Bk Gtd Sr Nt	1	4,959,140	5,049,639
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,595,530	11,793,036	07/30/2019	06/08/2020	Interest Rate Swap			655855-FA-7	SOUTHERN RAILWAY CO-DEBENTURE	1	11,595,530	11,793,036
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		4,977,578	4,959,128	07/30/2019	06/08/2020	Interest Rate Swap			17252M-AK-6	CINTAS CORPORATION NO. 2-SENIOR UNSECURED NOTE	1	4,977,578	4,959,128
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,014,174	6,359,782	07/30/2019	06/08/2020	Interest Rate Swap			78409V-AD-6	S&P GLOBAL INC-SR UNSECURED	1	6,014,174	6,359,782
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,383,209	12,399,504	07/30/2019	06/08/2020	Interest Rate Swap			78409V-AM-6	S&P Global Inc-SENIOR UNSECURED	1	11,383,209	12,399,504
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,122,103	10,841,000	07/30/2019	06/08/2020	Interest Rate Swap			67080L-AA-3	Nuveen LLC-SENIOR UNSECURED	1	11,122,103	10,841,000

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STATEMENT AS OF MARCH 31, 2020 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
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,678,930	5,047,288	07/30/2019	06/08/2020	Interest Rate Swap			02377A-AA-6	AMER AIRLN 14-1 A PTT-SECURED NOTE	1	5,678,930	5,047,288
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,001,210	11,159,040	07/30/2019	06/08/2020	Interest Rate Swap			125720-AJ-4	OME Group Inc-SENIOR UNSECURED	1	11,001,210	11,159,040
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		2,648,148	2,698,820	07/30/2019	06/08/2020	Interest Rate Swap			133131-AT-9	CAMDEN PROPERTY TRUST-SENIOR UNSECURED NOTE REID	1	2,648,148	2,698,820
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,484,525	9,655,110	07/30/2019	06/08/2020	Interest Rate Swap			828807-DE-4	Simon Property Group LP-SENIOR UNSECURED	1	10,484,525	9,655,110
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,143,714	10,122,980	07/30/2019	06/08/2020	Interest Rate Swap			250847-EG-1	DTE Electric Co-SECURED BOND	1	10,143,714	10,122,980
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,169,527	12,667,440	07/30/2019	06/08/2020	Interest Rate Swap			039483-AN-2	Archer-Daniels-Midland C-NOTE	1	10,169,527	12,667,440
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,071,520	10,758,025	07/30/2019	06/08/2020	Interest Rate Swap			369550-BG-2	General Dynamics Corp-SENIOR UNSECURED	1	10,071,520	10,758,025
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,085,938	7,320,000	07/30/2019	06/08/2020	Interest Rate Swap			05580M-BO-1	B. Riley Financial Inc-SENIOR UNSECURED	2	11,085,938	7,320,000
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,016,678	11,253,610	07/30/2019	06/08/2020	Interest Rate Swap			448814-DX-8	HYDRO-QUEBEC-DEBENTURE	1	10,016,678	11,253,610
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,952,277	10,027,982	07/30/2019	06/08/2020	Interest Rate Swap			278865-AL-4	Ecolab Inc-SENIOR UNSECURED NOTE	2	9,952,277	10,027,982
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		4,277,498	4,439,579	07/30/2019	06/08/2020	Interest Rate Swap			46625H-KC-3	JPMorgan Chase & Co-SR UNSECURED	1	4,277,498	4,439,579
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,634,341	10,101,917	07/30/2019	06/08/2020	Interest Rate Swap			33829T-AA-4	FIVE CORNERS FUNDING TRS-UNSECURED NOTE	1	9,634,341	10,101,917
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		3,446,741	3,646,988	07/30/2019	06/08/2020	Interest Rate Swap			009363-AQ-5	AIRGAS INC-SENIOR UNSECURED NOTE	1	3,446,741	3,646,988
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,705,361	5,923,622	07/30/2019	06/08/2020	Interest Rate Swap			28364W-AM-0	ENTERGY LOUISIANA LLC 1ST MTD BD	1	5,705,361	5,923,622
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,955,277	8,815,998	07/30/2019	06/08/2020	Interest Rate Swap			89788J-AB-5	Truist Bank-SENIOR UNSECURED	1	8,955,277	8,815,998
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,009,399	6,984,500	07/30/2019	06/08/2020	Interest Rate Swap			06406R-AM-9	Bank of New York Mellon-SENIOR UNSECURED	1	7,009,399	6,984,500
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,821,917	6,787,176	07/30/2019	06/08/2020	Interest Rate Swap			110122-BY-3	Bristol-Myers Squibb Co-SENIOR UNSECURED	1	6,821,917	6,787,176
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,828,394	6,527,687	07/30/2019	06/08/2020	Interest Rate Swap			233851-CH-5	Daimler Finance North Am-SENIOR UNSECURED	1	6,828,394	6,527,687
Need to File with the NAIC	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	150,000,000	17,598,543	69,338,469	08/01/2019	08/01/2049	Interest Rate Swap		52,783,519	72403*-AK-8	PIONEERS GATE LLC 2017 2 GSCF 2011-2A-1	1	17,598,543	16,554,950
Need to File with the NAIC	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		118,981,422	108,427,770	08/01/2019	08/01/2049	Interest Rate Swap			72403*-BA-9	PIONEERS GATE LLC 2019-1 ONDK Note	1	118,981,422	108,427,770
Need to File with the NAIC	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		14,871,715	14,541,563	08/01/2019	08/01/2049	Interest Rate Swap			72403Z-MY-7	PIONEERS GATE LLC 2017-4 Alkali Term Loan	1	14,871,715	14,541,563
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	250,000,000	8,200,671	96,139,517	08/01/2019	08/01/2049	Interest Rate Swap		88,073,336	74340X-AW-1	PROLOGIS LP-SENIOR UNSECURED NOTE REID	1	8,200,671	8,066,181
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		3,530,936	3,695,965	08/01/2019	08/01/2049	Interest Rate Swap			45866F-AD-6	INTERCONTINENTALEXCHANGE-SENIOR UNSECURED	1	3,530,936	3,695,965
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,400,000	9,380,233	08/01/2019	08/01/2049	Interest Rate Swap			78403D-AJ-9	SBA TOWER TRUST-SR UNSECURED	1	9,400,000	9,380,233
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,404,330	9,833,028	08/01/2019	08/01/2049	Interest Rate Swap			64952W-CX-9	New York Life Global Fun-SECURED	1	9,404,330	9,833,028
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,665,761	10,475,185	08/01/2019	08/01/2049	Interest Rate Swap			927804-FZ-2	Virginia Electric & Powe-SENIOR UNSECURED	1	9,665,761	10,475,185
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,219,910	9,724,553	08/01/2019	08/01/2049	Interest Rate Swap			907818-DV-7	UNION PACIFIC CORP-SENIOR UNSECURED NOTE	2	9,219,910	9,724,553
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,188,510	8,743,302	08/01/2019	08/01/2049	Interest Rate Swap			559222-AR-5	Magna International Inc-SR UNSECURED	1	9,188,510	8,743,302
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,994,755	9,225,072	08/01/2019	08/01/2049	Interest Rate Swap			857477-AL-7	State Street Corp-SUBORDINATED NOTE	1	8,994,755	9,225,072
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,983,470	7,179,900	08/01/2019	08/01/2049	Interest Rate Swap			254687-CK-0	Walt Disney Co/The-SENIOR UNSECURED	1	6,983,470	7,179,900
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,910,737	9,022,061	08/01/2019	08/01/2049	Interest Rate Swap			05348E-AU-3	AVALONBAY COMMUNITIES IN-SR UNSECURED	1	8,910,737	9,022,061

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STATEMENT AS OF MARCH 31, 2020 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
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,302,229	11,492,350	08/01/2019	08/01/2049	Interest Rate Swap			863871-AM-1	STUDENT LOAN MKTG ASSOC-ZERO CPN BND	1	9,302,229	11,492,350
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,445,399	6,839,638	08/01/2019	08/01/2049	Interest Rate Swap			91159H-HR-4	US Bancorp-SENIOR UNSECURED Old National Bancorp/IN-SENIOR UNSECURED NOTE	1	6,445,399	6,839,638
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,700,000	9,349,011	08/01/2019	08/01/2049	Interest Rate Swap			680033-AC-1	Costco Wholesale Corp-SENIOR UNSECURED	1	8,700,000	9,349,011
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,702,411	6,392,839	08/01/2019	08/01/2049	Interest Rate Swap			22160K-AM-7	Consolidated Edison Co o-SENIOR UNSECURED NOTE	2	5,702,411	6,392,839
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,375,120	8,363,031	08/01/2019	08/01/2049	Interest Rate Swap			209111-EZ-2	CSX TRANSPORTATION INC-DEBENTURE	1	8,375,120	8,363,031
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,447,518	8,592,839	08/01/2019	08/01/2049	Interest Rate Swap			126410-LK-3	Parker-Hannifin Corp-NOTE	2	8,447,518	8,592,839
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		4,496,816	4,526,349	08/01/2019	08/01/2049	Interest Rate Swap			70109H-AK-1	AEP TEXAS CENTRAL CO-SR UNSECURED John Deere Capital Corp-SENIOR UNSECURED NOTE	1	4,496,816	4,526,349
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,425,589	8,909,234	08/01/2019	08/01/2049	Interest Rate Swap			0010EP-AN-8	HYDRO-QUEBEC-DEBENTURE	1	8,425,589	8,909,234
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,303,359	8,307,482	08/01/2019	08/01/2049	Interest Rate Swap			24422E-RE-1	JPMorgan Chase & Co-NOTE	1	8,303,359	8,307,482
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,164,379	9,243,621	08/01/2019	08/01/2049	Interest Rate Swap			448814-CS-0	PNC Bank NA-SENIOR UNSECURED	1	8,164,379	9,243,621
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,148,778	8,396,024	08/01/2019	08/01/2049	Interest Rate Swap			46625H-JC-5	VISA INC-SR UNSECURED Intercontinental Exchang-SENIOR UNSECURED	1	8,148,778	8,396,024
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,856,802	8,436,242	08/01/2019	08/01/2049	Interest Rate Swap			69353R-FG-8	EOG Resources Inc-SENIOR UNSECURED NOTE	1	7,856,802	8,436,242
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,003,605	6,444,198	08/01/2019	08/01/2049	Interest Rate Swap			92826C-AD-4	Wells Fargo & Co-SR UNSECURED	1	6,003,605	6,444,198
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,817,213	8,370,252	08/01/2019	08/01/2049	Interest Rate Swap			45866F-AF-1	Public Storage-SENIOR UNSECURED GLAXOSMITHKLINE CAP LTD-SR UNSECURED	1	7,817,213	8,370,252
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,129,132	11,044,619	08/01/2019	08/01/2049	Interest Rate Swap			26875P-AG-6	JOHNS HOPKINS HEALTH SYS-SENIOR UNSECURED NOTE	1	11,129,132	11,044,619
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,416,565	7,857,439	08/01/2019	08/01/2049	Interest Rate Swap			94974B-GH-7	Apple Inc-SENIOR UNSECURED	1	7,416,565	7,857,439
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		3,847,583	3,682,363	08/01/2019	08/01/2049	Interest Rate Swap			74460D-AC-3	BOC Aviation Ltd-SENIOR UNSECURED Camden Property Trust-SENIOR UNSECURED	1	3,847,583	3,682,363
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,269,549	7,501,736	08/01/2019	08/01/2049	Interest Rate Swap			377373-AD-7	Marsh & McLennan Cos Inc-SENIOR UNSECURED NOTE	1	7,269,549	7,501,736
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,079,819	7,440,793	08/01/2019	08/01/2049	Interest Rate Swap			478111-AB-3	Hubbell Inc-SENIOR UNSECURED NOTE Kennametal Inc-SENIOR UNSECURED	2	7,079,819	7,440,793
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,814,319	5,900,339	08/01/2019	08/01/2049	Interest Rate Swap			037833-CR-9	Antares Holdings LP-SENIOR UNSECURED	2	5,814,319	5,900,339
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,969,263	6,213,632	08/01/2019	08/01/2049	Interest Rate Swap			09681L-AJ-9	JB HUNT TRANSPRT SVCS-SR UNSECURED	2	5,969,263	6,213,632
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,894,451	6,148,496	08/01/2019	08/01/2049	Interest Rate Swap			133131-AW-2	Pennsylvania Electric Co-SENIOR UNSECURED	2	5,894,451	6,148,496
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,898,213	5,935,437	08/01/2019	08/01/2049	Interest Rate Swap			57174B-AX-0	Schlumberger Holdings Co-SENIOR UNSECURED	2	5,898,213	5,935,437
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z	150,000,000	24,521,855	38,168,346	08/01/2019	08/01/2049	Interest Rate Swap		13,124,454	443510-AF-9	BRAMBLES USA INC-SR UNSECURED Thermo Fisher Scientific-SENIOR UNSECURED	2	24,521,855	25,043,892
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		25,857,224	26,142,002	08/01/2019	08/01/2049	Interest Rate Swap			489170-AC-4	Antares Holdings LP-SENIOR UNSECURED	2	25,857,224	26,142,002
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		25,375,000	26,072,813	08/01/2019	08/01/2049	Interest Rate Swap			03666H-AA-9	JB HUNT TRANSPRT SVCS-SR UNSECURED	2	25,375,000	26,072,813
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		13,613,331	13,944,303	08/01/2019	08/01/2049	Interest Rate Swap			445658-CE-5	Thermo Fisher Scientific-SENIOR UNSECURED	2	13,613,331	13,944,303
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		16,547,932	18,315,762	08/01/2019	08/01/2049	Interest Rate Swap			708696-BY-4	Schlumberger Holdings Co-SENIOR UNSECURED	2	16,547,932	18,315,762
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		24,354,633	23,386,480	08/01/2019	08/01/2049	Interest Rate Swap			806851-AK-7	Antares Holdings LP-SENIOR UNSECURED	2	24,354,633	23,386,480
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		24,047,811	25,438,531	08/01/2019	08/01/2049	Interest Rate Swap			10510K-AC-1	BRAMBLES USA INC-SR UNSECURED Thermo Fisher Scientific-SENIOR UNSECURED	2	24,047,811	25,438,531
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z	200,000,000	20,857,016	45,520,904	08/01/2019	08/01/2049	Interest Rate Swap		23,126,136	883556-BX-9	Antares Holdings LP-SENIOR UNSECURED	2	20,857,016	22,394,768

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STATEMENT AS OF MARCH 31, 2020 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
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		30,763,942	31,168,122	08/01/2019	08/01/2049	Interest Rate Swap			45167R-AE-4	IDEX Corp-SENIOR UNSECURED NOTE	2	30,763,942	31,168,122
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		20,880,350	22,543,269	08/01/2019	08/01/2049	Interest Rate Swap			579780-AN-7	MCCORMICK & CO INC/MID-SENIOR UNSECURED	2	20,880,350	22,543,269
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		30,239,441	31,485,076	08/01/2019	08/01/2049	Interest Rate Swap			90932K-AA-7	United Airlines 2019-2 C-FIRST LIEN UNSECURED	2	30,239,441	31,485,076
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		29,770,837	30,748,380	08/01/2019	08/01/2049	Interest Rate Swap			25389J-AL-0	DIGITAL REALTY TRUST LP-SR UNSECURED	2	29,770,837	30,748,380
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		29,745,659	30,631,062	08/01/2019	08/01/2049	Interest Rate Swap			22822V-AE-1	CROWN CASTLE INTL CORP-SENIOR UNSECURED	2	29,745,659	30,631,062
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		29,423,034	27,251,166	08/01/2019	08/01/2049	Interest Rate Swap			378272-AF-5	GLENCORE FUNDING LLC-SENIOR UNSECURED NOTE	2	29,423,034	27,251,166
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		29,293,599	23,769,537	08/01/2019	08/01/2049	Interest Rate Swap			05369A-AA-9	Aviation Capital Group L-SENIOR UNSECURED	2	29,293,599	23,769,537
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z	200,000,000	46,127,948	80,201,995	08/30/2019	08/30/2034	Interest Rate Swap		33,251,399	984851-AF-2	Yara International ASA-SENIOR UNSECURED	2	46,127,948	46,950,596
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		36,146,720	39,084,597	08/30/2019	08/30/2034	Interest Rate Swap			28176E-AD-0	Edwards Lifesciences Cor-SENIOR UNSECURED	2	36,146,720	39,084,597
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		37,038,973	40,518,815	08/30/2019	08/30/2034	Interest Rate Swap			361448-BC-6	GATX Corp-SENIOR UNSECURED	2	37,038,973	40,518,815
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		35,616,593	34,282,720	08/30/2019	08/30/2034	Interest Rate Swap			120568-AX-8	BUNGE LTD FINANCE CORP-SENIOR UNSECURED	2	35,616,593	34,282,720
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		34,088,109	36,553,087	08/30/2019	08/30/2034	Interest Rate Swap			00908P-AC-1	Air Canada 2017-1 Class -SECURED	2	34,088,109	36,553,087
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	2Z		22,576,211	24,683,944	08/30/2019	08/30/2034	Interest Rate Swap			171340-AN-2	CHURCH & DWIGHT CO INC-SENIOR UNSECURED	2	22,576,211	24,683,944
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	306,000,000	100,000,000	165,290,949	08/30/2019	08/30/2039	Interest Rate Swap		54,244,749	30290Y-AC-5	FS Global Credit Opportu-FS GLOBAL CREDIT	1	100,000,000	111,046,200
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		36,355,247	39,601,967	08/30/2019	08/30/2039	Interest Rate Swap			801060-AD-6	Sanofi-SENIOR UNSECURED	1	36,355,247	39,601,967
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,386,797	7,817,388	08/30/2019	08/30/2039	Interest Rate Swap			00108W-AH-3	AEP Texas Inc-SENIOR UNSECURED	1	7,386,797	7,817,388
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		27,800,000	29,438,727	08/30/2019	08/30/2039	Interest Rate Swap			892331-AD-1	Toyota Motor Corp-SENIOR UNSECURED	1	27,800,000	29,438,727
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		30,536,477	33,766,051	08/30/2019	08/30/2039	Interest Rate Swap			79466L-AF-1	salesforce.com Inc-SENIOR UNSECURED	1	30,536,477	33,766,051
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		30,041,656	31,698,602	08/30/2019	08/30/2039	Interest Rate Swap			369550-BC-1	General Dynamics Corp-SENIOR UNSECURED	1	30,041,656	31,698,602
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		28,925,443	31,405,067	08/30/2019	08/30/2039	Interest Rate Swap			892330-AC-5	Toyota Industries Corp-SENIOR UNSECURED	1	28,925,443	31,405,067
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		28,305,799	28,856,296	08/30/2019	08/30/2039	Interest Rate Swap			22303Q-AN-0	COVIDIEN INTL FINANCE SA-SENIOR UNSECURED NOTE	1	28,305,799	28,856,296
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,053,809	7,357,350	08/30/2019	08/30/2039	Interest Rate Swap			313747-AU-1	Federal Realty Investmen-SENIOR UNSECURED	1	7,053,809	7,357,350
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,979,903	7,241,216	08/30/2019	08/30/2039	Interest Rate Swap			219868-BS-4	CORP ANDINA DE FOMENTO-SENIOR UNSECURED NOTE	1	6,979,903	7,241,216
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,582,476	5,781,820	08/30/2019	08/30/2039	Interest Rate Swap			879240-AQ-2	COMCAST CABLE HOLDINGS-SENIOR UNSECURED NOTE	1	5,582,476	5,781,820
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,476,660	5,480,514	08/30/2019	08/30/2039	Interest Rate Swap			91324P-BP-6	UnitedHealth Group Inc-SENIOR UNSECURED NOTE	1	5,476,660	5,480,514
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,588,195	5,989,776	08/30/2019	08/30/2039	Interest Rate Swap			023765-AA-8	AMER AIRLINE 16-2 AA PTT-FIRST LIEN UNSECURED	1	6,588,195	5,989,776
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	255,000,000	14,279,949	61,001,196	08/30/2019	08/30/2049	Interest Rate Swap		46,701,526	857477-AG-8	State Street Corp-SENIOR UNSECURED NOTE	1	14,279,949	14,299,670
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		9,983,964	10,800,874	08/30/2019	08/30/2049	Interest Rate Swap			06406R-AF-4	Bank of New York Mellon -SENIOR UNSECURED	1	9,983,964	10,800,874
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,119,937	8,098,809	08/30/2019	08/30/2049	Interest Rate Swap			982526-AQ-8	MIR WIRIGLEY JR CO-SENIOR UNSECURED NOTE	1	8,119,937	8,098,809
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		13,430,692	12,912,196	08/30/2019	08/30/2049	Interest Rate Swap			90932P-AA-6	UNITED AIR 2014-1 A PTT-SECURED NOTE	1	13,430,692	12,912,196
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		13,810,992	14,750,430	08/30/2019	08/30/2049	Interest Rate Swap			606822-AV-6	Mitsubishi UFJ Financial-SENIOR UNSECURED	1	13,810,992	14,750,430

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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
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		13,555,466	13,654,022	08/30/2019	08/30/2049	Interest Rate Swap			808513-AG-0	CHARLES SCHWAB CORP-SENIOR UNSECURED NOTE	1	13,555,466	13,654,022
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		13,126,272	13,171,847	08/30/2019	08/30/2049	Interest Rate Swap			010392-FC-7	ALABAMA POWER CO-SENIOR UNSECURED NOTE	1	13,126,272	13,171,847
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,492,261	6,537,024	08/30/2019	08/30/2049	Interest Rate Swap			45138L-AX-1	IDAH0 POWER CORP-SECURED MORTGAGE NOTE	1	6,492,261	6,537,024
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,905,123	10,575,750	08/30/2019	08/30/2049	Interest Rate Swap			143658-AF-9	CARNIVAL CORP-SENIOR UNSECURED NOTE	2	12,905,123	10,575,750
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,768,741	8,218,820	08/30/2019	08/30/2049	Interest Rate Swap			857477-AN-3	State Street Corp-SR UNSECURED	1	7,768,741	8,218,820
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		8,500,000	8,786,569	08/30/2019	08/30/2049	Interest Rate Swap			631005-BH-7	Narragansett Electric Co-SENIOR UNSECURED	1	8,500,000	8,786,569
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,627,384	14,233,665	08/30/2019	08/30/2049	Interest Rate Swap			532457-AZ-1	Eli Lilly & Co-SENIOR UNSECURED	1	12,627,384	14,233,665
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		1,899,191	1,892,723	08/30/2019	08/30/2049	Interest Rate Swap			064159-HM-1	BANK NOVA SCOTIA B C SR NT	1	1,899,191	1,892,723
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		3,328,948	3,321,273	08/30/2019	08/30/2049	Interest Rate Swap			06366R-JJ-5	BANK OF MONTREAL-SR UNSECURED	1	3,328,948	3,321,273
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,486,105	13,167,760	08/30/2019	08/30/2049	Interest Rate Swap			09062X-AF-0	BI0GEN INC-SR UNSECURED	2	12,486,105	13,167,760
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,406,506	13,177,849	08/30/2019	08/30/2049	Interest Rate Swap			46625H-JY-7	JPMorgan Chase & Co-SUBORDINATED NOTE	1	12,406,506	13,177,849
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		5,000,176	5,075,120	08/30/2019	08/30/2049	Interest Rate Swap			651333-DM-5	PROVINCE OF NEWFOUNDLAND-DEBENTURE	1	5,000,176	5,075,120
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,863,696	6,692,166	08/30/2019	08/30/2049	Interest Rate Swap			806854-AH-8	Schlumberger Investment -SR UNSECURED	1	6,863,696	6,692,166
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,939,062	8,488,746	08/30/2019	08/30/2049	Interest Rate Swap			452308-AX-7	Illinois Tool Works Inc-SENIOR UNSECURED	1	7,939,062	8,488,746
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		12,691,416	12,800,378	08/30/2019	08/30/2049	Interest Rate Swap			10112R-AS-3	BOSTON PROPERTIES LP-SENIOR UNSECURED NOTE REID	2	12,691,416	12,800,378
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		10,203,615	10,271,581	08/30/2019	08/30/2049	Interest Rate Swap			10112R-AU-8	BOSTON PROPERTIES LP-SENIOR UNSECURED NOTE REID	2	10,203,615	10,271,581
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,597,337	6,736,871	08/30/2019	08/30/2049	Interest Rate Swap			17252M-AL-4	CINTAS CORPORATION NO. 2-UNSECURED NOTE	1	6,597,337	6,736,871
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		17,259,232	19,278,891	08/30/2019	08/30/2049	Interest Rate Swap			254687-CP-9	Walt Disney Co/The-SENIOR UNSECURED	1	17,259,232	19,278,891
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		7,973,266	8,051,384	08/30/2019	08/30/2049	Interest Rate Swap			313747-AY-3	Federal Realty Investmen-SENIOR UNSECURED	1	7,973,266	8,051,384
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		11,181,000	9,241,496	08/30/2019	08/30/2049	Interest Rate Swap			477143-AJ-0	JetBlue 2019-1 Class A P-FIRST LIEN	1	11,181,000	9,241,496
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		6,492,684	6,964,757	08/30/2019	08/30/2049	Interest Rate Swap			670346-AP-0	Nucor Corp-SENIOR UNSECURED	2	6,492,684	6,964,757
57629*EG2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	89,000,000	75,000,000	89,176,177	09/03/2019	09/03/2049	Interest Rate Swap		16,283,677	72403Z-NM-2	PIONEERS GATE LLC 2019-7 CSIC Lev 11 Note	1	75,000,000	72,892,500
57629*EG2	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		50,000,000	48,570,000	09/03/2019	09/03/2049	Interest Rate Swap			72403Z-NN-0	Pioneers Gate 2019-8 OPTN	1	50,000,000	48,570,000
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	125,000,000	12,000,000	46,404,082	01/08/2020	01/08/2050	Interest Rate Swap		35,163,646	14312L-AN-7	Carlyle Global Market St-SERIES 2016-2A CLASS A2R	1	12,000,000	11,240,436
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		15,000,000	14,534,100	01/08/2020	01/08/2050	Interest Rate Swap			09626U-AJ-2	BlueMountain CLO 2013-1 -SERIES 2013-1A CLASS A1R2	1	15,000,000	14,534,100
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		15,000,000	14,689,260	01/08/2020	01/08/2050	Interest Rate Swap			501880-AJ-0	LCM XVIII LP-LCM 19A AR	1	15,000,000	14,689,260
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		15,000,000	12,765,825	01/08/2020	01/08/2050	Interest Rate Swap			22616T-AC-0	Crestline Denali CLO XVI-DEN17 2018-1A B	1	15,000,000	12,765,825
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,600,000	10,722,182	01/08/2020	01/08/2050	Interest Rate Swap			64130H-AN-1	Neuberger Berman Loan Ad-NEUB 2017-24A BR FLOATING	1	11,600,000	10,722,182
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,700,000	10,081,633	01/08/2020	01/08/2050	Interest Rate Swap			05683V-AJ-3	BCC 2019-1A B	1	11,700,000	10,081,633
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,600,000	10,014,210	01/08/2020	01/08/2050	Interest Rate Swap			88434H-AG-8	THL Credit Wind River 20-WINDR 2018-2A B	1	11,600,000	10,014,210
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,700,000	10,670,482	01/08/2020	01/08/2050	Interest Rate Swap			06759J-AG-3	Barings CLO Ltd 2019-I-SERIES 19-1A CLASS B	1	11,700,000	10,670,482

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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*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,750,000	10,504,077	01/08/2020	01/08/2050	Interest Rate Swap			50200F-AE-9	LGM 26 Ltd-SERIES 26A CLASS B	1	11,750,000	10,504,077
57629*EA5	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,782,000	12,803,527	01/08/2020	01/08/2050	Interest Rate Swap			92917N-AJ-7	Voya CLO 2019-1 Ltd-VOYA 2019-1A AR	1	11,782,000	12,803,527
57629*EB3	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	250,000,000	250,000,000	279,611,030	01/08/2020	01/08/2032	Interest Rate Swap	29,611,030		62874Z-MM-4	NB PEP Investments LP (Incorporated) - Revolving Facility	1	250,000,000	250,000,000
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	200,000,000	200,000,000	229,531,067	01/08/2020	01/08/2035	Interest Rate Swap	29,531,067		12499#-MM-8	CCOF Onshore Co-Borrower Revolving Loan	1	200,000,000	200,000,000
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	150,000,000	40,968,066	68,512,277	01/08/2020	01/08/2040	Interest Rate Swap	29,340,966		033291-AA-3	Anchorage Capital Clo 13-ANCHC 2019-13A A	1	40,968,066	39,171,311
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		23,600,284	21,718,844	01/08/2020	01/08/2040	Interest Rate Swap			542798-AC-7	Long Point Park CLO Ltd-LNGPT 2017-1A A1B	1	23,600,284	21,718,844
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		25,000,000	23,574,075	01/08/2020	01/08/2040	Interest Rate Swap			282523-AH-2	1828 CLO Ltd-GUGG4 2016-1A A1S1	1	25,000,000	23,574,075
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		25,000,000	23,493,875	01/08/2020	01/08/2040	Interest Rate Swap			14312J-AQ-5	CGMS 2015-5A A1R	1	25,000,000	23,493,875
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		24,000,000	22,468,296	01/08/2020	01/08/2040	Interest Rate Swap			48252R-AA-2	KKR 24 A1	1	24,000,000	22,468,296
57629*ED9	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		12,400,000	11,096,103	01/08/2020	01/08/2040	Interest Rate Swap			124166-AE-9	Buttermilk Park CLO Ltd-BMILK 2018-1A B1	1	12,400,000	11,096,103
57629*ED9	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	400,000,000	90,000,000	185,287,470	02/11/2020	02/11/2050	Interest Rate Swap	92,892,750		A3158#-AC-3	Hofer Financial Services Senior Note Ser	1	90,000,000	92,394,720
57629*ED9	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		87,700,000	91,335,779	02/11/2020	02/11/2050	Interest Rate Swap			87278*-AD-4	TPF Equity REIT Operatin Gtd Senior Note	1	87,700,000	91,335,779
57629*ED9	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		68,050,000	70,832,156	02/11/2020	02/11/2050	Interest Rate Swap			00458*-AB-5	AquaSure Finance Pty Ltd Gtd Senior Secu	1	68,050,000	70,832,156
57629*ED9	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		67,400,000	68,823,892	02/11/2020	02/11/2050	Interest Rate Swap			G5147*-AD-8	Johnson Matthey PLC Senior Note Ser	1	67,400,000	68,823,892
57629*ED9	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		67,300,000	71,417,952	02/11/2020	02/11/2050	Interest Rate Swap			786584-A#-9	Safran Senior Note Ser	1	67,300,000	71,417,952
57629*ED9	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		64,200,000	71,416,658	02/11/2020	02/11/2050	Interest Rate Swap			00832*-AD-8	Australia Pacific Airpor Gtd Senior Note	1	64,200,000	71,416,658
57629*EH0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	25,000,000	19,100,000	23,238,849	02/20/2020	02/20/2050	Interest Rate Swap	5,300,282		07090A-AA-1	BATLN 2019-14A A1	1	19,100,000	17,938,567
57629*EH0	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,626,755	7,832,851	02/20/2020	02/20/2050	Interest Rate Swap			48253W-AA-0	KKR CLO 28 LTD-KKR 28A A	1	7,626,755	7,832,851
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	185,000,000	11,400,000	49,782,180	02/20/2020	02/20/2050	Interest Rate Swap	39,272,657		05688H-AE-5	BAIN CAPITAL CREDIT CLO -SERIES 17-2A CLASS BR	1	11,400,000	10,509,523
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		10,500,000	9,816,345	02/20/2020	02/20/2050	Interest Rate Swap			06759J-AE-8	Barings CLO Ltd 2019-I-SERIES 19-1A CLASS A2	1	10,500,000	9,816,345
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		12,400,000	11,711,106	02/20/2020	02/20/2050	Interest Rate Swap			38136F-AH-3	GoldenTree Loan Management U	1	12,400,000	11,711,106
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		11,500,000	10,543,120	02/20/2020	02/20/2050	Interest Rate Swap			282523-AM-1	1828 CLO Ltd-GUGG4 2016-1A A1JR	1	11,500,000	10,543,120
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		9,100,000	8,553,991	02/20/2020	02/20/2050	Interest Rate Swap			413717-AC-3	Harriman Park CLO LTD-HRPK 2020-1A B1	1	9,100,000	8,553,991
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		8,000,000	7,321,616	02/20/2020	02/20/2050	Interest Rate Swap			14317R-AC-3	CARLYLE US CLO 2018-3 LT-CGMS 2018-3A A1B	1	8,000,000	7,321,616
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,700,000	6,829,977	02/20/2020	02/20/2050	Interest Rate Swap			67113G-AG-2	Oak Hill Credit Partners-OAKC 2020-5A B	1	7,700,000	6,829,977
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		9,200,000	8,478,895	02/20/2020	02/20/2050	Interest Rate Swap			64129J-BG-4	Neuberger Berman CLO XIV-NEUB 2013-14A BR2	1	9,200,000	8,478,895
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		8,000,000	7,086,728	02/20/2020	02/20/2050	Interest Rate Swap			27831B-AE-3	Eaton Vance CLO 2018-1 L-EATON 2018-1A B	1	8,000,000	7,086,728
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,800,000	6,909,880	02/20/2020	02/20/2050	Interest Rate Swap			67592F-AE-9	OCTAGON INVESTMENT PARTNERS 41, LTD.	1	7,800,000	6,909,880
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,800,000	7,025,234	02/20/2020	02/20/2050	Interest Rate Swap			06761H-AE-8	Babson CLO Ltd/Cayman Is-SERIES 19-2A CLASS A2	1	7,800,000	7,025,234
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		6,300,000	5,602,376	02/20/2020	02/20/2050	Interest Rate Swap			14316B-AE-5	Carlyle Global Market St-SERIES 19-1A CLASS A2	1	6,300,000	5,602,376
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		6,300,000	5,708,121	02/20/2020	02/20/2050	Interest Rate Swap			290015-AC-0	Elmwood CLO I Ltd-EAM 2019-1A B	1	6,300,000	5,708,121

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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*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,700,000	6,841,727	02/20/2020	02/20/2050	Interest Rate Swap			03328T-BC-8	Anchorage Capital CLO 7 --ANCHC 2015-7A BR2 FLOATING	1	7,700,000	6,841,727
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		8,000,000	7,428,576	02/20/2020	02/20/2050	Interest Rate Swap			74979V-AE-3	RR Ltd-PRAM 2018-5A A2 Octagon Investment Partn-OCT40	1	8,000,000	7,428,576
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		6,300,000	5,473,787	02/20/2020	02/20/2050	Interest Rate Swap			67592B-AE-8	2019-1A B Rockford Tower CLO 2019--ROCKT	1	6,300,000	5,473,787
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		6,300,000	5,498,590	02/20/2020	02/20/2050	Interest Rate Swap			77342M-AE-6	2019-1A B1	1	6,300,000	5,498,590
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		6,300,000	5,712,657	02/20/2020	02/20/2050	Interest Rate Swap			67707E-AG-9	OAKC 2019-2A B1 C1FC Funding 2019-I Ltd-C1FC 2019-1A B	1	6,300,000	5,712,657
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		6,300,000	5,636,201	02/20/2020	02/20/2050	Interest Rate Swap			12553D-AC-1	Madison Park Funding XXI-MDPK 2018-29A B	1	6,300,000	5,636,201
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		10,000,000	8,926,190	02/20/2020	02/20/2050	Interest Rate Swap			55820C-AG-0		1	10,000,000	8,926,190
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,800,000	6,728,522	02/20/2020	02/20/2050	Interest Rate Swap			88433C-AE-5	WINDR 2019-1A B	1	7,800,000	6,728,522
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,000,000	6,644,162	02/20/2020	02/20/2050	Interest Rate Swap			50188Q-AL-5	LCM XVIII LP-LCM 19A BR GT Loan Financing I Ltd -SERIES 2013-1A CLASS BR	1	7,000,000	6,644,162
57629*EJ6	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z		7,000,000	6,512,121	02/20/2020	02/20/2050	Interest Rate Swap			36248M-AL-1	KREF Lending VII LLC - Term Loan	1	7,000,000	6,512,121
Need to File with the NAIC	Evergreen Basket of Long Fixed Rate ABS Bank Loans and Corp Bonds	1Z	215,000,000	247,520,000	292,808,567	02/20/2020	02/20/2050	Interest Rate Swap		45,288,567	50079E-MS-5	Series 2019-7 Manchester United Football Club, Ltd Senior Secu	1	247,520,000	247,520,000
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	250,000,000	54,500,000	101,825,905	02/25/2020	02/25/2050	Interest Rate Swap		44,758,246	G5791F-AA-9	High Speed Rail Finance Gtd Senior	1	54,500,000	57,067,659
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		51,700,000	53,652,451	02/25/2020	02/25/2050	Interest Rate Swap			G4445*-AB-4	Cerner Corporation Senior Note Ser	1	51,700,000	53,652,451
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		48,550,000	50,314,016	02/25/2020	02/25/2050	Interest Rate Swap			15678F-AJ-4	Victoria Power Networks Gtd Senior Note	1	48,550,000	50,314,016
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		47,000,000	46,588,468	02/25/2020	02/25/2050	Interest Rate Swap			Q9396F-AK-7	Tortoise MLP Fund, Inc. Senior Note Ser	1	47,000,000	46,588,468
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		47,000,000	47,721,168	02/25/2020	02/25/2050	Interest Rate Swap			89148B-B*-1	Iowa Interstate Railroad Senior	1	47,000,000	47,721,168
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		45,041,000	49,250,757	02/25/2020	02/25/2050	Interest Rate Swap			46247E-AA-2	Secured Fonterra Co-operative Gr Senior	1	45,041,000	49,250,757
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	250,000,000	45,000,000	93,853,666	02/25/2020	02/25/2050	Interest Rate Swap		45,578,521	Q3920F-AL-3	Unsecured Notes South Jersey Gas Co. First Mortgage	1	45,000,000	48,275,145
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		45,000,000	47,771,685	02/25/2020	02/25/2050	Interest Rate Swap			838515-G*-9	DNP Select Income Fund I Senior	1	45,000,000	47,771,685
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		44,200,000	44,667,106	02/25/2020	02/25/2050	Interest Rate Swap			23325P-A*-5	Secured Envestra Victoria Pty Lt Senior	1	44,200,000	44,667,106
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		43,650,000	51,597,705	02/25/2020	02/25/2050	Interest Rate Swap			Q3535F-AD-8	Secured RREEF AMERICA REIT II INC SR UNSECD NT SER D	1	43,650,000	51,597,705
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		43,000,000	45,263,821	02/25/2020	02/25/2050	Interest Rate Swap			74986E-AV-3	Fonterra Co-operative Gr Senior Note	1	43,000,000	45,263,821
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		42,400,000	43,619,254	02/25/2020	02/25/2050	Interest Rate Swap			Q3920F-AG-4	Mirvac Group Finance Ltd Senior Note	1	42,400,000	43,619,254
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z	250,000,000	42,100,000	81,244,542	02/26/2020	02/26/2050	Interest Rate Swap		37,530,470	06235F-AN-2	RS 2018 Private, LLC Senior Secured	1	42,100,000	43,714,072
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		41,975,000	47,005,788	02/26/2020	02/26/2050	Interest Rate Swap			74979U-AA-3	BMW U.S. Capital LLC Gtd Senior Note	1	41,975,000	47,005,788
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		41,450,000	43,175,895	02/26/2020	02/26/2050	Interest Rate Swap			05565E-G8-8	DEXUS Funds Management L Senior Note Ser	1	41,450,000	43,175,895
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		40,850,000	42,790,784	02/26/2020	02/26/2050	Interest Rate Swap			Q3189*-AC-3		1	40,850,000	42,790,784
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		40,000,000	42,398,920	02/26/2020	02/26/2050	Interest Rate Swap			D0003*-AC-7	ADM Germany GmbH Senior Note Ser	1	40,000,000	42,398,920
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		39,600,000	39,937,511	02/26/2020	02/26/2050	Interest Rate Swap			00003F-AB-9	A&E Television Networks, Senior Note Ser	1	39,600,000	39,937,511
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		37,000,000	38,778,109	02/26/2020	02/26/2050	Interest Rate Swap			74264*-AC-0	PRISA LHC Senior Note Ser	1	37,000,000	38,778,109
Need to File with the NAIC	Evergreen Basket of Inverse Floating Rate Corporate Bonds	1Z		36,450,000	37,528,155	02/26/2020	02/26/2050	Interest Rate Swap			48661E-B*-8	KAYNE ANDERSON MID/ENERGY-SR UNSECD SER D	1	36,450,000	37,528,155
999999999 - Totals				19,860,541,977	23,645,750,935	XXX	XXX	XXX	(8,661,615)	3,529,158,325	XXX	XXX	XXX	19,869,223,592	20,116,592,610

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STATEMENT AS OF MARCH 31, 2020 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	117	16,572,610,060							117	16,572,610,060
2. Add: Opened or Acquired Transactions.....	20	2,760,000,000							20	2,760,000,000
3. Add: Increases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX		XXX		XXX		XXX		XXX	
4. Less: Closed or Disposed of Transactions.....	11	1,560,000,000							11	1,560,000,000
5. Less: Positions Disposed of for Failing Effectiveness Criteria.....										
6. Less: Decreases in Replication (Synthetic Asset) Transactions Statement Value.....	XXX		XXX		XXX		XXX		XXX	
7. Ending Inventory	126	17,772,610,060							126	17,772,610,060

STATEMENT AS OF MARCH 31, 2020 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.....	8,109,267,573
2. Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance.....	.....
3. Total (Line 1 plus Line 2).....	8,109,267,573
4. Part D, Section 1, Column 5.....	29,974,995,859
5. Part D, Section 1, Column 6.....	(21,359,630,466)
6. Total (Line 3 minus Line 4 minus Line 5).....	(506,097,820)
	Fair Value Check
7. Part A, Section 1, Column 16.....	11,647,107,609
8. Part B, Section 1, Column 13.....	506,097,820
9. Total (Line 7 plus Line 8).....	12,153,205,430
10. Part D, Section 1, Column 8.....	35,287,192,336
11. Part D, Section 1, Column 9.....	(23,133,986,907)
12. Total (Line 9 minus Line 10 minus Line 11).....	.....
	Potential Exposure Check
13. Part A, Section 1, Column 21.....	4,125,025,249
14. Part B, Section 1, Column 20.....	392,239,950
15. Part D, Section 1, Column 11.....	4,517,265,199
16. Total (Line 13 plus Line 14 minus Line 15).....	.....

SCHEDULE E - PART 2 - VERIFICATION

(Cash Equivalents)

	1	2
	Year To Date	Prior Year Ended December 31
1. Book/adjusted carrying value, December 31 of prior year	2,428,048,838	3,695,132,944
2. Cost of cash equivalents acquired	98,418,945,013	96,638,059,768
3. Accrual of discount		
4. Unrealized valuation increase (decrease)	25,956,516	52,476,788
5. Total gain (loss) on disposals	(11,242,376)	72,598
6. Deduct consideration received on disposals	91,944,900,798	97,957,693,260
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)	8,916,807,193	2,428,048,838
11. Deduct total nonadmitted amounts		
12. Statement value at end of current period (Line 10 minus Line 11)	8,916,807,193	2,428,048,838