

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

QUARTERLY STATEMENT

AS OF MARCH 31, 2021 OF THE CONDITION AND AFFAIRS OF THE

NAIC Group Code 0435 0435 NAIC Company Code 93432 Employer's ID Number 06-1041383

Organized under the Laws of	(Current) (Prior) Connecticut	State of Domicile or Po	rt of EntryCT
-	Somiouluu		
Country of Domicile	Life. Assident a	United States of America	
Licensed as business type:		nd Health [X] Fraternal Benefit Societies	
Incorporated/Organized	04/25/1980	Commenced Busine	o5/12/1981
Statutory Home Office	100 Bright Meadow Boulevard		Enfield, CT, US 06082
	(Street and Number)		ity or Town, State, Country and Zip Code)
Main Administrative Office		1295 State Street (Street and Number)	
	oringfield, MA, US 01111		413-788-8411
(City or To	wn, State, Country and Zip Code)		(Area Code) (Telephone Number)
Mail Address	1295 State Street	,	Springfield, MA, US 01111
	(Street and Number or P.O. Box)	(C	ity or Town, State, Country and Zip Code)
Primary Location of Books and Re	ecords	1295 State Street (Street and Number)	
Sp	oringfield, MA, US 01111	(Street and Number)	413-788-8411
(City or To	wn, State, Country and Zip Code)		(Area Code) (Telephone Number)
Internet Website Address		www.massmutual.com	
Statutory Statement Contact	Trevor Wade Gordo	n,	617-695-4321
to.	(Name)		(Area Code) (Telephone Number)
<u> </u>	ordon@MassMutual.com (E-mail Address)	,	413-226-4086 (FAX Number)
		OFFICERS	
President and Chief		OFFICERS	
Executive Officer			er Todd Garett Picken Ty Quoc Ho
Secretary	Akiiilokunbo Akiiibajo	Appointed Actua	ry Vy Quoc Ho
Elizabeth Ward Chicares, Exec	cutive Vice President and	OTHER	
Chief Financia		Robert Fanning, Executive Vice President	Melvin Timothy Corbett, Executive Vice President
	D	RECTORS OR TRUSTEES	
Roger William Crand Michael James	lall - Chairman	Michael Robert Fanning	Elizabeth Ward Chicares
- IVIICHAEI JAINES	<u> </u>		
State of	Massachusetts SS:		
County of	Hampden SS:		
all of the herein described assets statement, together with related e condition and affairs of the said re in accordance with the NAIC Ann rules or regulations require differespectively. Furthermore, the so	s were the absolute property of the said xhibits, schedules and explanations there porting entity as of the reporting period s usual Statement Instructions and Accounting rences in reporting not related to according to the described states of the said states of the said to the said states are the said states of the said to the said states are the said states of the said the said states are the said states are the said the said states are the said states are the said the said states are the said states are the said the s	reporting entity, free and clear from any ein contained, annexed or referred to, is a tated above, and of its income and deduc ng Practices and Procedures manual exc ounting practices and procedures, acco officers also includes the related corresp-	d reporting entity, and that on the reporting period stated above, liens or claims thereon, except as herein stated, and that this full and true statement of all the assets and liabilities and of the tions therefrom for the period ended, and have been completed ept to the extent that: (1) state law may differ; or, (2) that state rding to the best of their information, knowledge and belief, anding electronic filing with the NAIC, when required, that is an may be requested by various regulators in lieu of or in addition
Roger William Cran President and Chief Execu Subscribed and sworn to before m	tive Officer ne this	b. If no,	Todd Garett Picken Treasurer I filing?
day of		2. Date filed	ges attachedges

ASSETS

		Current Statement Date			4
		1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	December 31 Prior Year Net Admitted Assets
1.	Bonds			3,945,832,661	4,068,995,047
	Stocks:				
	2.1 Preferred stocks	5,041,986		5,041,986	5, 124, 491
	2.2 Common stocks	309,097,425		309,097,425	299,648,072
3.	Mortgage loans on real estate:				
	3.1 First liens	923,334,533		923,334,533	943, 137, 341
	3.2 Other than first liens				
4.	Real estate:				
	4.1 Properties occupied by the company (less \$				
	encumbrances)				
	4.2 Properties held for the production of income (less				
	\$ encumbrances)				
	4.3 Properties held for sale (less \$ encumbrances)				
5	Cash (\$40,295,429), cash equivalents				
0.	(\$				
	investments (\$69,981,551)	361 443 700		361,443,709	334 630 925
6.	Contract loans (including \$ premium notes)			150,519,703	
	Derivatives premium notes)			593,739,309	
8.	Other invested assets			166,338,273	
9.	Receivables for securities		·	351,077,337	
10.	Securities lending reinvested collateral assets				900,002,070
11.	Aggregate write-ins for invested assets				
12.	Subtotals, cash and invested assets (Lines 1 to 11)			6,806,424,935	
	Title plants less \$ charged off (for Title insurers				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
10.	only)				
14.	Investment income due and accrued			101,133,268	
15.	Premiums and considerations:				
	15.1 Uncollected premiums and agents' balances in the course of collection	87.887	13.135	74,752	296.393
	15.2 Deferred premiums, agents' balances and installments booked but	, , , , , , , , , , , , , , , , , , , ,		.,,,,,	
	deferred and not yet due (including \$				
	earned but unbilled premiums)	(20.105.285)		(20, 105, 285)	(12.326.329)
	15.3 Accrued retrospective premiums (\$	(20, 100, 200,		(20, 100, 200)	(12,020,020)
	contracts subject to redetermination (\$				
16.	Reinsurance:				
	16.1 Amounts recoverable from reinsurers	22,002,374		22,002,374	25,117,816
	16.2 Funds held by or deposited with reinsured companies			, ,	
	16.3 Other amounts receivable under reinsurance contracts			6,258,823	5,217,534
17.	Amounts receivable relating to uninsured plans			, , ,	
	Current federal and foreign income tax recoverable and interest thereon				5,970,673
18.2	Net deferred tax asset	54, 170, 159		28,609,807	
19.	Guaranty funds receivable or on deposit			640,514	
20.	Electronic data processing equipment and software				
21.	Furniture and equipment, including health care delivery assets				
	(\$)				
22.	Net adjustment in assets and liabilities due to foreign exchange rates				
23.	Receivables from parent, subsidiaries and affiliates			325,004	309,750
24.	Health care (\$) and other amounts receivable				
25.	Aggregate write-ins for other than invested assets	108,760	35,636	73,124	447, 121
26.	Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)			6,945,437,315	7,438,716,101
27.	From Separate Accounts, Segregated Accounts and Protected Cell	0.004.005.155		0.004.005.455	4 070 404 007
	Accounts			2,004,965,482	
28.	Total (Lines 26 and 27)	8,976,382,611	25,979,815	8,950,402,796	9,411,151,097
	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.	Miscellaneous other assets			73, 124	447 , 121
2502.	Cash advances to agents	35,636	35,636		
2503.					
2598.	Summary of remaining write-ins for Line 25 from overflow page				
2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	108,760	35,636	73,124	447, 121

LIABILITIES, SURPLUS AND OTHER FUNDS

	LIABILITIES, SURPLUS AND OTHER FU	כטוויס	
		1 Current	2 December 31
1	Aggregate reserve for life contracts \$	Statement Date	Prior Year
1.	(including \$	3,888,710,351	3,899,706,312
	Aggregate reserve for accident and health contracts (including \$ Modco Reserve)		
	Liability for deposit-type contracts (including \$ Modco Reserve) Contract claims:	/2,5/9,521	68,849,761
7.	4.1 Life	19,458,642	24,379,828
_	4.2 Accident and health		
5.	Policyholders' dividends/refunds to members \$ and coupons \$ due and unpaid		
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 \$		
	6.2 Policyholders' dividends and refunds to members not yet apportioned (including \$ Modco)		
7	6.3 Coupons and similar benefits (including \$ Modco)		
7. 8.	Amount provisionally held for deferred dividend policies not included in Line 6		
	\$ discount; including \$ accident and health premiums	23,885	9,931
9.	Contract liabilities not included elsewhere:		
	9.1 Surrender values on canceled contracts		
	experience rating refunds of which \$ is for medical loss ratio rebate per the Public Health		
	Service Act		
	9.3 Other amounts payable on reinsurance, including \$ assumed and \$	420 710	311 259
	9.4 Interest Maintenance Reserve		
10.	Commissions to agents due or accrued-life and annuity contracts \$, accident and health		
4.4	\$ and deposit-type contract funds \$ Commissions and exposes allowaness payable on reinsurance assumed		
11. 12.	Commissions and expense allowances payable on reinsurance assumed	1 099	130
	Transfers to Separate Accounts due or accrued (net) (including \$(3,483,448) accrued for expense		
	allowances recognized in reserves, net of reinsured allowances)	(3,644,679)	(3,580,839)
14.	Taxes, licenses and fees due or accrued, excluding federal income taxes Current federal and foreign income taxes, including \$	751,427	808 , 197
	Net deferred tax liability		
16.	Unearned investment income		
	Amounts withheld or retained by reporting entity as agent or trustee		
18. 19.	Amounts held for agents' account, including \$ agents' credit balances		
20.	Net adjustment in assets and liabilities due to foreign exchange rates		
21.	Liability for benefits for employees and agents if not included above		
22. 23.	Borrowed money \$ and interest thereon \$ Dividends to stockholders declared and unpaid		
24.	Miscellaneous liabilities:		
	24.01 Asset valuation reserve	99,380,257	102,906,011
	24.02 Reinsurance in unauthorized and certified (\$) companies 24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers)		
	24.04 Payable to parent, subsidiaries and affiliates		
	24.05 Drafts outstanding		
	24.06 Liability for amounts held under uninsured plans		
	24.07 Funds held under coinsurance	636.764.766	941.323.191
	24.09 Payable for securities	20,453,030	139,520
	24.10 Payable for securities lending		
25.	24.11 Capital notes \$ and interest thereon \$ Aggregate write-ins for liabilities		378,203,026
26.	Total liabilities excluding Separate Accounts business (Lines 1 to 25)	5,220,761,833	5,699,956,983
27.	From Separate Accounts Statement		1,972,434,996
28.	Total liabilities (Lines 26 and 27)	7,225,727,315	7,672,391,979
29. 30.	Common capital stock Preferred capital stock	, ,	2,500,000
31.	Aggregate write-ins for other than special surplus funds		
32.	Surplus notes		
33. 34.	Gross paid in and contributed surplus		450,276,208
3 4 .	Unassigned funds (surplus)		
	Less treasury stock, at cost:		
	36.1 shares common (value included in Line 29 \$)		
37.	36.2 shares preferred (value included in Line 30 \$	1,722,175,482	1,736,259,118
38.	Totals of Lines 29, 30 and 37	1,724,675,482	1,738,759,118
39.	Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	8,950,402,796	9,411,151,097
0504	DETAILS OF WRITE-INS Derivative collectors	144 004 005	040 EE4 000
2501. 2502.	Derivative collateral		248,551,088 126,060,423
2503.	Funds awaiting escheat and other miscellaneous	3,466,159	3,591,515
2598.	Summary of remaining write-ins for Line 25 from overflow page		
2599. 3101.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	288,386,945	378,203,026
3101. 3102.			
3103.			
3198.	Summary of remaining write-ins for Line 31 from overflow page		
3199. 3401.	Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)		
3401.			
3403.			
3498.	Summary of remaining write-ins for Line 34 from overflow page		
3499.	Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)		

SUMMARY OF OPERATIONS

		1	2	3
		Current Year	Prior Year	Prior Year Ended
		To Date	To Date	December 31
1.	Premiums and annuity considerations for life and accident and health contracts	76,041,659	78,531,376	276,229,691
2.	Considerations for supplementary contracts with life contingencies	653,070	855,080	2,866,483
3.	Net investment income	57, 107, 235	65,786,847	275,969,519
4.	Amortization of Interest Maintenance Reserve (IMR)	485,120	870,590	3, 146, 616
5.	Separate Accounts net gain from operations excluding unrealized gains or losses			
6.	Commissions and expense allowances on reinsurance ceded	13,524,216	16,245,060	59,726,388
7.				
8.	Miscellaneous Income:			
	8.1 Income from fees associated with investment management, administration and contract			
	guarantees from Separate Accounts	9,708,154	8,939,378	36,681,510
	8.2 Charges and fees for deposit-type contracts			
	8.3 Aggregate write-ins for miscellaneous income	583,140	410,589	2,178,571
9.	Totals (Lines 1 to 8.3)	158, 102, 593	171,638,920	656,798,778
10.	Death benefits	22 496 926	19,380,723	123,946,058
11.	Matured endowments (excluding guaranteed annual pure endowments)		, ,	
12.	Annuity benefits			116,231,991
13.	Disability benefits and benefits under accident and health contracts	140 634	184 950	615,698
14.	Coupons, guaranteed annual pure endowments and similar benefits			
15.	Surrender benefits and withdrawals for life contracts			330,481,226
16.	Group conversions		1 240 764	2.443.311
17.	Interest and adjustments on contract or deposit-type contract funds	(213,000)	1,248,704	
18.	Payments on supplementary contracts with life contingencies		586,918	1,935,433
19.	Increase in aggregate reserves for life and accident and health contracts		31,806,409	(36,735,295)
20.	Totals (Lines 10 to 19)	131, 199, 790	178,553,308	538,918,422
21.	Commissions on premiums, annuity considerations, and deposit-type contract funds (direct			***
	business only)	9,729,767	10,965,118	40,973,055
22.	Commissions and expense allowances on reinsurance assumed			
23.	General insurance expenses and fraternal expenses	19,233,785	20,214,169	78,004,831
24.	Insurance taxes, licenses and fees, excluding federal income taxes	3,302,956	3,425,808	9,988,649
25.	Increase in loading on deferred and uncollected premiums	332,704	313,016	(372, 133)
26.	Net transfers to or (from) Separate Accounts net of reinsurance			(122,032,452)
27.	Aggregate write-ins for deductions	(1,274,815)	(1,472,473)	(5, 174, 737)
28.	Totals (Lines 20 to 27)	127,495,344	180,609,077	540,305,635
29.	Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus	,,.	, -,	
20.		30,607,249	(8,970,157)	116.493.143
30.	Dividends to policyholders and refunds to members			
31.	Net gain from operations after dividends to policyholders, refunds to members and before federal			
01.	income taxes (Line 29 minus Line 30)	30.607.249	(8,970,157)	116.493.143
32.	Federal and foreign income taxes incurred (excluding tax on capital gains)	5,206,592	(2,779,017)	7,761,377
33.	Net gain from operations after dividends to policyholders, refunds to members and federal income	0,222,002	(=,,	.,,
00.		25,400,657	(6, 191, 140)	108.731.766
34.	Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital			
01.	gains tax of \$			
	transferred to the IMR)	(9,391,289)	2,014,389	(6,689,033)
35.		16.009.369	(4,176,751)	102.042.733
35.	Net income (Line 33 plus Line 34)	10,009,309	(4, 170, 731)	102,042,733
	CAPITAL AND SURPLUS ACCOUNT	. === ===		
36.	Capital and surplus, December 31, prior year	1,738,759,118	1,735,037,566	1,735,037,566
37.	Net income (Line 35)		(4,176,751)	102,042,733
38.	Change in net unrealized capital gains (losses) less capital gains tax of \$(12,073,619)			
39.	Change in net unrealized foreign exchange capital gain (loss)	(5,496,287)	(25,750,349)	34,444,010
40.	Change in net deferred income tax	18,892,403	(5,829,112)	(27, 115, 261)
41.	Change in nonadmitted assets	(7,409,222)	43,400,670	28,693,373
42.	Change in liability for reinsurance in unauthorized and certified companies			2,273,207
43.	Change in reserve on account of change in valuation basis, (increase) or decrease			2,500,000
44.	Change in asset valuation reserve			3,753,298
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			
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			(173,000,000)
	Aggregate write-ins for gains and losses in surplus		(1,668,364)	(6,674,750)
	Net change in capital and surplus for the year (Lines 37 through 53)	(14,083,637)	246,319,976	3,721,553
55.	Capital and surplus, as of statement date (Lines 36 + 54)	1,724,675,482	1,981,357,541	1,738,759,118
- 55.	DETAILS OF WRITE-INS	.,,570,102	.,00.,001,011	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
08 301	Revenue sharing	583 140	V13 E83	2,178,571
	Miscellaneous		(3,094)	
	MISCELIANEOUS		1 / /	
	Summary of remaining write-ins for Line 8.3 from overflow page			2 170 571
	Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	583,140	410,589	2,178,571
	Reinsurance ceded adjustment			
I	Miscellaneous charges to operations	· ·		1,498,719
2798.	Summary of remaining write-ins for Line 27 from overflow page			
2799.	Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(1,274,815)	(1,472,473)	(5, 174, 737)
		(1,544,268)	(1,668,364)	(6,674,750)
		, , , , , ,	, , , ,	
	Summary of remaining write-ins for Line 53 from overflow page			
	Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(1,544,268)	(1,668,364)	
_ 5555.		(.,511,200)	(. , 500 , 004)	(5,511,150)

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	83,726,633	81,421,425	272,480,499
2.	Net investment income	82,707,245	83,915,444	269,876,921
3.	Miscellaneous income	24,035,700	25,980,428	101,461,929
4.	Total (Lines 1 to 3)	190,469,578	191,317,298	643,819,349
5.	Benefit and loss related payments	145 , 130 , 767	168,858,315	567,830,962
	Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts			(122,202,794
7.	Commissions, expenses paid and aggregate write-ins for deductions	(251,300,525)	35,675,251	141,606,018
8.	Dividends paid to policyholders			
9.	Federal and foreign income taxes paid (recovered) net of \$ tax on capital			
	gains (losses)			14,852,93
10.	Total (Lines 5 through 9)	(141,510,078)	172,512,723	602,087,12
11.	Net cash from operations (Line 4 minus Line 10)	331,979,656	18,804,575	41,732,220
	Cash from Investments			
12.	Proceeds from investments sold, matured or repaid:			
	12.1 Bonds	195,914,400	204,641,241	681,605,520
			316,625	
	12.3 Mortgage loans		20,329,226	
	12.4 Real estate		20,020,220	
	12.5 Other invested assets		3,348,905	
	12.6 Net gains or (losses) on cash, cash equivalents and short-term investments		(409,763)	
	12.7 Miscellaneous proceeds	(63,973,520)	75,280,112	59,990,62
	12.8 Total investment proceeds (Lines 12.1 to 12.7)			
	Cost of investments acquired (long-term only):			
	13.1 Bonds	76 263 501	232 426 350	904 204 42
	13.2 Stocks		, ,	
	13.3 Mortgage loans			
		•	, ,	, ,
	13.4 Real estate		4,413,804	21,908,470
	13.5 Other invested assets		(12,737,540)	5,221,18
	13.6 Miscellaneous applications			
	13.7 Total investments acquired (Lines 13.1 to 13.6)	64, 160, 370	304,271,290	1,053,437,79
	Net increase (or decrease) in contract loans and premium notes	(2,293,077) 94,935,568	2,682,500 (3,447,444)	1,858,13
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	. , , .	(-, , , ,	7-7-
	Cash from Financing and Miscellaneous Sources			
16.	Cash provided (applied):			
	16.1 Surplus notes, capital notes			
	16.2 Capital and paid in surplus, less treasury stock			
	16.3 Borrowed funds			
	16.4 Net deposits on deposit-type contracts and other insurance liabilities			
	16.5 Dividends to stockholders			
	16.6 Other cash provided (applied)	(404,510,354)	242,990,599	207,323,30
17.	Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	(400,102,440)	235,540,374	16,674,94
	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)	26,812,784	250,897,505	(128,494,13
	Cash, cash equivalents and short-term investments:	20,012,701	200,007,000	(120, 101, 10
	19.1 Beginning of year	334,630,925	463, 125,060	463, 125, 06
	19.2 End of period (Line 18 plus Line 19.1)	361,443,709	714,022,565	334,630,92
	10.2 ETM OF PERIOD (LITTE TO PIUS LITTE 13.1)	001,0 77 0,700	1 IT, UZZ, JUJ	007,000,92
te: Su	oplemental disclosures of cash flow information for non-cash transactions:			
20.000	1. Bond conversions and refinancing		2,605,255	186,724,78
	2. Net investment income payment in-kind bonds		105,648	1,081,18 2,973,42
20.000	4. Assets received in-kind for bond maturity			6,303,39
	5. Bonds recieved as consideration for group annuity contracts			
5.550				

EXHIBIT 1

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

	DIRECT PREMIUMS AND DEPOSIT-TYPE	CONTRACTS		
		1 Current Year	2 Prior Year	3 Prior Year Ended
		To Date	To Date	December 31
	L. C. COLUE			
1.	Industrial life			
2.	Ordinary life insurance	47,578,745	47,429,126	178,018,247
3.	Ordinary individual annuities	209,785,869	247,892,382	902,336,533
4.	Credit life (group and individual)			
5.	Group life insurance			
6.	Group annuities			
7.	A & H - group			
8.	A & H - credit (group and individual)			
9.	A & H - other			
10.	Aggregate of all other lines of business			
11.	Subtotal (Lines 1 through 10)	257,364,614	295,321,508	1,080,354,780
12.	Fraternal (Fraternal Benefit Societies Only)			
13.	Subtotal (Lines 11 through 12)	257,364,614	295,321,508	1,080,354,780
14.	Deposit-type contracts			
15.	Total (Lines 13 and 14)	257,364,614	295,321,508	1,080,354,780
	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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Note 1 - Summary of Significant Accounting Policies and Going Concern

a. Accounting practices:

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

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

	SSAP#	F/S Page	F/S Line #	2021		2020
NET INCOME						
(1) State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$ 16,009,369	\$	102,042,733
(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		_	<u>-</u>
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$ 16,009,369	\$ _	102,042,733
SURPLUS						
(5) State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$ 1,724,675,482	\$	1,738,759,118
(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	<u>-</u>	_	
(8) NAIC SAP (5-6-7=8)	XXX	XXX	XXX	\$ 1,724,675,482	\$_	1,738,759,118

- 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, 2021 and 2020, the Company did not record any corrections of prior years' errors.
- b. Adoption of new accounting standards:

In July 2020, the NAIC adopted modifications to Statements of Statutory Accounting Principles (SSAP) No. 26R, Bonds, effective January 1, 2021. The modifications apply similar reporting for gains or losses due to a tender offer as previously adopted for calls. The difference between consideration and par is recognized as net investment income, while any difference between book value and par is recognized as realized gain or loss. The modifications did not have a material effect on the Company's financial statements.

In July 2020, the NAIC adopted modifications to SSAP No. 32, Preferred Stock, effective January 1, 2021. The modifications define carrying value of redeemable preferred stock as amortized cost for NAIC 1-3 designations, the lower of amortized cost or fair value for NAIC 4-6 designations, and new fair value measurement for perpetual and mandatorily convertible preferred stock. They clarify when failure to meet certain dividends or redemption payments could trigger an impairment assessment that preferred shares issued by joint ventures are included in the scope of this guidance, and clarifies scope related to sinking fund schedules, mandatory conversions, and various other features. They also clarify fair value would be capped by any currently effective call price. The revisions impacted the Company's current unaffiliated and affiliated perpetual preferred stock investments. The modifications did not have a material effect on the Company's financial statements.

In March 2021, the NAIC adopted modifications to SSAP No. 26R, Bonds, effective January 1, 2021. The modifications expand the called bond disclosures to also include bonds terminated early through a tender offer. The modifications did not have a material effect on the Company's financial statements.

In March 2021, the NAIC adopted modifications to SSAP No. 26R, Bonds, effective January 1, 2021. The modifications clarify that perpetual bonds are within scope. Perpetual bonds shall be reported at fair value regardless of NAIC designation, not to exceed any current effective call price. For perpetual bonds with an effective call option, any applicable premium shall be amortized to the next effective call date. For perpetual bonds purchased at a discount, any applicable discount shall be accreted utilizing the yield-to-worst concept. The modifications did not have a material effect on the Company's financial statements.

Note 3 - Business Combinations and Goodwill - No change

Note 4 - Discontinued Operations - No change

Note 5 - Investments

- a. Mortgage loans, including mezzanine real estate loans No change
- b. Debt restructuring No change
- c. Reverse mortgages No change
- 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)			(2) OTTI			(3)
			Amortized	Recognized		ed he			
			Cost Basis			in Loss	- Cu		
			Before	(2a	- 1	(2b)		Fair Value
			OTTI	Inter	'		-interest		1-(2a+2b)
		-					•		, , ,
OTT	I 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	_	580,686				39,102		541,584
C.	Total first quarter	\$	580,686	\$		\$	39,102	\$	541,584
0.77									
d.	I recognized in the second quarter Intent to sell	φ		¢.		¢		φ	
u. e.	Inability or lack of intent to retain the investment	\$	-	Ф	-	Ф	-	Ф	-
С.	in the security for a period of time sufficient to								
	recover the amortized cost basis		_		_		_		_
f.	Total second quarter	\$		\$		\$		\$	
••	Total Goodina quarter	Ψ		Ψ		<u> </u>		<u>*</u>	
ОТТ	Trecognized 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	_					-		<u>-</u>
i.	Total third quarter	\$		\$		\$		\$	<u> </u>
0.77									
	Trecognized in the fourth quarter	φ		¢.		¢		φ	
j. k.	Intent to sell Inability or lack of intent to retain the investment	\$	-	Ф	-	Ф	-	Ъ	-
κ.	in the security for a period of time sufficient to								
	recover the amortized cost basis		_		_		_		_
I.	Total fourth quarter	\$		\$	_	\$		\$	
		Ψ		<u>*</u>		<u>*</u>		<u>~</u>	
m.	Annual aggregate total			\$		\$	39,102		

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

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

CUSIP	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value at Time of OTTI	Date of Financial Instrument Where Reported
05535DCF9	\$ 366,060	\$ 359,326	\$ (6,734)	\$ 359,326	\$ 379,719	March 31, 2021
61750FAE0	37,595	36,005	(1,590)	36,005	32,295	March 31, 2021
22540V3F7	33,589	2,981	(30,608)	2,981	940	March 31, 2021
41161PWB5	143,442	143,272	(170)	143,272	126,338	March 31, 2021
Totals	\$ 580 686	\$ 541 584	\$ (39 102)	\$ 541 584	\$ 539 292	

(4) As of March 31, 2021, 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 \$ (888,578)
2. 12 months or longer \$ (3,000,627)

b. The aggregate related fair value of securities with unrealized losses:

 1. Less than 12 months
 \$ 60,085,522

 2. 12 months or longer
 \$ 80,832,845

(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, 2021.
- f. Repurchase agreements transactions accounted for as secured borrowing:
 - (1) The Company did not have any repurchase agreements as of March 31, 2021.
- 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, 2021.
- 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, 2021.
- 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, 2021.
- j. Real estate No change
- k. Low-Income Housing Tax Credit No change
- I. Restricted Assets No change
- m. Working capital finance investments: The Company did not invest in working capital finance investments as of March 31, 2021.
- 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, 2021.
- 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	34	36	\$34,808,227	\$36,072,048	\$35,722,578	\$36,898,121
(2)	LB&SS - AC	1	1	2,046,309	2,156,857	2,007,447	2,102,076
(3)	Preferred Stock - AC	4	4	2,059,699	2,059,699	3,863,774	3,746,517
(4)	Preferred Stock - FV		-		-		-
(5)	Total (1+2+3+4)	39	41	\$38,914,235	\$40,288,604	\$41,593,799	\$42,746,714

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, 2021				
		General Account	Separate Account			
1. Number of CUSIPS		4		N/A		
2. Aggregate amount of investment income	\$	89,604		N/A		

r. Reporting entity's share of cash pool by asset type:

Asset Type	Percent Share	
Cash	11 %	%
Cash equivalents	70 %	%
Short-term investment	19 %	%
Total	100 %	%
	Cash Cash equivalents Short-term investment	Cash 11 S Cash equivalents 70 S Short-term investment 19 S

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

Note 9 - Income Taxes - No change

Note 10 - Information Concerning Parent, Subsidiaries and Affiliates - No change

Note 11 - Debt

- a. No change
- b. The Company is not a member of the Federal Home Loan Bank (FHLB) therefore it has no FHLB funding agreements.

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

- a. Defined Benefit Plan:
 - (1-3) No change
 - (4) The Company did not have any defined benefit pension plans for which the reporting entity is directly liable.
 - (5-21) No change
- b-i. No change

Note 13 - Capital and Surplus, Dividend Restrictions and Quasi-Reorganizations

(1-3) 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 2021 or 2020.
 - (3) No change
 - (4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2021 or 2020.
 - (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, 2021 that were reacquired within 30 days of the sale date.

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

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

Note 20 - Fair Value Measurements

- a. Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The authoritative guidance around fair value establishes a measurement framework that includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs to valuation techniques into three levels. Each level reflects a unique description of the inputs that are significant to the fair value measurements. The levels of the fair value hierarchy are as follows:
 - Level 1 Observable inputs in the form of quoted prices for identical instruments in active markets.
 - Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be derived from observable market data for substantially the full term of the assets or liabilities.

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

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

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

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

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

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

				March 31, 2021			
						Net Asset	-
Financial assets:	Level 1		Level 2	Level 3		(NAV)	Total
Bonds:							
Industrial and miscellaneous	\$ -	\$	2,548,359	\$ 8,413,184	\$	- \$	10,961,543
Preferred stocks	-		-	60,189		-	60,189
Common stock - subsidiary and							
affiliates	18,408,601		-	3,084,775		-	21,493,376
Common stock - unaffiliated Derivatives:	1,227,137		-	4,998,976		-	6,226,113
Interest rate swaps	-		545,433,328	-		-	545,433,328
Options	-		28,848,047	-		-	28,848,047
Currency swaps	-		16,025,487	-		-	16,025,487
Forward contracts	-		3,417,485	-		-	3,417,485
Financial futures	14,961		-	-		-	14,961
Separate account assets	2,004,965,481					-	2,004,965,481
Total financial assets carried							
at fair value	\$ 2,024,616,180	\$	596,272,706	\$ 16,557,124	\$	- \$	2,637,446,010
Financial liabilities:							
Repurchase agreements							
Derivatives:							
Interest rate swaps	\$ -	\$	571,466,079	\$ -	\$	- \$, ,
Options	-		12,438,445	-		-	12,438,445
Currency swaps	-		20,731,374	-		-	20,731,374
Forward contracts Financial futures	21 629 410		500,458	-		-	500,458
Total financial liabilities carried	31,628,410			-		-	31,628,410
at fair value	\$ 31,628,410	\$	605,136,356	\$ -	\$	- \$	636,764,766
at fall value	<u> </u>	Ψ	000, 100,000	Ψ -	Ψ		030,704,700
				December 31, 20			
	Level 1		Level 2	Level 3	N	let Asset Value (NAV)	Total
Financial assets:							_
Bonds:							
Industrial and miscellaneous	\$ -	\$	2,087,299	\$ 10,030,471	\$	-	\$ 12,117,770
Preferred stocks	-		-	144,687		-	144,687
Common stock - subsidiary and affiliates	18,052,922		-	1,911,823		-	19,964,745
Common stock - unaffiliated	506,060		_	4,667,741		_	5,173,801
Derivatives:	000,000			4,007,741			0,170,001
Interest rate swaps	-		901,970,495	-		-	901,970,495
Options	-		39,230,827	-		-	39,230,827
Currency swaps	-		18,455,577	-		-	18,455,577
Forward contracts	-		723,111	-		-	723,111
Separate account assets	1,972,434,991		6	-		-	1,972,434,997
Total financial assets carried							
at fair value	¢ 1 000 002 072	\$	962,467,315	\$ 16,754,722	Ф		\$ 2,970,216,010
at fall value	\$ 1,990,993,973	φ	902,407,313	\$ 10,734,722	\$	<u> </u>	\$ 2,970,210,010
Financial liabilities:							
Derivatives:							
Interest rate swaps	\$ -	\$	890,142,842	\$ -	\$	-	\$ 890,142,842
Options	-		11,219,532	-		-	11,219,532
Currency swaps	_		22,936,951	-		-	22,936,951
FORWARD CONTRACTS	_		6 634 765	_			h h:34 /hh
Forward contracts	10 200 101		6,634,765	-		-	6,634,765
Financial futures - long positions	10,389,101		6,634,765	- -		- -	10,389,101
	10,389,101 \$ 10,389,101	\$	6,634,765 - 930,934,090	- - - -	\$	<u> </u>	

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

		Balance	-	. ,	(1)		,	Gains	Gains						Balance
		as of 01/01/2021		ransf	ers	Out	,	Losses) in let Income	(Losses) in Surplus	Purchases	Issuances	Sales	,	Settlements	as of 03/31/2021
Financial assets:	_	01/01/2021	In			Out	IN.	iet income	Surpius	Pulchases	issuarices	Sales		Settlements	03/31/2021
Bonds:															
Industrial and miscellaneous	\$	10,030,471	\$	- :	\$ ((1,323,903)	\$	13,774	\$ (234,467)	\$ 17,081	\$ 143,319	\$ _	\$	(233,091)	\$ 8,413,184
Preferred stocks		144,687		-		-		-	(84,498)	-	-	-		-	60,189
Common stocks - affiliated		1,911,823		-		-		-	102,019	1,070,933	-	-		-	3,084,775
Common stocks - unaffiliated		4,667,741	52	9		-		426,978	299,555	153,585	1,611	(209,434)		(341,589)	4,998,976
Total financial assets	\$	16,754,722	\$ 52	9 :	\$ ((1,323,903)	\$	440,752	\$ 82,609	\$ 1,241,599	\$ 144,930	\$ (209,434)	\$	(574,680)	\$ 16,557,124

⁽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.

	Balance as of	Trans	sfers ⁽¹		•	Gains Losses) in	Gains (Losses) in									Balance as of
	 01/01/2020	In		Out	N	let Income	Surplus	H	Purchases	- 1	ssuances	Sales	S	ettlements	1	2/31/2020
Financial assets:																
Bonds:																
Industrial and miscellaneous	\$ 9,295,673	\$ 1,453,252	\$	(6,381)	\$	(41,374)	\$ (1,348,764)	\$	483,852	\$	581,942	\$ -	\$	(387,729)	\$	10,030,471
Preferred stock	148,754	6,944		-		-	(231,466)		26,487		193,968	-		-		144,687
Common stock - affiliated	-	-		-		-	36,573		1,875,250		-	-		-		1,911,823
Common stock - unaffiliated	3,529,294	179,950		-		1,996,546	(550,950)		395,832		2,946,406	(109,554)		(3,719,783)		4,667,741
Total financial assets	\$ 12,973,721	\$ 1,640,146	\$	(6,381)	\$	1,955,172	\$ (2,094,607)	\$	2,781,421	\$	3,722,316	\$ (109,554)	\$	(4,107,512)	\$	16,754,722

⁽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.

(3) The Company reviews the fair value hierarchy classifications at each reporting period. Overall, reclassifications between levels occur when there are changes in the observability of inputs and market activity used in the valuation of a financial asset or liability. Such reclassifications are reported as transfers between levels at the beginning fair value for the reporting period in which the changes occur. Given the types of assets classified as Level 1 (primarily equity securities and mutual fund investments), transfers between Level 1 and Level 2 measurement categories are expected to be infrequent. Transfers into and out of Level 3 are summarized in the schedule of changes in Level 3 assets and liabilities.

(4) Valuation Techniques and Inputs

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

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

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

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

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

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

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

- (5) Derivative assets and liabilities fair value disclosures on a gross basis are included in paragraph 1 above. Since there are no derivative assets or liabilities classified in Level 3, the reconciliation disclosures required under paragraphs 2 through 4 are not applicable.
- b. The Company provides additional fair value information in Note 21. "Other Items".

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

March 31, 2021

				, 2021			
						Net	Not
						Asset	Practicable
	Aggregate	Admitted				Value	(Carrying
<u>-</u>	Fair Value	Assets	Level 1	Level 2	Level 3	(NAV)	Value)
Financial assets:							
Bonds:							
U. S. government and agencies	\$ 3,215,369	\$ 3,203,877	\$ -	\$ 3,215,369	\$ -	\$ -	\$ -
All other governments	1,411,982	1,284,614	-	1,411,982	-	-	-
States, territories and possessions	24,051,955	20,610,545	-	24,051,955	-	-	-
Political subdivisions	18,413,547	15,752,455	-	18,413,547	-	-	-
Special revenue	125,301,657	107,132,754	-	125,301,657	-	-	-
Industrial and miscellaneous	3,882,629,703	3,624,740,398	-	2,019,325,187	1,863,304,516	-	-
Parent, subsidiaries and affiliates	173,357,709	173,108,018	-	-	173,357,709	-	-
Preferred stocks	7,658,733	5,281,629	-	-	7,658,733	-	-
Common stock - subsidiary and affiliates ⁽¹⁾	21,493,376	21,493,376	18,408,601	-	3,084,775	-	-
Common stock - unaffiliated	6,226,113	6,226,113	1,227,137	-	4,998,976	-	-
Mortgage loans - commercial	812,767,111	778,662,501	-	-	812,767,111	-	-
Mortgage loans - residential	144,746,549	144,672,032	-	-	144,746,549	-	-
Cash, cash equivalents and							
short-term investments	361,443,709	361,443,709	40,295,429	321,148,280	-	-	-
Derivatives:							
Interest rate swaps	545,433,328	545,433,328	-	545,433,328	-	-	-
Options	28,848,047	28,848,047	-	28,848,047	-	-	-
Currency swaps	16,025,487	16,025,487	-	16,025,487	-	-	-
Forward contracts	3,417,485	3,417,485	-	3,417,485	-	-	-
Financial futures	14,961	14,961	14,961	-	-	-	-
Separate account assets	2,004,965,481	2,004,965,481	2,004,965,481	-	-	-	-
Financial liabilities:							
Individual annuity contracts	3,488,707,256	3,000,282,502	-	-	3,488,707,256	-	-
Supplementary contracts	68,160,640	67,485,782	-	-	68,160,640	-	-
Derivatives:							
Interest rate swaps	571,466,079	571,466,079	-	571,466,079	-	-	-
Options	12,438,445	12,438,445	-	12,438,445	-	-	-
Currency swaps	20,731,374	20,731,374	-	20,731,374	-	-	-
Forward contracts	500,458	500,458	-	500,458	-	_	-
Financial futures	31,628,410	31,628,410	31,628,410	-	-	_	_
	. ,,	,,	,===,0				

⁽¹⁾ Common stock - subsidiary and affiliates does not include MML Bay State Life Insurance Company (MML Bay State), which had a statutory carrying value of \$281,377,936.

December 31, 2020 Net Not Asset Practicabl Admitted Aggregate Value (Carrying Level 1 Fair Value Assets Level 2 Level 3 (NAV) Value) Financial assets: 3,332,349 3,312,933 \$ 3,332,349 \$ U. S. government and agencies \$ All other governments 1.468.821 1.293.348 1.468.821 States, territories and possessions 24,951,323 20,670,918 24,951,323 Political subdivisions 19.078.079 15.742.773 19.078.079 Special revenue 129.364.635 107,479,759 129.364.635 Industrial and miscellaneous 4,163,096,352 3,753,102,973 2,221,865,258 1,941,231,094 Parent, subsidiaries and affiliates 174.254.207 167.392.343 174.254.207 Preferred stocks 7,127,824 5,281,629 7,127,824 Common stock - subsidiary and affiliates(1) 19.964.745 19.964.745 18.052.922 1.911.823 Common stock - unaffiliated 4.667.741 5.173.801 5.173.801 506.060 Mortgage loans - commercial 827,389,040 788,133,560 827,389,040 156.235.686 155.003.780 156.235.686 Mortgage loans - residential Cash, cash equivalents and 334.630.926 334,630,926 37,396,640 297,234,286 short-term investments Derivatives: Interest rate swaps 901.970.495 901.970.495 901.970.495 39,230,827 39,230,827 Options 39,230,827 18,455,576 18,455,576 18,455,576 Currency swaps Forward contracts 723 111 723 111 723 111 Separate account assets 1,972,434,997 1,972,434,997 1,972,434,991 6 Financial liabilities: 3,746,378.339 Individual annuity contracts 3 003 895 771 3 746 378 339 Supplementary contracts 63,221,459 62,595,504 63,221,459 Derivatives: Interest rate swaps 890.142.842 890.142.842 890 142 842 Options 11,219,532 11,219,532 11,219,532 22.936.951 22.936.951 22.936.951 Currency swaps Forward contracts 6.634.766 6.634.766 6,634,766 Financial futures 10,389,101 10,389,101 10,389,101

d. As of March 31, 2021 and December 31, 2020, the Company had no investments where it was not practicable to estimate fair value.

Note 21 - Other Items

- 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 2020 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. The Company reinsures certain life insurance policies to mitigate the impact of its underwriting risk.

Investment and interest rate risks

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

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

⁽¹⁾Common stock - subsidiary and affiliates does not include MML Bay State, which had a statutory carrying value of \$274,509,526.

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. 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 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.

Political Uncertainties

Political events, domestically or internationally, may directly or indirectly trigger or exacerbate risks related to product offerings, profitability, or any of the risk factors described above. Whether those underlying risk factors are driven by politics or not, the Company's dynamic approach to managing risks enables management to identify risks, internally and externally, develop mitigation plans, and respond to risks in an attempt to proactively reduce the potential impact of each underlying risk factor on the Company.

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

Three Months Ended

<u>-</u>		Marc	ch 31, 2021		N	1arch 31, 2021
	Actual	Ca	arrying	Fair		
Alt-A:	Cost	١	/alue	Value		OTTI
a. Residential mortgage-backed securities	12,993,776	\$	14,997,759	\$ 15,999,604	\$	30,778
b. Commercial mortgage-backed securities	-		-	-		-
c. Collateralized debt obligations	-		-	-		-
d. Structured securities	-		-	-		-
e. Equity investments in SCAs *	420,056	\$	507,262	\$ 576,933	\$	-
f. Other assets	-		-	-		
g. Total	13,413,832	\$	15,505,021	\$ 16,576,537	\$	30,778

^{*} The Company's Subsidiary and Controlled Affiliate (SCA), MML Bay State, has investments in Alt-A and subprime mortgages. These investments comprise less than 1% of the Company's invested assets.

						,	Year Ended
		Dec	ember 31, 2020)		Dec	ember 31, 2020
	Actual		Carrying		Fair		
Alt-A:	 Cost		Value		Value		OTTI
a. Residential mortgage-backed securities	\$ 13,521,194	\$	15,561,519	\$	16,529,223	\$	59,717
b. Commercial mortgage-backed securities	-		-		-		-
c. Collateralized debt obligations	-		-		-		-
d. Structured securities	-		-		-		-
e. Equity investments in SCAs *	443,488		560,994		648,451		-
f. Other assets	-		-		-		
g. Total	\$ 13,964,682	\$	16,122,513	\$	17,177,674	\$	59,717

^{*} The Company's SCA, MML Bay State, has investments in Alt-A and subprime mortgages. 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 14, 2021, 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.

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 2021 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

Note 35 - Separate Accounts - No change

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 requirin 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 [X]
2.1	Has any change been made during the year of this statement in the reporting entity?	charter, by-laws, articles of incorporation,	or deed of settlement of	the	Yes [] No [X]
2.2	If yes, date of change:			····· <u>-</u>		
3.1	Is the reporting entity a member of an Insurance Holding Company S is an insurer? If yes, complete Schedule Y, Parts 1 and 1A.				Yes [X] No []
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 char	nges.				
3.4	Is the reporting entity publicly traded or a member of a publicly trade	d group?			Yes [] No [X]
3.5	If the response to 3.4 is yes, provide the CIK (Central Index Key) cool	de issued by the SEC for the entity/group.				
4.1	Has the reporting entity been a party to a merger or consolidation du If yes, complete and file the merger history data file with the NAIC.	ring the period covered by this statement?			Yes [] No [X]
4.2	If yes, provide the name of the entity, NAIC Company Code, and sta ceased to exist as a result of the merger or consolidation.	te of domicile (use two letter state abbrevi	ation) for any entity that	has		
	1 Name of Entity	2 NAIC Company Code	3 State of Domicile			
		Third company code	otato or Dominono			
5.	If the reporting entity is subject to a management agreement, includi in-fact, or similar agreement, have there been any significant change if yes, attach an explanation.	ng third-party administrator(s), managing ones regarding the terms of the agreement o	general agent(s), attorner principals involved?	∍y- Yes [] No [X] N/A [
6.1	State as of what date the latest financial examination of the reporting	g entity was made or is being made		····- <u>-</u>	12/	31/2019
6.2	State the as of date that the latest financial examination report beca date should be the date of the examined balance sheet and not the				12/	31/2014
6.3	State as of what date the latest financial examination report became the reporting entity. This is the release date or completion date of th date).	e examination report and not the date of the	ne examination (balance	sheet	05/	31/2016
6.4 6.5	By what department or departments? State of Connecticut Insurance Department Have all financial statement adjustments within the latest financial extatement filed with Departments?			Yes [] No [] N/A [X
6.6	Have all of the recommendations within the latest financial examinat	ion report been complied with?		Yes [X] No [] N/A [
7.1	Has this reporting entity had any Certificates of Authority, licenses 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	y the Federal Reserve Board?			Yes [] No [X]
8.2	If response to 8.1 is yes, please identify the name of the bank holding	g 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 locati regulatory services agency [i.e. the Federal Reserve Board (FRB), the Insurance Corporation (FDIC) and the Securities Exchange Commission (FDIC) and the Securities (FDIC) and the	ne Office of the Comptroller of the Currence	y (OCC), the Federal D			
	1 Affiliate Name	2 Location (City, State)	3 4 FRB 00]
	Aπiliate Name Barings LLC	Charlotte, NC	FKB OC	,C FUI	C SEC YES	1
	Baring International Investment Limited	London, UK			YES	
	Barings Securities LLC	Springfield MA	·····		YESYES	-
	MML Investment Advisers. LLC	Enfield. CT			YES	1

Allillate Name	Location (City, State)	FKB		רטוט	5
Barings LLC					
Baring International Investment Limited	London, UK				YES
Barings Securities LLC	Charlotte, NC				YES
MML Distributors, LLC	Springfield, MA				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		
Flourish Financial LLC	New York, NY				YES
<u>-</u>					

GENERAL INTERROGATORIES

9.1	Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, o similar functions) of the reporting entity subject to a code of ethics, which includes the following standards? (a) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between person relationships; (b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting (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.	nal and professional	Yes [X] No [1
9.11	If the response to 9.1 is No, please explain:				
9.2 9.21	Has the code of ethics for senior managers been amended?		Yes [] No [Х]
9.3 9.31	Have any provisions of the code of ethics been waived for any of the specified officers?		Yes [] No [Х]
	FINANCIAL				
10.1 10.2	Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement? If yes, indicate any amounts receivable from parent included in the Page 2 amount:				
	INVESTMENT				
	Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or other use by another person? (Exclude securities under securities lending agreements.) If yes, give full and complete information relating thereto: Letter stock or securities restricted as to sale - excluding deposit with states Amount of real estate and mortgages held in other invested assets in Schedule BA: Amount of real estate and mortgages held in short-term investments: Does the reporting entity have any investments in parent, subsidiaries and affiliates? If yes, please complete the following:	\$ \$			2,629
		1 Prior Year-End Book/Adjusted Carrying Value	Вс	2 rrent Qua ook/Adjust rrying Va	ted
	Bonds			173 , 10	
	Preferred Stock \$			202.07	
	Common Stock \$ Short-Term Investments \$ \$			302,87	,
14 25	Mortgage Loans on Real Estate\$				
	All Other \$			79,21	
	Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)			555 , 19	
	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?		Y l seY	1 No [1
	If yes, has a comprehensive description of the hedging program been made available to the domiciliary state?				
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, Parl				
	16.3 Total payable for securities landing reported on the liability page.				

GENERAL INTERROGATORIES

17.1	Tor an agreements the	1	requirements of the NAIC Finance			2				
		Name of Cus	todian(s)			Custodian Addr	ess			
	Citibank, N.A	- N Δ		. 333 West 34t	h Street, New	York, NY 10001	Vork NV 10005			
	State Street Global	Services		801 Pennsylv	mattan Fiaza, Mania Avenue, H	Kansas Citv. MC) 64105			
17.2	For all agreements that location and a comple		vith the requirements of the NAIC	Financial Con	dition Examine	rs Handbook, p	rovide the name,			
	1 Name(s)	2 Location(s)		(3 Complete Expla	nation(s)			
	Have there been any of the search of the sea		g name changes, in the custodianeto:	(s) identified in	17.1 during th	e current quarte	er?	Yes	[]	No [X
	1 Old Custo	odian	2 New Custodian	Date	3 of Change		4 Reason			
17.5	make investment deci	sions on behalf o	nvestment advisors, investment m f the reporting entity. For assets the trment accounts"; "handle secur	nat are manage						
		Name of Firm	1 n or Individual	2 Affilia	ation					
	IFM Investors Pty Lt	d		U						
	17.5097 For those firm	ns/individuals liste	ed in the table for Question 17.5, demore than 10% of the reporting e	lo any firms/ind	dividuals unaffi			Yes	s []	No [2
	17.5098 For firms/inditotal assets u	viduals unaffiliate nder managemer	d with the reporting entity (i.e. des	signated with a the reporting e	"U") listed in the	ne table for Que	stion 17.5, does the	Yes	;[]	No []
17.6	For those firms or inditable below.	viduals listed in th	ne table for 17.5 with an affiliation	code of "A" (af	filiated) or "U"	(unaffiliated), pr	ovide the information for the	he		
	1		2			3	4			5 stment
	Control Deviatoria								Mana	gement ement
	Central Registration									
	Depository Number	D: 110	Name of Firm or Individual		Legal Entity	Identifier (LEI)	Registered With		(IMA) Filed
	Depository Number	Barings LLC	Name of Firm or Individual		MMPERQOMXYENC	Identifier (LEI) 08A2G084	Registered With SEC		(IMA) Filed
	Depository Number 106006	Barings LLC IFM Investors P	ty Ltd		MMPERQOMXYENC MMPERQOMXYENC	C8A2G084	SEC SEC		DS NO	
	Depository Number 106006	Barings LLC IFM Investors P irements of the P es for 8 issuers die		of the NAIC Inv	MMPERQOMXYENG MMPERQOMXYENG westment Analy es and Procedu	C8A2G084 C8A2G084 Cysis Office been Cysis Manual. Th	SEC		DS NO	
	Depository Number 106006	Barings LLC IFM Investors P irements of the P es for 8 issuers did ne or more of the	ty Ltd	of the NAIC Inv	MMPERQOMXYENG MMPERQOMXYENG westment Analy es and Procedu	C8A2G084 C8A2G084 Cysis Office been Cysis Manual. Th	SEC		DS NO	
8.2	Depository Number 106006 162754 Have all the filing requ If no, list exceptions: At 3/31/2021, 10 issue issues currently lack o Exceptions Totaled \$3 By self-designating 5G a. Documentation security is not a b. Issuer or obligo	Barings LLC IFM Investors P irrements of the P es for 8 issuers die ne or more of the 61 securities, the r necessary to per available. Ir is current on all	ty Ltd turposes and Procedures Manual of the desired in the filing requirements following: Valid cusip/PPN, audit of all assets eporting entity is certifying the following a full credit analysis of the secontracted interest and principal procedures.	of the NAIC Involved the Purpose ted financials a common determinancial to the property of the NAIC Involved the Purpose the NAIC Involved the Purpose the NAIC Involved the N	MMPERQOMXYENG MMPERQOMXYENG vestment Analy es and Procedu and/or executed s for each self- exist or an NAI	28A2G084	SEC		DS NO	
8.2	Depository Number 106006 162754 Have all the filing requ If no, list exceptions: At 3/31/2021, 10 issue issues currently lack o Exceptions Totaled \$3 By self-designating 5G a. Documentation security is not a b. Issuer or obligo c. The insurer has	Barings LLC IFM Investors P irements of the P es for 8 issuers di ne or more of the 6 securities, the r necessary to per available. r is current on all s an actual expect	ty Ltd	of the NAIC Involved the Purpose ted financials a common department of the purpose of the Purpose ted financials are the purpose of the NAIC Involved the NAIC Involved the Purpose of the NAIC Involved the Purpose of the Purpose of the NAIC Involved the Purpose of the	MMPERQOMXYENG MMPERQOMXYENG vestment Analy es and Procedu and/or executed s for each self- exist or an NAI est and principal	28A2G084	SEC	Yes	(IMA DS NO	
8.2 19.	Depository Number 106006 162754 Have all the filing requ If no, list exceptions: At 3/31/2021, 10 issue issues currently lack o Exceptions Totaled \$3 By self-designating 5G a. Documentation security is not a b. Issuer or obligo c. The insurer has Has the reporting entit By self-designating PL a. The security was b. The reporting er c. The NAIC Desig on a current priv	Barings LLC IFM Investors P irements of the P irements of the P is for 8 issuers diene or more of the resolution	ty Ltd	of the NAIC Involved in the Purpose ted financials a cowing element curity does not coayments. Intracted interesting elements in the property of the property of the property of the NAIC CF or examination	MMPERQOMXYENC MMPERQOMXYENC westment Analy es and Procedund/or executed s for each self- exist or an NAI est and principa ents of each self- eported for the RP in its legal of by state insura	28A2G084	SEC	Yes	(IMA DS NO	No [)
8.2 19.	Depository Number 106006 162754 Have all the filing requ If no, list exceptions: At 3/31/2021, 10 issue issues currently lack o Exceptions Totaled \$3 By self-designating 5G a. Documentation security is not a b. Issuer or obligo c. The insurer has Has the reporting entit By self-designating PL a. The security was b. The reporting er c. The NAIC Desig on a current priv d. The reporting er	Barings LLC IFM Investors P irements of the P irements of the P is for 8 issuers diene or more of the resolution	ty Ltd	of the NAIC Involved in the Purpose ted financials a cowing element curity does not coayments. Contracted interest in the part of the part	MMPERQOMXYENC MMPERQOMXYENC vestment Analy es and Procedund/or executed s for each self- exist or an NAI est and principa nts of each self- eported for the RP in its legal of by state insura ith the SVO.	CSA2G084	SEC	Yes	(IMA DS	No [)
	Depository Number 106006 162754 Have all the filing requ If no, list exceptions: At 3/31/2021, 10 issue issues currently lack o Exceptions Totaled \$3 By self-designating 5G a. Documentation security is not a b. Issuer or obligo c. The insurer has Has the reporting entit By self-designating PL a. The security was b. The reporting er c. The NAIC Desig on a current priv d. The reporting er Has the reporting entit	Barings LLC IFM Investors P irrements of the P irrements of the P is for 8 issuers die ne or more of the	ty Ltd	of the NAIC Involved in the Purpose ted financials a cowing element curity does not coayments. Contracted interest and the purpose in the part of the purpose in the part of the purpose in the purpose i	MMPERQOMXYENG MMPERQOMXYENG vestment Analy es and Procedu and/or executed s for each self- exist or an NAI est and principa ints of each self- exported for the RP in its legal of by state insural ith the SVO.	28A2G084	SEC	Yes	(IMA DS	No [)
19.	Depository Number 106006 162754	Barings LLC IFM Investors P irrements of the P irrements of the P irrements of the P irrements of the P is for 8 issuers die ne or more of the	ty Ltd	of the NAIC Involved in the Purpose ted financials a cowing element curity does not coayments. Contracted interest and NAIC Cfor examination and PL security we contracted interest and the property of the pr	MMPERQOMXYENC MMPERQOMXYENC westment Analy as and Procedund/or executed as for each self- exist or an NAI est and principa that of each self- exist or an its legal of by state insura ith the SVO. rtifying the folio-	28A2G084	SEC	Yes	(IMA DS	No [)
9.	Depository Number 106006 162754 Have all the filing requ If no, list exceptions: At 3/31/2021, 10 issue issues currently lack o Exceptions Totaled \$3 By self-designating 5G a. Documentation security is not a b. Issuer or obligo c. The insurer has Has the reporting entit By self-designating PL a. The security was b. The reporting er c. The NAIC Desig on a current priv d. The reporting er Has the reporting entit By assigning FE to a S FE fund: a. The shares were b. The reporting er c. The security hac January 1, 2019 d. The fund only or e. The current repc in its legal capaci	Barings LLC IFM Investors P irements of the P irements of the P irements of the P is for 8 issuers diene or more of the recessary to per available. It is current on all an actual expect y self-designated GI securities, the securities, the securities, the securities, the securities is purchased prior titty is holding carrent in the purchased prior titty is not permitt y self-designated Expected by the securities of the purchased prior titty is holding carrent in th	ty Ltd	of the NAIC Involved in the Purpose led financials a cowing element curity does not coayments. Intracted interest in the part of the Purpose in the PL security we compare the part of the pa	westment Analy es and Procedund/or executed s for each self- exist or an NAI est and principa est and princi	28A2G084	SEC	Yes	(IMA DS	No [)

GENERAL INTERROGATORIES

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

Life and	d Accident Health Companies/Fraternal Benefit Societies: Report the statement value of mortgage loans at the end of this reporting period for the following categories:	1
	1.1 Long-Term Mortgages In Good Standing	Amount
	1.11 Farm Mortgages	\$
	1.12 Residential Mortgages	\$144,672,032
	1.13 Commercial Mortgages	\$778,662,501
	1.14 Total Mortgages in Good Standing	\$
	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)	\$923,334,533
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 []
Fratern 5.1	al Benefit Societies Only: 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?	
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

SCHEDULE S - CEDED REINSURANCE

Showing All New Reinsurance Treaties - Current Year to Date

1	2	3	4	5	6	7	8	9	10
									Effective
								Certified	Date of
NAIC					Type of	Type of		Reinsurer	Certified
Company	ID	Effective		Domiciliary	Reinsurance	Business		Rating	Reinsurer
Code	Number	Date	Name of Reinsurer	Jurisdiction	Ceded	Ceded	Type of Reinsurer	(1 through 6)	Rating
65935	04-1590850	12/31/2020	Massachusetts Mutual Life Insurance Co. (MM20)	MA	0TH/I	A	Authorized		
74900	63-0483783	01/15/2021	Partner Re (PRK5)	AR	YRT/I	OL	Authorized		
74900	63-0483783	01/15/2021	Partner Re (PRK6)	AR	YRT/I	OL	Authorized		
74900	63-0483783	01/15/2021	Partner Re (PRK7)	AR	YRT/I	OL	Authorized		
97071	13-3126819	01/15/2021	SCOR Global Life USA Reins Co (SUK5)	DE	YRT/I	OL	Authorized		
97071	13-3126819	01/15/2021	SCOR Global Life USA Reins Co (SUK6)	DE	YRT/I	0L	Authorized		
97071	13-3126819	01/15/2021	SCOR Global Life USA Reins Co (SUK7)	DE	YRT/I	OL	Authorized		

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Current Year To Date - Allocated by States and Territories

		unent rear	To Date - Alloca	ited by States a	Direct Bus	iness Only		
		1	Life Co 2	ntracts 3	4 Accident and	5	6	7
			2	3	Health Insurance			
		Activo			Premiums,		Total	
		Active Status	Life Insurance	Annuity	Including Policy, Membership	Other	Total Columns	Deposit-Type
	States, Etc.	(a)	Premiums	Considerations	and Other Fees	Considerations	2 Through 5	Contracts
1. 2.	Alaska	LL	586,238	4, 121,813 1,233,469			4,708,051 1,247,082	
3.	Arizona	L		783.974			1.555.156	
4.	Arkansas	Ĺ	109,617				270,860	
5.	California CA	L	5, 130, 782	17,323,160			22,453,942	
6.	Colorado CO	L	494 , 454	3,988,157			4,482,611	
7.	Connecticut CT	L	1,442,354	3,402,825			4,845,179	
8.	Delaware	L	481,995	2,215,520			2,697,515	
9. 10.	District of Columbia	L	382,036 4,798,733	834,686 10,660,739			1,216,722 15,459,472	
11.	Georgia	L	1,085,826	4,547,656			5,633,482	
12.	Hawaii HI	I	451,097	515,244			966,341	
13.	Idaho ID	L	69,071	750,000			819.071	
14.	IllinoisIL	L	1,255,898	9,536,002			10,791,900	
15.	IndianaIN	L	852,310	3,392,200			4,244,510	
16.	lowa IA	L	265,762	1,891,785			2, 157, 547	
17.	Kansas KS	L	379,547	1,483,241			1,862,788	
18.	Kentucky KY	L	275,294	851,783			1,127,077	
19. 20.	LA Maine ME		310,110	6,278,122			6,588,232	
20.	Maryland MD	L	85,921 1,939,225	396,612 3,512,346			482,533 5.451.571	
22.	Massachusetts MA	L					, , , , , , , , , , , , , , , , , , , ,	
23.	Michigan MI	L	1,038,347	8,426,903			9,465,250	
24.	Minnesota MN	L	1,471,399	3,568,692			5,040,091	
25.	Mississippi MS	L	545,862	1,278,645			1,824,507	
26.	Missouri MO	L		3,482,318				
27.	Montana MT	L	90,432	353,969			444,401	
28. 29.	Nebraska	LL	180,273	528,551 168,592			708,824 477,709	
30.	New Hampshire	L	309, 117	168,592			477,709	
31.	New Jersey	L	2,991,380	14,385,770			17,377,150	
32.	New Mexico	L	79,731	949,767			1,029,498	
33.	New York	N	1,580,734	14,954			1,595,688	
34.	North CarolinaNC	L	1,667,108	6,005,358			7,672,466	
35.	North DakotaND	L	6,941	1,768,419			1,775,360	
36.	Ohio OH	L	1,215,861	7,640,253			8,856,114	
37.	Oklahoma OK	<u>F</u>	404,091	1,343,237			1,747,328	
38. 39.	Oregon OR	L	227,734	893,683 26,796,501			1,121,417	
39. 40.	Pennsylvania PA Rhode Island RI	L L	2,355,931 118,591	2,088,594			29, 152, 432 2, 207, 185	
41.	South Carolina SC	L	728,569	2.952.070			3,680,639	
42.	South Dakota SD	L	20,988	187,372			208,360	
43.	Tennessee	L	892,074	5,477,806				
44.	Texas TX	L	3,769,704	11,959,135			15,728,839	
	Utah UT	L	354,940	404,963			759,903	
46.	Vermont VT	L	134,044	1,059,951			1, 193, 995	
47.	VirginiaVA		1,258,301	10,814,399			12,072,700	
48. 49.	Washington WA West Virginia WV	L	682,033 156,469	1,933,782 765,278			2,615,815 921,747	
50.	Wisconsin WI	L	494,033	3,681,623			4, 175, 656	
51.	Wyoming WY		31,242	14,200			45,442	
52.	American Samoa AS	N.	01,212					
53.	Guam GU	N						
54.	Puerto RicoPR	L	886,022	517,422			1,403,444	
55.	U.S. Virgin Islands VI	N	185				185	
56.	Northern Mariana Islands MP	N	0.050				0.050	
57.	Canada	N	3,058				3,058	
58. 59.	Aggregate Other Aliens OT Subtotal	XXX	12,415 46.910.977	209,785,870			12,415	
90.	Reporting entity contributions for employee benefits						200,000,04/	
	plans	XXX						
91.	Dividends or refunds applied to purchase paid-up	XXX						
92.	additions and annuities Dividends or refunds applied to shorten endowmen		<u> </u>					
	or premium paying period	XXX						
93.	Premium or annuity considerations waived under	1001	011 751				011 751	
94.	disability or other contract provisions	XXXXXX	311,751				311,751	
9 4 . 95.	Totals (Direct Business)	XXX	47.222.728	209,785,870			257.008.598	
96.	Plus Reinsurance Assumed	XXX	41,222,120	209,765,670			237,006,396	
97	Totals (All Business)	XXX	47,222,728	209,785,870			257,008,598	
98.	Less Reinsurance Ceded	XXX	30,965,353	142,316,612			173,281,965	
99.	Totals (All Business) less Reinsurance Ceded	XXX	16,257,375	67,469,258			83,726,633	
	DETAILS OF WRITE-INS							
	ZZZ Other Alien	XXX	12,415				12,415	
58002.		XXX	·	.				
58003. 58998.	Summary of remaining write-ins for Line 58 from	XXX	·					
50980.	overflow page	XXX						
58999.	Totals (Lines 58001 through 58003 plus							
0404	58998)(Line 58 above)	XXX	12,415				12,415	
9401. 9402.		XXX	·	.				
9402. 9403.		XXX	<u> </u>					
	Summary of remaining write-ins for Line 94 from						•	
	overflow page	XXX						
9499.	Totals (Lines 9401 through 9403 plus 9498)(Line	1001						
(2) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	94 above) e Status Counts:	XXX	<u> </u>		I			
	e Status Courits. ensed or Chartered - Licensed Insurance carrier				- Registered - No			

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

PART 1 – ORGANIZATIONAL CHART

Federal Tax ID NAIC Co Code State of Domicile

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

MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY	04-1590850	65935	Massachusetts
Direct & Indirect Owned Subsidiaries:	0.1250050	00,00	TTTT STATE TO STATE STAT
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
MassMutual Global Business Services Romania S.R.L.	None		Romania
MM Global Capabilities I I LLC	None		Delaware
MM Global Capabilities I II LLC	None		Delaware
MM/Barings Multifamily TEBS 2020 LLC	None		Delaware
Barings Ascend 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 Private Equity Funds LLC	04-1590850		Delaware
MassMutual Intellectual Property LLC Trad Investments I LLC	04-1590850 None		Delaware Delaware
			Delaware Delaware
EM Opportunities LLC MassMutual MCAM Insurance Company, Inc.	None None		Vermont
Masswitter MCAM insurance Company, inc. Jefferies Finance LLC	27-0105644		Delaware
APEX Credit Partners LLC	27-0103044 None		Delaware
Afficient Authors ELC Jefferies 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 Fund VI LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware

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

Federal Tax ID NAIC Co Code State of Domicile

JFAM GP LLC	None	Delaware
JF AM 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
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, S.L.P.	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 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 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 CLO 2020 Ltd.	None	Cayman Islands
JFIN Revolver CLO 2021-II Ltd.	None	Cayman Islands
JFIN Revolver Fund, L.P.	None	Delaware
JFIN Revolver Funding 2021 Ltd.	None	Delaware
Apex Credit CLO 2015-II Ltd.*	None	Cayman Islands
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
Glidepath Holdings Inc.	None	Delaware
MassMutual Mortgage Lending LLC	None	Delaware
MM Copper Hill Road LLC	04-1590850	Delaware
MM Investment Holding	None	Cayman Islands
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

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

PART 1 – ORGANIZATIONAL CHART

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
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 Management Corporation	04-2443240	Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444	Massachusetts
MassMutual Holding MSC, Inc.	04-3341767	Massachusetts
MML CM LLC	None	Delaware
Blueprint Income LLC	None	New York
Flourish Financial LLC	None	Delawarwe
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
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
Fem 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
Athens Fund Management 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
MassMutual Ventures US III LLC	None	Delaware
Open Alternatives LLC	None	Delaware
MM Catalyst Fund LLC	None	Delaware
MM Rothesay Holdco US LLC	04-1590850	Delaware

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

PART 1 – ORGANIZATIONAL CHART

Rothesay Limited	None	United Kingdom
Rothesay Life Plc	None	United Kingdom
Rothesay Assurance Limited	None	United Kingdom
Rothesay MA No.1 Limited	None	United Kingdom
Rothesay MA No.2 Limited	None	United Kingdom
Rothesay MA No.3 Limited	None	United Kingdom
Rothesay MA No.4 Limited	None	United Kingdom
LT Mortgage Finance Limited	None	United Kingdom
Rothesay Property Partnership 1 LLP	None	United Kingdom
Rothesay Foundation	None	United Kingdom
Rothesay Pensions Management Limited	None	United Kingdom
Rothesay Asset Management UK Limited	None	United Kingdom
Rothesay Asset Management US LLC	None	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 Singapore Pte. Ltd.	None	Singapore
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
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

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

PART 1 – ORGANIZATIONAL CHART

D' Mai i DW	N.	N. d. 1 . 1
Barings Netherlands B.V. Barings Real Estate UK Holdings Limited	None None	Netherlands Delaware
BREAE AIFM LLP	None	United Kingdom
Barings Real Estate Advisers (Continental Europe) Limited	98-0654401	United Kingdom
Barings Real Estate Advisers Europe LLP Barings Real Estate Advisers Europe Finance LLP	98-0654388 98-0654412	United Kingdom United Kingdom
Barings Real Estate GmbH	98-1194368 98-0241935	Germany
Baring Asset Management Limited		United Kingdom United Kingdom
Barings European Direct Lending 1 GP LLP Barings Global Advisors Limited	None 98-1012393	United Kingdom
Baring International Investment Limited Baring International Investment Management Holdings	98-0457328 98-0457587	United Kingdom United Kingdom
Baring Asset Management UK Holdings Limited	98-0457576	United Kingdom
Baring Asset Management OK Holdings Limited Baring Asset Management GmbH	98-0457576 98-0465031	
Baring Asset Management Gmori Baring International Fund Managers (Ireland) Limited	98-0524272	Germany Ireland
Baring Asset Management Switzerland Sårl	98-0324272 None	Switzerland
Baring France SAS	98-0497550	France
Baring Fund Managers Limited	98-0497330	United Kingdom
BCGSS 2 GP LLP	None	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.àr.1.	None	Luxembourg
Barings BME GP S.à.r.l.	None	United Kingdom
Barings GPC GP S.à.r.1.	None	Luxembourg
Barings European Core Property Fund GP Sà.r.1	None	United Kingdom
Barings Umbrella Fund (LUX) GP S.à.r.1.	None	Luxembourg
GPLF4(S) GP S.år.l	None	Luxembourg
PREIF Holdings Limited Partnership	None	United Kingdom
Almack Holding Partnership GP Limited	None	United Kingdom
Almack Mezzanine Fund Limited	None	United Kingdom
Almack Mezzanine Fund II Limited	None	United Kingdom
Barings (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

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

	Federal Tax ID	NAIC Co Code	State of Domicile
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
Tamiami Citrus, LLC	None		Delaware
Teaktree Acquisition, LLC	None		Delaware
Techquity, LP	None		Delaware
Validus Holding Company LLC	46-0687392		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
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 Emerging Generation Fund LP	84-3784245		Delaware
Barings Global Energy Infrastructure Advisors, LLC	None		Delaware
Barings Global Real Assets Fund GP, LLC	None		Delaware
Barings GPSF	None		Delaware
Barings North American Private Loan Fund Management, LLC	None		Delaware
Barings North American Private Loan Fund Management II, LLC	None		Delaware
Barings/LAZ Parking Fund GP LLC	None		Delaware
Barings Small Business Fund LLC	84-5063008		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
CREF X GP LLC	None		Delaware
Great Lakes III GP, LLC	04-1590850		Delaware
Lake Jackson LLC	None		Delaware

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

	Federal Tax ID	NAIC Co Code	State of Domicile
Loan Strategies Management LLC	04-1590850		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
Amherst Long Term Holdings, LLC	None		Delaware
MassMutual İnternational LİC	04-3313782		Delaware
MassMutual Solutions LLC	None		Delaware
Haven Technologies Asia Limited	None		Hong Kong
Yunfeng Financial Group Limited	None		Hong Kong
MassMutual Asia Limited (SPV)	None		Hong Kong
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 ILP*	None		United Kingdom
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Barings Affordable Housing Mongage Fund LLLC	82-3468147		Delaware
Barings Affordable Housing Mortgage Fund II LLC	61-1902329		Delaware
Barings Affordable Housing Mortgage Fund III LLC	85-3036663		Delaware
Barings Asset-Based Income Fund (US) LP	36-4868350		Delaware
Barings Emerging Markets Comporate Bond Fund	None		Ireland
Barings European Real Estate Debt Income Fund	None		Luxembourg
Babson Capital Global Special Situation Credit Fund 2*	98-1206017 37-1506417		Delaware Delaware
Babson Capital Loan Strategies Fund, L.P.*			
Barings US High Yield Bond Fund* Babson CLO Ltd. 2012-II	None None		Ireland
			Cayman Islands
Babson CLO Ltd. 2013-I Babson CLO Ltd. 2014-I	None None		Cayman Islands Cayman Islands
Babson CLO Ltd. 2015-I Babson CLO Ltd. 2015-II	None None		Cayman Islands Cayman Islands
Babson CLO Ltd. 2015-11 Babson CLO Ltd. 2016-1			Cayman Islands
Babson CLO Ltd. 2016-I Babson CLO Ltd. 2016-II	None None		Cayman Islands Cayman Islands
Babson CLO Ltd. 2016-11 Barings CLO Ltd. 2017-1	None		Cayman Islands Cayman Islands
Darnigs CLO Ltd. 2017-1	None		Cayman islands

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

	Federal Tax ID	NAIC Co Code	State of Domicile
Barings CLO 2018-III	None		Cayman Islands
Barings CLO 2018-IV	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
Barings CLO 2020-I	None		Cayman Islands
Barings CLO 2020-II	None		Cayman Islands
Barings CLO 2020-III	None		Cayman Islands
Barings CLO 2020-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 2019-1	3603726OH		Ireland
Barings Euro CLO 2019-II	None		Ireland
Barings Euro CLO 2020-I DAC	None 82-5330194		Ireland
Barings Global Em. Markets Equity Fund Barings Global Energy Infrastructure Fund I LP	82-5330194 98-1332384		North Carolina Cayman Islands
Barings Groota Energy Intrastructure Fund LEF Barings Global Inv. Grade Strat Fund	None		Ireland
Barings Global Private Loan Fund 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 Global Special Situations Credit 4 Delaware*	85-1465973		Delaware
Barings Global Special Situations Credit 4 LUX*	98-1570693		Luxembourg
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
Barings CLO Investment Partners LP	81-0841854		Delaware
Barings Real Estate European Value Add I SCSp*	None		United Kingdom
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

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PART 1 – ORGANIZATIONAL CHART

Cornerstone Permanent Mortgage Fund IV LLC	61-1793735	Massachusetts
GASL Holdings, LLC	82-2932156	Delaware
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
NYDIG Digital Assets Fund II LP	85-3886824	Delaware
HB Naples Golf Owner LLC	45-3623262	Delaware
MM CM Holding LLC	None	Delaware
MM Debt Participations LLC	81-3000420	Delaware
RB Apartments LLC	82-4411267	Delaware
Reston Arboretum LLC	75-2901061	Delaware
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 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
Barings China Aggregate Bond Private Securities Investment Fund	None	Peoples Republic of China
Barings Global High Yield Fund	47-3790192	Massachusetts
Barings Total Return Bond Fund	47-3734770	Massachusetts
Great Lakes II LLC*	71-1018134	Delaware
Wood Creek Venture Fund LLC	04-1590850	Delaware
Barings Real Estate Affiliates & Funds:		
50 Liberty LLC*	36-4823011	Delaware
Barings California Mortgage Fund IV	None	California
Barings Umbrella Fund LUX SCSp SICAV RAIF*	None	Luxembourg
Calgary Railway Holding LLC*	82-2285211	Delaware

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

	Federal Tax ID	NAIC Co Code	State of Domicile
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
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
One Harbor Shore LLC*	80-0948028		Delaware
PACO France Logistics 2 LLC	04-1590850		Delaware
Portland 400 Sixth Manager LLC	82-3393166		Delaware
Raleigh Crossing Phase I Holdings LLC	None		Delaware
Salomon Brothers Commercial Mortgage Trust 2001-MM	None		Delaware
Sawgrass Village Shopping Center LLC*	27-2977720		Delaware
STOA Holding LLC	None		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
MassMutual Premier Funds:	45.24.60002		
MassMutual Barings Dynamic Allocation Fund	45-3168892		Massachusetts
MassMutual Premier Focused International Fund MassMutual Premier Main Street Fund	02-0754273		Massachusetts Massachusetts
	51-0529328		
MassMutual Premier Strategic Emerging Markets Fund MassMutual Premier Value Fund	26-3229251 04-3277550		Massachusetts Massachusetts
MassMutual Select Funds:	04-32//330		Massachusetts
MassMutual Select Funds: MassMutual Select Diversified International Fund	14-1980900		Massachusetts
wassivutual Select Diversified Value Fund MassMutual Select Diversified Value Fund	01-0821120		Massachusetts
MassMutual Select Diversing Value Fund MassMutual Select Fundamental Growth Fund	01-0821120		Massachusetts
MassMutual Select Large Cap Value Fund MassMutual Select Large Cap Value Fund	04-3312393		Massachusetts
маssMutual Select Mid-Cap Value Fund MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select Mite-Cap Vatter Fund MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Cappiar Value Equity Fund MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MassMutual Select T. Rowe Price Retirement 2005 Fund	82-3347422		Massachusetts
Massivilitian Select 1. Nower the retriented 2003 Fund	02-334/422		iviassaciiusetts

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

	Federal Tax ID	NAIC Co Code	State of Domicile
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 2015 Fund	27-1933828		Massachusetts
MassMutual RetireSMART 2035 Fund	27-1933380		Massachusetts
MassMutual RetireSMART 2045 Fund	27-1932769		Massachusetts
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 Sch Y Part 1A for the ownership and percentage information.

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

PART 1 – ORGANIZATIONAL CHART

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

SCHEDULE Y

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0435	CM Life Ins Co	93432	06-1041383				C.M. Life Insurance Company	CT	RF	Company	Ownership.	100.000	MMLIC		
0435	MML Baystate Life Ins Co	70416	43-0581430				MML Bay State Life Insurance Company	CT DE	IA.	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
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0000							MM Global Capabilities II LLC	DE	DS	Company	Ownership	100.000	MMLIC		
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0000							MML Special Situations Investor LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
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0000			04-1590850 04-1590850				Insurance Road LLC	DE	NIA	Company	Ownership	100.000			·
							MassMutual Trad Private Equity LLC	DE	NIA	Insurance Road LLC	Ownership			.	
0000			04-1590850 04-1590850				MassMutual Private Equity Funds LLC	DE	NIA	MassMutual Trad Private Equity LLC	. Ownership	100.000	MMLIC		
			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			07.0405043		I		1.77 : 5: 110	DE		Massachusetts Mutual Life Insurance		50.000	144 10		
0000			27-0105644				Jefferies Finance LLC	DE	NIA	Company	Ownership	50.000	MMLIC		1
0000			1		1			DE		Massachusetts Mutual Life Insurance		400 000	144 10		
0000							Glidepath Holdings Inc.	DE	NI A	Company	Ownership	100.000	MMLIC		
1										Massachusetts Mutual Life Insurance	l		l		
0000							MassMutual Mortgage Lending LLC	DE	NIA	Company	Ownership	100.000			

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											Type				
											of Control	Control			
											(Ownership,	is		Is an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Croup		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	,
Group	Craun Nama			RSSD	CIK	International)	Or Affiliates				Other)			(Y/N)	*
Code	Group Name	Code	Number	RSSD	CIK	international)		tion	Entity	(Name of Entity/Person)	,	tage	Entity(ies)/Person(s)	(Y/N)	
0000							Apex Credit Partners LLC	DE	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							Jefferies Credit Partners LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Jefferies Credit Management LLC	DE	NIA	Jefferies Credit Partners 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	MD	NIA	Jefferies Private Credit GP LLC	Ownership	100.000	MMLIC		
0000							Jefferies Private Credit BDC Inc.	DE	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 Fund VI 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	.	
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	NI A	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	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Co-Issuer Corporation	LUX	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000						l	JFIN Europe GP, S.a.r.I.	LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Jefferies Finance Europe, S.L.P.	LUX	NIA	JFIN Europe GP, S.a.r.I.	Ownership.	100.000	MMLIC		
0000							Jefferies Finance Europe, SCSp	DE	NIA	JFIN Europe GP. S.a.r.I.	Ownership.	100.000	MMLIC		
0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership.	100,000	MMLIC		
.0000							JFIN Business Credit Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		1
0000							JFIN High Yield Investments LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
.0000							JFIN LC Fund LLC	CYM	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							JFIN CLO 2012 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2013 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							JFIN CLO 2014-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2015 Ltd.	CYM	NIA	Jefferies Finance LLC	Owner ship.	44.000	MMLIC		
0000							JFIN CLO 2015 Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership.	56.000	MMLIC		
0000							JFIN Revolver CLO 2014 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							JFIN Revolver CLO 2014 Ltd.	CYM	NIA	Jefferies Finance LLC	Owner ship.	100.000	MMLIC		
0000							JFIN Revolver CLO 2017 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
													MMLIC		
0000							JFIN Revolver CLO 2017-III Ltd.		NIA	Jefferies Finance LLC	Ownership	100.000			
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							JFIN Revolver CLO 2020 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC	.	·
							JFIN Revolver CLO 2021-II Ltd.	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver Fund, L.P.	DE	NI A	Jefferies Finance LLC	Ownership	90.000	MMLIC	.	
0000							JFIN Revolver Funding 2021 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	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							Apex Credit CLO 2016 Ltd.	CYM	NI A	Jefferies Finance LLC	Owner ship	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	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC	.	
										Massachusetts Mutual Life Insurance					
0000			04-1590850				MM Copper Hill Road LLC	CYM	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000							MM Investment Holding	DE	NIA	Company	Ownership	100.000	MMLIC	.	
0000			26-0073611				MassMutual Asset Finance LLC	DE	NIA	MM Investment Holding	Ownership.	99.600	MMLIC		. [
0000			26-0073611				MassMutual Asset Finance LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	0.400	MMLIC		1
0000			90-1005837				MMAF Equipment Finance LLC 2013-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
0000			36-4785301				MMAF Equipment Finance LLC 2013-A	DE	NIA	MassMutual Asset Finance LLC	Owner ship	100.000	MMI IC		
0000			JU-4/000U1				minni Lyurphietti Fittanice LLC 2014-A	UE	NIA	massmutual Asset Fillance LLC	owner on the		IMMLIV		

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											(Ownership,	is		Is an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence.	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000			38-3969560				MMAF Equipment Finance LLC 2015-A	DE	NIA	MassMutual Asset Finance LLC	Ownership.	100.000	MMLIC		
0000			32-0489588				MMAF Equipment Finance LLC 2016-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
0000			35-2590691				MMAF Equipment Finance LLC 2017-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
0000			. 32-0546197				MMAF Equipment Finance LLC 2017-B	DE	NIA	MassMutual Asset Finance LLC	Owner ship	100.000	MMLIC		
0000			82-5335801				MMAF Equipment Finance LLC 2018-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
0000			83-3722640				MMAF Equipment Finance LLC 2019-A	DE	NIA	MassMutual Asset Finance LLC	Owner ship	100.000	MMLIC		
0000							MMAF Equipment Finance LLC 2019-B	DE	NIA NIA	MassMutual Asset Finance LLC MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
0000			04-2443240				MML Management Corporation	MA	NIA	MM Investment Holding	Ownership	100.000	MMLIC	···· v	
0000			04-2443240	1			MassMutual International Holding MSC, Inc	MA	NIA	MML Management Corporation	Owner ship.	100.000	MMLIC		1
0000			04-3341767	1			MassMutual Holding MSC. Inc.	DE	NIA	MML Management Corporation	Ownership	100.000	MMLIC		
		1		1						Massachusetts Mutual Life Insurance	/ // =p		1		T
0000		l	 	. [MML CM LLC	NY	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Blueprint Income LLC	DE	NIA	Company	Owner ship	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Flourish Financial LLC	MA	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 04-3356880 04-3356880				MML Distributors LLC	MA DE	NIA NIA	Company	Ownership	99.000	MMLIC		
			. 04-3336880				MML DISTRIBUTORS LLC	VE	NIA	Massachusetts Mutual Life Insurance	. Ownersnip	1.000	. MWLIC		
0000							MML Investment Advisers, LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
							IIIIL HIVOSTIIGHT AGVISCIS, ELO			Massachusetts Mutual Life Insurance	owner strip.		I WALLO		
0000			46-3238013				MML Strategic Distributors, LLC	CT	NIA	Company	Ownership.	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			06-1563535	. 2881445			The MassMutual Trust Company, FSB	DE	NIA	Company	Ownership	100.000	MMLIC	Y	
							MML Private Placement Investment Company I,			Massachusetts Mutual Life Insurance					
0000			04-1590850				LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			04 4500050				MM D : 4 5 :4 5 11 4 110	DE		Massachusetts Mutual Life Insurance		400.000	188.10		
0000			. 04-1590850 04-1590850				MML Private Equity Fund Investor LLC MML Private Equity Fund Investor LLC	DE	NIANIA	Company	Ownership	100.000	MMLIC		
0000			04-1590850				MM Private Equity Fund Investor LLC	DE	NIA	MML Private Equity Fund Investor LLC	Ownership	100.000	MMLIC		
			. 04-1330030				mm I I I vate Equity intercontinental EEC			Massachusetts Mutual Life Insurance	owner strip	100.000	WWLTO		
0000			45-2738137				Pioneers Gate LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-2854319	2392316			MassMutual Holding LLC	NC	NIA	Company	Ownership	100.000	MMLIC	Y	
0000			. 06-1597528				MassMutual Assignment Company	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			. 37-1732913	-			Fern Street LLC	DE	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000							Sleeper Street LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		·
0000			46-2252944	-			Haven Life Insurance Agency, LLC	DE	NIA NIA	MassMutual Holding LLC	Owner ship	100.000	MMLIC		·
0000			. 04–1590850	1			MassMutual Capital Partners LLC	DE	NIA	MassMutual Holding LLC MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000							Athens Fund Management LLC	DE	NIA	MassMutual Holding LLC	Ownership.	100.000	MMLIC		1
0000							Crane Venture Partners LLP	DE	NIA	MassMutual Ventures Holding LLC	Owner ship.	33.000	MMLIC		
0000				1			MassMutual Ventures Management LLC	DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
[MassMutual Ventures SEA Management Private			,					
0000							Limited	DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
0000							MassMutual Ventures Southeast Asia I LLC	DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		.
0000							MassMutual Ventures Southeast Asia II LLC	DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
0000							MassMutual Ventures UK LLC	DE	NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		·
0000			47-1296410				MassMutual Ventures US I LLC		NIA	MassMutual Ventures Holding LLC	Owner ship	100.000	MMLIC		
0000							MassMutual Ventures US II LLC	DE	NIA NIA	MassMutual Ventures Holding LLC	Ownership	100.000	MMLIC		
0000							Open Alternatives LLC	DE	NIA	MassMutual Ventures Holding LLC	Ownership.	100.000	MMLIC		
							Tohen vitelijatikes Pro	. VE		I massmutuat ventures notuing LLC	. Lowing 1911h	100.000	WIWILI V		

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100 100	Group		Company	ID	Federal		(U.Ś. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Processor Proc	Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates			(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
							,			,	Massachusetts Mutual Life Insurance	<i>'</i>			` ′	
	0000			04-1590850				MM Rothesay Holdco US LLC	GBR	NIA		Owner ship	100.000	MMLIC		
Solitors for the 1 Initiation Solitors									GBR		MM Rothesay Holdco US LLC	Owner ship				
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1 For Flags Flance Little 59R N.A. Scheau Little 00 cornelly 00.00 0									GBR							
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												Ownership				
Barring Asset Management (Asia) Noticings BML NIA Barring NUC Denorabin 100,000 ML C									DE							
	0000			51-0504477					HKG	NIA	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
Dool																
	0000			98-05242/1					BMU	NIA		Ownership	100.000	MMLIC		
Baring Asset Management (Asia) Holdings September Asia Holdings September Asia Holdings September Asia Holdings September Asia Holdings September 0000			00 0457465					HIVO	NII A		O-manah i-	100,000	MAR IC			
	0000			90-0437403				Limited	nru	NIA		owner snrp	100.000	. MWLIC		
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Limited Barings Oversease Investment Fund Management (Asia) Limited Onership. 100,000 MALIC											Darring Acces management (Acra) Erim tea	owner on p		macro		
	0000								HKG	NIA	Baring Asset Management (Asia) Limited	Owner ship.	100.000	MMLIC		l
Description Description								Barings Overseas Investment Fund Management								
Description	0000							(Shanghai) Limited	TWN	NIA		Ownership	100.000	MMLIC		
Barings Singapore Pte. Ltd. LPN Barings Singapore Pte. Ltd. LPN NIA Limited Dunership. 100.000 MM_LC																
Barings Singapore Pte. Ltd. JPN NIA Linited Ounership 100.000 ML C	0000			98-0457707				Baring SICE (Taiwan) Limited	SGP	NIA		Ownership	100.000	MMLIC		
Baring Saset Management (Asia) Holdings Dunership																
Description Description	0000							Barings Singapore Pte. Ltd.	JPN	NIA		Ownership	100.000	MMLIC		
Baring Sustralia Holding Company Pty Ltd AUS Baring Asset Management (Asia) Holdings Description Descrip	0000			00 0006440				Parings Japan Limited	ALIC	NIA		Ownership	100,000	MM IC		
D000	0000			30-0230449				Dai mys Japan Limiteu	6UA	NIA		Owner Siftp	100.000	NIVIL I C	-	
Description	0000							Barings Australia Holding Company Pty Ltd	ALIS	NΙΔ		Ownership	100,000	MMLIC		
Barings Finance LLC Section Barings Finance LLC Section				98-0457456												
DEC DEC																
Description Description										NIA	Barings Finance LLC					
0000 04-3238351 06-3238351 06-3238351 06-3238351 07-323835	0000									NIA		Ownership.	100.000	MMLIC		
0000 04-3238351 Barings Securities LLC									1							
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0000 Barings Europe Limited ESP. NIA Barings Guernsey Limited Ownership. 100.000 MMLIC									GGY							
.0000 Barings Asset Management Spain SL JTA. NIA. Barings Europe Limited Ownership. 100.000 MMLIC .0000 Barings Italy S.r.I. SWE NIA. Barings Europe Limited Ownership. 100.000 MMLIC .0000 Barings Sweden AB FIN NIA Barings Europe Limited Ownership. 100.000 MMLIC				98-0437588												
.0000 Barings Italy S.r.I SWE NIA Barings Europe Limited Ownership 100.000 MMLIC .0000 Barings Sweden AB FIN NIA Barings Europe Limited Ownership 100.000 MMLIC															-	
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						Exchange		Domi-	ship		Management,	ship		Filina	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	•
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000							Barings Netherlands B.V.	DE	NIA	Barings Europe Limited	Ownership.	100.000	MMLIC		
0000							Barings Real Estate UK Holdings Limited	GBR	NIA	Barings Europe Limited	Ownership	100.000	. MMLIC		
0000							BREAE AIFM LLP	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	. MMLIC		
							Barings Real Estate Advisers (Continental								
0000			. 98-0654401				Europe) Limited	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	. MMLIC		
0000			. 98-0654388				Barings Real Estate Advisers Europe LLP Barings Real Estate Advisers Europe Finance	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	. MMLIC		
0000			98-0654412				LLP	DEU	NIA	Barings Real Estate UK Holdings Limited	Ownership.	100.000	MMLIC		
0000			98-1194368				Barings Real Estate GmbH	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
0000			98-0241935				Baring Asset Management Limited	GBR	NIA	MassMutual Holdings (Bermuda) Limited	Ownership.	100.000	MMLIC		
0000							Barings European Direct Lending 1 GP LLP	GBR	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000			. 98-1012393				Barings Global Advisors Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000			. 98-0457328				Baring International Investment Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
							Baring International Investment Management								
0000			. 98-0457587				Holdings	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000			00 0457570				D : A A H A H A H H H H H H H H H H H H H	DEII	NII 4	Baring International Investment Management		100 000	188 10		
0000			. 98-0457576				Baring Asset Management UK Holdings Limited .	DEU	NIA	HoldingsBaring Asset Management UK Holdings Limited	Owner ship	100.000	. MMLIC		
0000			. 98-0465031				Baring Asset Management GmbH	IRL	NI A	baring Asset Management OK Hordings Limited	Ownership	100.000	MMLIC		
0000			. 30-0403031				Baring International Fund Managers (Ireland)	InL	NIA	Baring Asset Management UK Holdings Limited	4	100.000	. WIVILIO		
0000			98-0524272				Limited	CHE	NIA	Darring Asset management on norumgs Emilited	Ownership	100.000	MMLIC		
			00 0021272							Baring Asset Management UK Holdings Limited	d		mile 10		
0000							Baring Asset Management Switzerland Sarl	FRA	NIA		Ownership	100.000	. MMLIC		
										Baring Asset Management UK Holdings Limited	d ·				
0000			. 98-0497550				Baring France SAS	GBR	NIA		Ownership	100.000	. MMLIC		
0000			. 98-0457586				Baring Fund Managers Limited		NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000							BCGSS 2 GP LLP	GBR	NIA	Baring Fund Managers Limited	Ownership	100.000	. MMLIC		
0000			. 98-0457574				Baring Pension Trustees Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000			. 98-0457578				Baring Investment Services Limited	LUX	NIA	Baring Asset Management Limited Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000							Barings Core Fund Feeder GP S.à.r.l. Barings BME GP S.à.r.l.	. LUX	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000							Barings GPC GP S.à. r.l .		NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000							Barings European Core Property Fund GP Sàrl	LUX	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000							Barings Investment Fund (LUX) GP S.à. r.I.	LUX	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000							Barings Umbrella Fund (LUX) GP S.à.r.I.	LUX	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000							GPLF4(S) GP S.à r.l	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000							PREIF Holdings Limited Partnership	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000		-					Almack Mezzanine Fund II Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000			. 98-0432153				Barings (U.K.) Limited	DE	NIA	Barings Guernsey Limited	Ownership	100.000	. MMLIC		
0000		-	-				Barings Multifamily Capital Holdings LLC	MI DE	NIA NIA	Barings LLC	Ownership	100.000	. MMLIC		
0000							Barings Multifamily Capital LLC Barings Multifamily Capital Corporation	CA	NIA NIA	Barings LLC	Ownership	100.000	. MMLIC		
0000			04-3238351	3456895			Barings Real Estate Advisers Inc.	DE	NIA	Barings Real Estate Advisers LLC	Ownership.	100.000	MMLIC		
			. 04 0200001	0400000			but mgs hear Estate Advisers me.	UL		Massachusetts Mutual Life Insurance	omici sirip.		MMLIO		
0000		.]	81-2244465	l			Chassis Acquisition Holding LLC	DE	NIA	Company	Ownership/Influence	30.000	MMLIC		
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NIA	Barings LLC	Influence.		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 81–4258759				CRA Aircraft Holding LLC	DE	NIA	Company	Ownership/Influence	40.000	MMLIC		
0000			. 81–4258759				CRA Aircraft Holding LLC	DE	NIA	Barings LLC	Influence		. MMLIC		
l		1								Massachusetts Mutual Life Insurance	L				
0000			. 83-0560183				Aland Royalty Holdings LP	DE	NIA	Company	Ownership	26.700	MMLIC		
0000		-	. 83-0560183				Aland Royalty Holdings LP	CYM	NIA	Barings LLC	. Management	 -	. MMLIC		
0000		I					ASM SIP. LP	CYM	NII A	Massachusetts Mutual Life Insurance	O-manahi -	12 200	MMLIC	1	
0000							HOM OIP, LP	VYM	NIA	Company	Ownership	13.200	MIVIL 1 U		

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						Name of Securities			Relation-		Board,	Owner-		SCA	,
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			ı.			if Publicly Traded			to	Discoult Controlled to	Attorney-in-Fact,		1.000		1
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	'
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000							ASM SIP, LP	DE	NIA	Barings LLC	Influence		MMLIC		.
										Massachusetts Mutual Life Insurance					1
0000			46-2344300				Intermodal Holdings II LLC	DE	NIA	Company	Ownership	18.000	. MMLIC		.
0000			47-3055009				Milestone Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	19.700	MMLIC		.
0000			47-3055009				Milestone Acquisition Holding, LLC.	MD	NIA	Barings LLC	Influence		MMLIC		.
										Massachusetts Mutual Life Insurance					,
0000							Novation Companies, Inc.	DE	NIA	Company	Ownership	17.100	MMLIC		.
										Massachusetts Mutual Life Insurance					1
0000			46-5460309				Red Lake Ventures, LLC	DE	NIA	Company	Ownership/Influence	31.500	MMLIC		.
0000			46-5460309				Red Lake Ventures, LLC	CT	NIA	Barings LLC	Influence		MMLIC		.
1										Massachusetts Mutual Life Insurance					'
0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	Company	. Ownership/Influence	66.300	MMLIC		
0000			81-4065378				Remington L & W Holdings LLC	DE	NIA	Barings LLC	Influence		MMLIC		.
			Ì							Massachusetts Mutual Life Insurance					1 '
0000		.					Tamiami Citurus, LLC	DE	NIA	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		. !
										Massachusetts Mutual Life Insurance					,
0000							Techquity, LP	DE	NIA	Company	. Ownership	15.600	. MMLIC		. '
0000							Techquity, LP	DE	NIA	Barings LLC	Influence.		MMLIC		.
0000			46-0687392				Validus Holdings Company LLC	DE	NI A	Barings LLC	Ownership	40.400	MMLIC		. !
							. ,			Massachusetts Mutual Life Insurance	·				1
0000							Validus Pharmaceuticals LLC	DE	NI A	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						l	Aland Royalty GP, LLC	DE	NIA	Barings LLC	Owner ship	100.000	MMLIC		. '
0000						l	Alaska Future Fund GP, LLC	DE	NIA	Barings LLC	Owner ship	100.000	MMLIC		. '
0000						l	BAI GP, LLC	DE	NIA	Barings LLC	Owner ship.	100.000	MMLIC		. '
0000							BAI Funds SLP, LLC	DE	NI A	Barings LLC	Owner ship.	100.000	MMLIC		. !
0000							Baring Asset-Based Income Fund (US) GP, LLC .	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		
0000							Barings Investment Series LLC	MD	NIA	Barings LLC	Ownership	100.000	MMLIC		ļ,
0000							Barings Capital Investment LLC	DE	NIA	Barings LLC	Ownership	100,000	MMLIC		
0000							Barings Emerging Generation Fund GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		<u> </u>
							Barings Global Investment Funds (U.S.)			, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,				
0000			04-1590850				Management LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		.l'
.0000							Barings ABIF SLP, LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		
.0000		l	l		l		Barings CLO Investment Partners GP, LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		l
0000		l					Barings Core Property Fund GP LLC	CYM	NIA	Barings LLC	Ownership	100.000	MMLIC		1
.0000		l	l		l		Barings Direct Lending GP Ltd.	DE	NIA	Barings LLC	Owner ship.	100.000	MMLIC		1
							J			Massachusetts Mutual Life Insurance	1				
0000		I	84-3784245	l	l	l	Barings Emerging Generation Fund LP	DE	NIA	Company	Owner ship.	100.000	MMLIC		.l'
0000			84-3784245				Barings Emerging Generation Fund LP	DE	NIA	Barings LLC	Management		MMLIC	.	[
							Barings Global Energy Infrastructure								[
0000							Advisors, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		'
							Barings North American Private Loan Fund								[
0000							Management, LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		'
							Barings North American Private Loan Fund				- Composition				
0000							Management II, LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		'
.0000							Barings Global Real Assets Fund GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC	-	
0000							Barings GPSF	DE	NIA	Barings LLC	Owner ship.		MMLIC		
0000							Barings/LAZ Parking Fund GP LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		
							Dai mgo/Lnz i aiking i unu ur LLO	UL	NI 7	Massachusetts Mutual Life Insurance	Omici sittp		. mw10		
0000			84-5063008				Barings Small Business Fund LLC	DE	NIA	Company	Ownership.	42.300	MMLIC		1 '
0000			84-5063008				Barings Small Business Fund LLC	CYM	NIA	Barings LLC	Management		MMLIC		
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Compared Compared				98-0536233												
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	. 0000							Mezzco Australia II LLC	DE	NIA		Ownership.		MMLIC		
Second S	0000							RECSA-NY GP LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		
Secret Special Operaturities Newspeed LLC Secret Special Newspeed LLC Secret Newsp	0000			04-1590850				SBNP SIA II LLC	DE	NI A		. Ownership	100.000	. MMLIC		
	0000							SBNP SIA III LLC	DE	NIA	Barings LLC	Ownership	100.000	. MMLIC		
Amerit Long Form Holdings, LLC SE N.H. Company								Somerset Special Opportunities Management LL	C							
	0000			04-1590850					DE	NIA		. Ownership	100.000	. MMLIC		
											Massachusetts Mutual Life Insurance					
MassMutal International LLC	0000							Amherst Long Term Holdings, LLC	DE	NI A		Ownership	24.500	. MMLIC		
Machine Mach																
				04-3313782					DE						Y	
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								Yunteng Financial Group Limited	HKG							
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March Marc				04-1590650				mmL mezzaittie tilvestor 11, LLC	UE	NIA		Owner Sirrp	100.000	. WWLTC		
	0000			04-1590850				MMI Mezzanine Investor III IIC	DE	NΙΔ		Ownership	11 100	MMLTC		
MassMutual External Benefits Group LLC				04 1000000				mme mezzannie nivestor iii, eeo				owner strip		minL10		
000	0000			27-3576835				MassMutual External Benefits Group IIC	DF	NIA		Ownership	100 000	MML IC		
100 v 3rd Street LLC				2. 00.0000				macomataar External Bonorito aroup EEC				o mor on p				
	0000			04-1590850				100 w. 3rd Street LLC	DE	NIA		Ownership.	100.000	MMLIC		
											Massachusetts Mutual Life Insurance	·				
	0000			04-1590850				2160 Grand Manager LLC	DE	NIA	Company	Ownership	98.100	MMLIC		
000											Massachusetts Mutual Life Insurance					
000 04-1590850 300 South Tryon LLC 66R NIA Company Ownership -100.000 ML C	0000			82-2432216	.			300 South Tryon Hotel LLC	DE	NIA		Ownership	100.000	MMLIC		
Almack Mezzanine Fund LP GBR NIA Company Company Onnership / Influence A1.400 MML IC																
Almack Mezzanine Fund I LP	0000			04-1590850				300 South Tryon LLC	GBR	NIA		Ownership	100.000	. MMLIC		
Almack Mezzanine Fund LP	l l			1												
Almack Mezzanine Fund II Unleveraged LP DE NIA Company Ownership/Influence 72.900 MMLIC DE NIA Company Ownership/Influence 72.900 MMLIC DE NIA Company Ownership Owner																
Almack Mezzanine Fund I Unleveraged LP	0000							Almack Mezzanine Fund I LP	GBR	NIA		Ownership	4.600	MMLIC		
Barings Affordable Housing Mortgage Fund I LLC DE NIA DE NIA DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE NIA DE DE NIA DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE NIA DE DE DE NIA DE	0000								DE	A11.4			70.000	WW 10		
LLC	0000								UE	NIA		Ownership/influence	/2.900	. MMLIC		
Barings Affordable Housing Mortgage Fund I LLC DE NIA Barings LLC Management MALIC DE NIA Company Ownership 100.000 MMLIC DE NIA Barings Affordable Housing Mortgage Fund II LLC DE NIA Barings LLC Management MALIC DE NIA Barings LLC Management MALIC MANAGEMENT MANAGEMENT MALIC MANAGEMENT MALIC MANAGEMENT MALIC MANAGEMENT MALIC MANAGEMENT MALIC MANAGEMENT MALIC MANAGEMENT MALIC MANAGEMENT MANAGEMENT MALIC MANAGEMENT MANAG	0000			1					DE	NI A		Ownership	100,000	MM IC		
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Barings Affordable Housing Mortgage Fund II LLC	0000			61-1902329					DE	NIA		Ownership	100.000	MMLIC		
.0000 DE NIA Barings LLC Management MMLIC MASsachusetts Mutual Life Insurance																
Barings Affordable Housing Mortgage Fund III Massachusetts Mutual Life Insurance	0000			61-1902329	l			LLC	DE	NIA	Barings LLC	Management		MMLIC		
] "]			1				Barings Affordable Housing Mortgage Fund III				,				
	0000			85-3036663				LLC	DE	NIA		Ownership.	100.000	MMLIC		

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		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
	'					'	Barings Affordable Housing Mortgage Fund III		1	, ,	<i>'</i>	Ŭ	, , , , ,		
0000			85-3036663				LLC	DE	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	Company	Ownership/Influence	12.700	MMLIC		
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	C.M. Life Insurance Company	Ownership/Influence	1.300	MMLIC		
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	IRL	NI A	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Corporate Bond Fund			Massachusetts Mutual Life Insurance					
0000								IRL	NI A	Company	Ownership/Influence	90.300	MMLIC		
							Barings Emerging Markets Corporate Bond Fund								
0000								LUX	NIA	Barings LLC	Management		MMLIC		
			I	1	I		Barings European Real Estate Debt Income Fund			Massachusetts Mutual Life Insurance			1		
0000								LUX	NIA	Company	Ownership/Influence	100.000	MMLIC		
			I	1	I		Barings European Real Estate Debt Income Fund						1		
0000								DE	NIA	Barings LLC	Influence.		MMLIC		
							Babson Capital Global Special Situation			Massachusetts Mutual Life Insurance					
0000			98-1206017				Credit Fund 2	DE	NIA	Company	Ownership/Influence	23.800	MMLIC		
							Babson Capital Global Special Situation								
0000			98-1206017				Credit Fund 2	DE	NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC		
							Babson Capital Global Special Situation								
0000			98-1206017				Credit Fund 2	DE	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NIA	Company	Ownership/Influence	75.700	MMLIC		
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NI A	C.M. Life Insurance Company	Ownership	3.800	. MMLIC		
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	IRL	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Barings US High Yield Bond Fund	IRL	NIA	Company	Ownership/Influence	57.200	MMLIC		
0000							Barings US High Yield Bond Fund	CYM	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	NI A	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	NI A	Barings LLC	Influence		MMLIC		5
0000							Babson CLO Ltd. 2016-I	CYM	NIA	Barings LLC	Influence		MMLIC		
0000							Babson CLO Ltd. 2016-II	CYM	NI A	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-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							Barings CLO 2020-I	CYM	NI A	Barings LLC	Influence		MMLIC		·
0000							Barings CLO 2020-II	CYM	NIA	Barings LLC	Influence	····	MMLIC		
0000							Barings CLO 2020-III	CYM	NIA	Barings LLC	Influence		MMLIC		·
0000							Barings CLO 2020-IV	NLD	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	IRL	NIA	Barings LLC	Influence		MMLIC		
0000			36-037260H				Barings Euro CLO 2019-I BV	IRL	NIA	Barings LLC	Influence	· 	MMLIC		· · · · · · · · · · · · · · · · · · ·
0000							Barings Euro CLO 2019-II BV	IRL	NIA	Barings LLC	Influence	····	MMLIC		
.0000							Barings Euro CLO 2020-I DAC	DE	NIA	Barings LLC	Influence	· 	MMLIC		·
0000		I	04 004:05:	I	I		D . GO. A	DE	No. 4	Massachusetts Mutual Life Insurance		00.000	188.10		
.0000			81-0841854				Barings CLO Investment Partners LP	DE	NI A	Company	Ownership/Influence	99.300	MMLIC		·
0000			81-0841854				Barings CLO Investment Partners LP	GBR	NIA	Barings LLC	Management	-	MMLIC		

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						Name of Securities		Domi	Relation-		Board,	Owner-		SCA	
		NIAIO				Exchange	Names of	Domi-	ship		Management,	ship		Filing	
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Code	Group Name	Code	Number	KSSD	CIK	International)	Barings Real Estate European Value Add SCSp	tion	Entity	(Name of Entity/Person) Massachusetts Mutual Life Insurance	Other)	tage	Entity(ies)/Person(s)	(Y/N)	
0000							barrings hear Estate European varue Aud i Scop	GBR	NIA	Company	Ownership/Influence	44.700	MMLIC		
0000							Barings Real Estate European Value Add I SCSp	ubn	NIA	Company	owner strip/ tritruence	44.700	MWLIC		
0000							But mgo nout Eotato Europoun varuo nuu 1 000p	GBR	NIA	C.M. Life Insurance Company	Ownership	5.000	MMLIC		
							Barings Real Estate European Value Add SCSp			The state of the s					
0000								NC	NIA	Barings LLC	Management		MMLIC		
0000			82-5330194				Barings Global Em. Markets Equity Fund	<u>.</u> CYM	NIA	Barings LLC	Management		MMLIC		
							Barings Global Energy Infrastructure Fund I			Massachusetts Mutual Life Insurance					
0000			98-1332384				LP	CYM	NIA	Company	Ownership/Influence	99.200	MMLIC		
0000			98-1332384				Barings Global Energy Infrastructure Fund I	IDI	NII A	Danian Annah Manananah Limidad	Management.		MMLIC		
0000			. 98-1332384				Barings Global Dividends Champion Fund	IRL	NIANIA.	Baring Asset Management Limited Barings LLC	Management		MMLIC		
0000							Barings Global Inv. Grade Strat Fund	INL	NIA	Barings LLC	Management		MMLIC		
0000							barrings drobar rily. draue strat rund	LUX		Massachusetts Mutual Life Insurance			MWLTC		
0000							Barings Global Private Loan Fund	LUX	NIA	Company	Ownership/Influence	10.400	MMLIC		
0000							Barings Global Private Loan Fund	DE	NIA	Barings LLC	Management		MMLIC		
							•			Massachusetts Mutual Life Insurance					
0000			. 82-3867745				Barings Global Real Assets Fund LP	DE	NIA	Company	Ownership/Influence	46.400	MMLIC		
0000			. 82-3867745				Barings Global Real Assets Fund LP	DE	NI A	C.M. Life Insurance Company	Ownership	8.200	MMLIC		
0000			. 82-3867745				Barings Global Real Assets Fund LP	IRL	NIA	Barings LLC	Management		MMLIC		
							Barings Global Special Situations Credit Fund			Massachusetts Mutual Life Insurance					
0000							3	DE	NIA	Company	Ownership/Influence	18.600	MMLIC		
0000							Barings Global Special Situations Credit 4	DE		Massachusetts Mutual Life Insurance		76.500	188 10		
0000							Delaware	DE	NIA	Company	Ownership	/6.500	MMLIC		
0000							Delaware	DE	NIA	C.M. Life Insurance Company	Ownership	3.800	MMLIC		
0000							Barings Global Special Situations Credit 4			C.W. Life Hisurance company	Owner Strip	000	WWLTO		
0000							Delaware	LUX	NIA	Barings LLC	Management		MMLIC		
							Barings Global Special Situations Credit 4			Massachusetts Mutual Life Insurance					
0000							LUX	LUX	NIA	Company	Ownership	28.500	MMLIC		
							Barings Global Special Situations Credit 4								
0000							LUX	LUX	NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC		
							Barings Global Special Situations Credit 4				1				
0000							LUX	IRL	NIA	Barings LLC	Management		MMLIC		
0000							Barings Global Special Situations Credit Fund	CVII	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 2017-1 Ltd & LLC	CYM	NIA	Barings LLC	Influence		MMLIC		
0000							Barings Middle Market CLO 2019-1	DE	NIA	Barings LLC	Influence		MMLIC		
							but migo intoute market oco 2010 1			Massachusetts Mutual Life Insurance	1111101100		mility		
0000			38-4010344				Barings North American Private Loan Fund LP .	DE	NI A	Company	Ownership/Influence	44.500	MMLIC		
0000			38-4010344				Barings North American Private Loan Fund LP	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 98-1332384				Barings RE Credit Strategies VII LP	DE	NI A	Company	Ownership/Influence	34 . 100	MMLIC		
0000			. 98-1332384				Barings RE Credit Strategies VII LP	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
0000							5 1/4 1 1 5	DE		Massachusetts Mutual Life Insurance		00.400	188.10		
0000			-				Braemar Energy Ventures I, L.P.	DE	NIA	Company Company	Ownership/Influence	90.100	MMLIC		
0000							Braemar Energy Ventures I, L.P	DE	NIA NIA	C.M. Life Insurance Company	Ownership	1.400	MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NIA	MassMutual Holding LLC	Ownership/Influence	10.400	MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NIA	C.M. Life Insurance Company	Ownership	0.700	MMLIC		
0000							Barings European Core Property Fund SCSp	NY	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		

1	2	3	4	5	6	7	8	9	10	11	12 Type	13 If	14	15	16
											of Control	Control			
											(Ownership,	is		Is an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
								D:							
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000			38-4096530				Benchmark 2018-B8	DE	NIA	Barings LLC	Influence.		MMLIC		
0000			04-1590850				Braselton Point LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000			20-5578089				Barings Core Property Fund LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	17.800	MMLIC		
0000			20-5578089				Barings Core Property Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Company	Ownership/Influence	25.300	MMLIC		
0000			46-5432619				Cornerstone Real Estate Fund X LP		NIA	C.M. Life Insurance Company	Ownership	2.800	MMLIC		
0000			46-5432619				Cornerstone Real Estate Fund X LP	MA	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
0000			05 050 1000						N: *	Massachusetts Mutual Life Insurance		05.000	188 10		
0000			35-2531693				Cornerstone Permanent Mortgage Fund III LLC .	MA	NIA	Company	Ownership/Influence	95.800	MMLIC		
0000			04 4700705					DE	A11.4	Massachusetts Mutual Life Insurance		400.000	188 10		
0000			61-1793735				Cornerstone Permanent Mortgage Fund IV LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000		I	00 0004405		0004507544		Outron Name in Park	D-	ALL A	Massachusetts Mutual Life Insurance	0	00 500	188 10		1
0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Company	Ownership/Influence	33.500	MMLIC		
0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership	5.000	MMLIC		
										Massachusetts Mutual Life Insurance		44.000			
0000			82-2932156		0004507544		GASL Holdings, LLC	DE	NI A	Company	Ownership/Influence	11.300	MMLIC		
0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Barings LLC	Management	·····	MMLIC		
0000			07 4700000					DE	A11.4	Massachusetts Mutual Life Insurance	0 1: 4.4	44 000	188 10		
0000			37-1708623				Great Lakes III, L.P.	DE	NIA	Company	Ownership/Influence	41.200	MMLIC		
0000			37-1708623				Great Lakes III, L.P.	NY	NIA	Barings LLC	Management		MMLIC		
0000			00 1011011				JPMCC Commercial Mortgage Securities Trust	AD/	A11.4	0 110	Influence		MMLIC		
0000			38-4041011				2017–JP7	NY	NIA	Barings LLC	Influence	·····	MMLIG		
0000			38-4032059				JPMDB Commercial Mortgage Securities Trust 2017-C5	DE	NIA	Barings LLC	Influence		MMLIC		
			38-4032059				2017-65	UE	NIA	Massachusetts Mutual Life Insurance	Influence	·····	MMLIC		
0000			82-1512591				KKR-MM Vector LP	DE	NIA	Company	Ownership/Influence	77.700	MMLIC		
0000			02-1312391				NNH-WWW Vector LP	VE	NIA	Massachusetts Mutual Life Insurance			. MWLIC		
0000			46-4255307				Marco Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			40-4255507				marco noter LLC	UE	NIA	Massachusetts Mutual Life Insurance	Owner sirrp	100.000	MWILTO		
0000			04-1590850				Miami Douglas One GP LLC	DE	NIA	Company	Ownership	0.000	MMLIC		
0000			04-1590850				Miami Douglas One GP LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	5.500	MMLIC		
							miami bougitas one of LEO			Massachusetts Mutual Life Insurance					
0000			04-1590850				Miami Douglas Two GP LLC	DE	NIA	Company	Ownership	84.100	MMLIC		
0000			04-1590850				Miami Douglas Two GP LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				Miami Douglas Two LP	DE	NIA	Company	Ownership.	90.000	MMLIC		1
							5009.00 2			Massachusetts Mutual Life Insurance					
0000			85-3886824				NYDIG Digital Assets Fund II LP	DE	NIA	Company	Ownership.	100.000	MMLIC		1
0000			04-1590850				Miami Douglas Two LP	DE	NIA	C.M. Life Insurance Company	Ownership.	0.000	MMLIC		
		1								Massachusetts Mutual Life Insurance					
0000		.1	45-3623262		l	l	HB Naples Golf Owner LLC	DE	NIA	Company	Ownership	100.000	MMLIC		l
								1		Massachusetts Mutual Life Insurance					
0000							MM CM Holding LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000		.	81-3000420				MM Debt Participations LLC	DE	NIA	Company	Ownership/Influence	100.000	MMLIC		
0000			81-3000420				MM Debt Participations LLC	DE	NIA	Barings LLC	Management		MMLIC		
			I							Massachusetts Mutual Life Insurance					
0000			82-4411267				RB Apartments LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
1										Massachusetts Mutual Life Insurance					
0000			75-2901061				Reston Arboretum LLC	VA	NIA	Company	Ownership	100.000	MMLIC		
			1							Massachusetts Mutual Life Insurance	·				
0000			54-2055778			ĺ	Rockville Town Center LLC	DE	NIA	Company	Ownership	100.000	MMLIC		l

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						Name of Securities			Relation-		Board,	Owner-		SCA	
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Craun			ID	Federal		(U.S. or	Parent. Subsidiaries	ciliary		Directly Controlled by		Percen-	Liltimata Cantrallina		
Group	O N	Company			0114			Loca-	Reporting	Directly Controlled by	Influence,		Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	
0000			00 0050077					DE		Massachusetts Mutual Life Insurance	0 1: (1.1)	40, 400	188.10		
0000			. 20-8856877				Somerset Special Opportunities Fund L.P.	DE	NIA	Company	Ownership/Influence	40.100			
			20-8856877				Somerset Special Opportunities Fund L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	1.900	MMLIC		
0000			. 04–1590850				SouthPointe Industrial LLC	UE	NIA	Massachusetts Mutual Life Insurance	. Ownership	100.000	MWLIC		
0000			35-2553915				Ten Fan Pier Boulevard LLC	DE	NIA		Ownership.	100.000	MMLIC		
0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	Company Barings LLC	Management	100.000	MMLIC		
0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	16.900	MMLIC		
0000			41-2200121				Tower Square Capital Faithers III, L.F	UE	NIA	Massachusetts Mutual Life Insurance	. Owner Sirrp/ Illi ruence	10.900	WWLTC		
0000			41-2280129				Tower Square Capital Partners IIIA, L.P	DE	NIA	Company	Ownership/Influence	90.400	MMLIC		
0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE	NIA	Barings LLC	Management	90.400	MMLIC		
			41-2200129				Tower Square Capital Faithers TITA, L.F	UE	NIA	Massachusetts Mutual Life Insurance	. management		MWLTC		
0000			80-0920367				Tower Square Capital Partners IV-A, L.P	DE	NIA	Company	Ownership/Influence	21.300	MMLIC		
0000			. 00-0920307				Tower Square Capital Faithers IV-A, L.F	UE	NIA	Massachusetts Mutual Life Insurance	Owner Simp/ Initruence	21.300			
0000			04-1590850				Trailside MM Member LLC	DE	NIA	Company	Ownership	59.600	MMLIC		
0000			04-1590850				Trailside MM Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.400	MMLIC		
			. 04-1330030				Trailside www wember LLC	UL	NIA	Massachusetts Mutual Life Insurance	Owner Sirip.				
0000			83-1325764				Washington Gateway Two LLC	DE	NIA	Company	Ownership.	95.400	MMLIC		
0000			83-1325764				Washington Gateway Two LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	6.700	MMLIC		
			. 00-1020704				washington dateway 1wo LLC	UL		Massachusetts Mutual Life Insurance	Owner Sirrp		WWLTC		
0000			32-0574045				Washington Gateway Three LLC	DE	NIA	Company	Ownership	95.100	MMLIC		
0000			32-0574045				Washington Gateway Three LLC	DE	NIA	C.M. Life Insurance Company	Owner ship.	11.400	MMLIC		
,0000			02 03/4043				masnington datemay in co LEO			Massachusetts Mutual Life Insurance	Owner Sirip.		WWLIO		
0000			04-1590850				West 46th Street Hotel LLC	IRL	NIA	Company	Ownership.	100.000	MMLIC		
			01 1000000				Barings Emerging Markets Debt Short Duration			Company	Carrier Gritp.				
. 0000							Fund	CYM	NIA	Barings LLC	Management		MMLIC		
							Babson Capital Loan Strategies Master Fund LP			54go 225	- India a gonion				
0000							baboon bapitar boan ottatogrob maotor rana b	CHN	NIA	Barings LLC	Management.		MMLIC		
							Barings China Aggregate Bond Private								
0000							Securities Investment Fund	MA	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	DE	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			71-1018134				Great Lakes II LLC	DE	NIA	Company	Ownership.	11.200	MMLIC		
0000			71-1018134				Great Lakes II LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	1.000	MMLIC		
				1						Massachusetts Mutual Life Insurance					
0000			04-1590850	.			Wood Creek Venture Fund LLC	DE	NIA	Company	Ownership	40.000	MMLIC		
										Massachusetts Mutual Life Insurance	·				
0000			36-4823011	.			50 Liberty LLC	DE	NIA	Company	Ownership	65.000	MMLIC		
0000		.	36-4823011	.			50 Liberty LLC	CA	NIA	C.M. Life Insurance Company	Ownership	5.800			
				1		1		1		Massachusetts Mutual Life İnsurance					
0000							Barings California Mortgage Fund IV	LUX	NIA	Company	Ownership	100.000	MMLIC		
				I						Massachusetts Mutual Life Insurance					
0000							Barings Umbrella Fund LUX SCSp SICAV RAIF	LUX	NIA	Company	Ownership	26.100			
0000							Barings Umbrella Fund LUX SCSp SICAV RAIF	DE	NIA	C.M. Life Insurance Company	Ownership	2.300	. MMLIC		
				1		1		1		Massachusetts Mutual Life Insurance					
0000			82-2285211				Calgary Railway Holding LLC	DE	NIA	Company	Ownership	90.000	MMLIC		
0000			82-2285211	.			Calgary Railway Holding LLC	DE	NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
1 1				1		1		1		Massachusetts Mutual Life Insurance	1.				
0000			82-3307907	.			Cornbrook PRS Holdings LLC	CA	NIA	Company	Ownership	100.000	MMLIC		
1 1				I				l		Massachusetts Mutual Life Insurance					
0000			95-4207717				Cornerstone California Mortgage Fund I LLC	CA	NIA	Company	Ownership	100.000	MMLIC		
1				I				l		Massachusetts Mutual Life Insurance	l		l		
0000			95-4207717				Cornerstone California Mortgage Fund II LLC .	CA	NIA	Company	Ownership	100.000	MMLIC		

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Group		Company	ID	Federal		(U.Ś. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	1 '
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
	•						Cornerstone California Mortgage Fund III LLC			Massachusetts Mutual Life Insurance					
0000			95-4207717					DE	NIA	Company	Ownership	100.000	MMLIC		1 '
			00 1207717							Massachusetts Mutual Life Insurance	omior on p.		mile 10		
0000			EC OCODEDO				Cormonatora Fart Diarea Davele-ment IIC	DE	NIA		O-mayah i	90.000	MAIL LO		1 '
			56-2630592				Cornerstone Fort Pierce Development LLC	. VE		Company	Ownership		. WINILIO		
0000			56-2630592				Cornerstone Fort Pierce Development LLC	MA	NIA	C.M. Life Insurance Company	Ownership	5.900	MMLIC		'
										Massachusetts Mutual Life Insurance					1 '
0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Company	Ownership	100.000	MMLIC		.['
0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Barings LLC	Management		MMLIC		.1'
1								1		Massachusetts Mutual Life Insurance					1
0000			61-1750537			1	Cornerstone Permanent Mortgage Fund II	MA	NIA	Company	Ownership	100.000	MMLIC		1 '
0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Barings LLC	Management		MMLIC	[ļ
			. 01-1/3033/				OUTHER STORE FEIRMHEIR MULLYAYE FUNG II	MA	NIA		manayement		WIWIL TO		
						1		1		Massachusetts Mutual Life Insurance	- L				1 '
0000			61-1793735				Cornerstone Permanent Mortgage Fund IV	DE	NI A	Company	Ownership	100.000	MMLIC		ļ'
0000			81-0890084				CREA Madison Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	. MMLIC	[. '
										Massachusetts Mutual Life Insurance					1 '
0000			82-2783393				Danville Riverwalk Venture, LLC	DE	NIA	Company	Ownership.	94.400	MMLIC		1 '
			02 27 00000				bantino minoriam fontaro, EEO			Massachusetts Mutual Life Insurance	omor omp.				
0000			20-3347091				For Diar Davelorment IIC	DE	NIA		O-mayah i	66.200	MMLIC		1 '
							Fan Pier Development LLC			Company	Ownership				
0000			20-3347091				Fan Pier Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.900	MMLIC		ļ'
										Massachusetts Mutual Life Insurance					1 '
0000			81-5360103				Landmark Manchester Holdings LLC	DE	NI A	Company	Ownership	100.000	MMLIC		.[
										Massachusetts Mutual Life Insurance	·				1 '
0000			04-1590850				MM Island Member LLC	DE	NIA	Company	Ownership	49.000	MMLIC		1 '
			. 04-1030000				min ISTATIO MEMBET LLC			Massachusetts Mutual Life Insurance	Owner Sirry	43.000	. WWLTO		······
			00 0004500					25				04.000			1 '
0000			83-0881588				NoHo West Venture LLC	DE	NIA	Company	Ownership	94.800	MMLIC		ļ'
										Massachusetts Mutual Life Insurance					1 '
0000			80-0948028				One Harbor Shore LLC	DE	NI A	Company	Ownership	76.000	. MMLIC		. '
0000			80-0948028				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	6.000	MMLIC		.['
										Massachusetts Mutual Life Insurance	•				1 '
0000			04-1590850				PACO France Logistics 2 LLC	DE	NIA	Company	Ownership	100.000	MMLIC		1 '
			01 1000000				Thou Trunou Euglotico E EEO			Massachusetts Mutual Life Insurance	omior dirip.		. minero		1
0000			00 0000400				Doublood 400 Civilla Normania III C	DE	ALLA		0hi	05 000	101 10		1 '
0000			82-3393166				Portland 400 Sixth Manager LLC	DE	NIA	Company	Ownership	95.000	MMLIC	[}'
		1						1		Massachusetts Mutual Life Insurance	1		l	1 1	1 '
0000							Raleigh Crossing Phase I Holdings LLC	DE	NIA	Company	Ownership	90.000	MMLIC	['
						1	Salomon Brothers Commercial Mortgage Trust							1	1 '
0000							2001-MM	DE	NIA	Barings Real Estate Advisers LLC	Influence_		MMLIC	[.1'
]		1						1		Massachusetts Mutual Life Insurance					1
0000		1	27-2977720				Sawgrass Village Shopping Contor IIC	DE	NIA	Company	Ownership	84.200	MMLIC	1	1 '
0000		-					Sawgrass Village Shopping Center LLC	DE	NIA				MMLIC	[f'
0000			27-2977720				Sawgrass Village Shopping Center LLC	.	NIA	C.M. Life Insurance Company	Ownership	15.800	. INIMIL IO		
						1		1		Massachusetts Mutual Life Insurance	- L				1 '
0000							STOA Holding LLC	DE	NIA	Company	Ownership	50.000	MMLIC		ļ'
						1				Massachusetts Mutual Life Insurance					1 '
0000			81-5273574				Three PW Office Holding LLC	MA	NIA	Company	Ownership	95.100	. MMLIC		'
1			1			1	, and the second			Massachusetts Mutual Life Insurance	,				1
0000			35-2484550			1	Twenty Two Liberty LLC	MA	NIA	Company	Owner ship.	65.000	MMLIC		1 '
0000			35-2484550				Twenty Two Liberty LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	35.000	MMLIC		· · · · · · · · · · · · · · · · · · ·
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						1	L	1		Massachusetts Mutual Life Insurance	- L				1 '
0000			82-3250684				Unna, Dortmund Holding LLC	DE	NIA	Company	Ownership	100.000	MMLIC	[ļ'
						1				Massachusetts Mutual Life Insurance					1 '
0000			45-5401109	.			Washington Gateway Apartments Venture LLC	DE	NI A	Company	Ownership.	95.400	MMLIC		.1'
0000			45-5401109				Washington Gateway Apartments Venture LLC	MA	NIA	C.M. Life Insurance Company	Ownership.	3.700	MMLIC		1
			1							Massachusetts Mutual Life Insurance			1		[
0000			45-3168892			1	Managhatual Paringa Dymania Allacation Ford	MA	NI A		Ownership	0.000	MMLIC		1 '
0000			<u>45-9 108875</u>				MassMutual Barings Dynamic Allocation Fund	MA	NIA	Company	Ownership	0.000	WIVIL I U		<u> </u>

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
										Massachusetts Mutual Life Insurance					
0000			. 51-0529328		0000927972	00	MassMutual Premier Main Street Fund	MA	NIA	Company	Ownership	91.900	MMLIC		
0000			26-3229251		0000927972	00	MassMutual Premier Strategic Emerging Markets Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership.	3.400	MMLIC		
0000			. 20-3223231		0000321312	004	i unu		NIA	Massachusetts Mutual Life Insurance	Owner strip.	5.400	, ww.Lio		
0000			. 04-3277550		0000927972	00	MassMutual Premier Value Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
							MassMutual Select Diversified International			Massachusetts Mutual Life Insurance					
0000			. 14-1980900		0000916053	00	Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
0000			04 0004400		0000040050	00	Name No. 4		ALLA	Massachusetts Mutual Life Insurance	0	0.700	188 10		
0000			. 01-0821120		0000916053	00	MassMutual Select Diversified Value Fund	MA	NIA	Company	Ownership	0.700	MMLIC		
0000			. 04-3512593		0000916053	00	MassMutual Select Fundamental Growth Fund	MA	NIA	Company	Ownership.	2.800	MMLIC		
							macomataan ooroot ranaamortan arontin rana			Massachusetts Mutual Life Insurance					
0000			. 04-3513019		0000916053	OQ	MassMutual Select Large Cap Value Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Company	Ownership	16.300	MMLIC		
0000			02-0769954		0000916053	00	MassMutual Select Small Capital Value Equity	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership.	0.000	MMLIC		
0000			. 02-0703334		0000910000	004	i unu		NIA	Massachusetts Mutual Life Insurance	Owner strip.		, ww.Lio		
0000			. 04-3584140		0000916053	00	MassMutual Select Small Company Value Fund	MA	NIA	Company	Ownership.	4.400	MMLIC		
							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance	1				
0000			. 82-3347422		0000916053	0Q	2005 Fund	MA	NIA	Company	Ownership	8.600	MMLIC		
0000			00 0055000		0000040050	00	MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance		0.000	188.10		
0000			. 82-3355639		0000916053	00	2010 Fund	MA	NIA	Company	Owner ship	0.000	MMLIC		
0000			82-3382389		0000916053	00	2015 Fund	MA	NIA	Company	Ownership.	0.000	MMLIC		
							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			. 82-3396442		0000916053	0Q	2020 Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
0000			00 0447400		0000040050	00	MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance		0.000	188.10		
0000			. 82-3417420		0000916053	00	2025 Fund	MA	NIA	Company	Owner ship	0.000	MMLIC		
0000			82-3430358		0000916053	00	2030 Fund	MA	NIA.	Company	Ownership.	0.000	MMLIC		
						***	MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			82-3439837		0000916053	00	2035 Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
			00 0454770				MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			82-3451779		0000916053	00	2040 Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
0000		1	82-3472295		0000916053	00	MassMutual Select T. Rowe Price Retirement 2045 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
			0112200			V 4	MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			. 82-3481715		0000916053	0Q	2050 Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
1]		1					MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance	1				
0000			. 82–3502011		0000916053	00	2055 Fund	MA	NIA	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			02-0020 140			UV	MassMutual Select T. Rowe Price Retirement		NI/	Massachusetts Mutual Life Insurance	omioi sittp		mmL V		
0000			82-3533944		0000916053	0Q	Balanced Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 46-4257056				MML Series International Equity Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
0000		1	. 47-3517233				MMI Sorion II Appet Memontum Fund	MA	NIA	Massachusetts Mutual Life Insurance	Ownership	100,000	MMLIC		
0000			41-3311233				MML Series II Asset Momentum Fund	MA	NIA	Company	Ownership	100.000	NIVILIO		
0000			47-3529636				MML Series II Dynamic Bond Fund	MA	NIA	Company	Ownership	0.000	MMLIC		<u> </u>
		1					·			Massachusetts Mutual Life Insurance	,				
0000			. 47-3544629				MML Series II Equity Rotation Fund	MA	NIA	Company	Ownership	95.000	MMLIC		1

SCHEDULE Y

1	2	2	1	E	6	7	0	0	10	11	12	13	14	15	16
'	2	3	4	5	0	/	0	9	10	11		13	14	15	10
											Type	III			
											of Control	Control		1.	
											(Ownership,	is		Is an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-		Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
										Massachusetts Mutual Life Insurance					
0000			47-3559064				MML Series II Special Situations Fund	MA	NIA	Company	Owner ship	97.400	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			27-1933828		0000916053	0Q	MassMutual RetireSMART 2015 Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			27-1933389		0000916053	00	MassMutual RetireSMART 2035 Fund	MA	NIA	Company	Ownership	3.100	MMLIC		
0000			27-1932769		0000916053	00	MassMutual RetireSMART 2045 Fund	MA	NIA		Ownership	8.700	MMLIC		
0000			21-1932/09		0000916000	0Q	massmutuai Retiresmani 2045 Fund	MA		Company Massachusetts Mutual Life Insurance	owner snrp	0.700	. MWLIC		
0000			46-3289207		0000916053	00	MassMutual RetireSMART 2055 Fund	MA	NIA	Company	Owner ship.	25.500	MMLIC		
			140 0200207		0000010000	Ou	massmatual nethrodinan 2000 runu	mr		Massachusetts Mutual Life Insurance	owner arrip.	20.000	. WWETO		
0000			47-5326235		0000916053	00	MassMutual RetireSMART 2060 Fund	MA	NIA	Company	Ownership.	55.500	MMLIC		
										Massachusetts Mutual Life Insurance	,				
0000			45-1618155		0000916053	0Q	MassMutual RetireSMART Conservative Fund	MA	NIA	Company	Ownership.	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			45-1618222		0000916053	OQ	MassMutual RetireSMART Growth Fund	MA	NIA	Company	Owner ship	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			03-0532464		0000916053	00	MassMutual RetireSMART In Retirement Fund	MA	NIA	Company	Ownership	1.700	MMLIC		
0000			45 4040000		0000040050	00	H H L D L' CHIPT H L L F			Massachusetts Mutual Life Insurance		0.000	188.10		
0000			45-1618262		0000916053	0Q	MassMutual RetireSMART Moderate Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
0000			45-1618046		0000916053	00	MassMutual RetireSMART Moderate Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
0000			45-10 18046		86091 6000	UU	massmutuai netiiesmani Moderate Growth Fund	MA	NIA	Company	Owner Strip.	0.000	. WWLIC		
		1	1	1	1			1	1			1		1	1

Asterisk	Explanation
	ce Company owns 14.23% of the affiliated debt of Jefferies Finance LLC
2 Debt investors own .6% and include	
	des only Babson Capital Loan Strategies Fund, L.P.
4 Debt investors own .5% and include	es only Great Lakes III, L.P.
5 Debt investors own .2% and include	es only Great Lakes III, L.P.

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

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

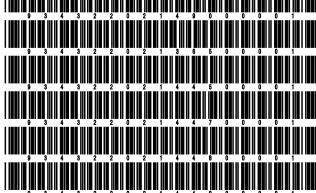
	<u>-</u>	response
1.	Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
2.	Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
3.	Will the Reasonableness of Assumptions Certification 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?	YES
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.		
2.		
3.		
5.		
6.		
7.		
	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]	

Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448]

 Describbleness and Consistence of Assumptions Contification required by

Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447]

 Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449]



NONE

SCHEDULE A - VERIFICATION

Real Estate

		1	2
			Prior Year Ended
		Year to Date	December 31
1.	Book/adjusted carrying value, December 31 of prior year		
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		
	2.2 Additional investment made after acquisition		
3.	Current year change in encumbrances		
4.	Total gain (loss) on disposals		
5.	Deduct amounts received on disposals		
6.	Total foreign exchange change in book/adjusted rying		
7.	Deduct current year's other than temporary impailment recognized		
8.	Deduct current year's depreciation		
9.	Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8)		
10.	Deduct total nonadmitted amounts		
11.	Statement value at end of current period (Line 9 minus Line 10)		

SCHEDULE B - VERIFICATION

Mortgage Loans

		1	2
		Year to Date	Prior Year Ended December 31
1.	Book value/recorded investment excluding accrued interest, December 31 of prior year	943,137,339	933,021,597
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition	43,632	113,622,234
	2.2 Additional investment made after acquisition	866,472	6, 167, 386
3.	2.1 Actual cost at time of acquisition 2.2 Additional investment made after acquisition Capitalized deferred interest and other	475,792	2,348,939
4.	Accrual of discount	21.590	469.811
5.	Unrealized valuation increase (decrease) Total gain (loss) on disposals Deduct amounts received on disposals		
6.	Total gain (loss) on disposals	5,571	(3,579,444)
7.	Deduct amounts received on disposals	21,316,935	111, 116, 592
8.	Deduct amortization of premium and mortgage interest points and commitment fees	251,435	(248,419)
9.	Total foreign exchange change in book value/recorded investment excluding accrued interest	645,322	4,950,700
10.	Deduct current year's other than temporary impairment recognized	292,815	2,995,711
11.	Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	923,334,533	943 , 137 , 339
12.	Total valuation allowance		
13.	Subtotal (Line 11 plus Line 12)	923,334,533	943 , 137 , 339
14.	Deduct total nonadmitted amounts		
15.	Statement value at end of current period (Line 13 minus Line 14)	923,334,533	943, 137, 339

SCHEDULE BA - VERIFICATION

Other Long-Term Invested Assets

	-	1	2
			Prior Year Ended
		Year to Date	December 31
1.	Book/adjusted carrying value, December 31 of prior year	164, 134, 607	160,933,329
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		3,570,271
	2.2 Additional investment made after acquisition	4,472,979	18,338,205
3.	Capitalized deferred interest and other		
4.	Accrual of discount		
5.	Unrealized valuation increase (decrease)	2,946,648	(1,033,654)
6.	Total gain (loss) on disposals	(131,667)	1, 120, 883
7.	Deduct amounts received on disposals	4,528,253	19,008,222
8.	Deduct amortization of premium and depreciation	2,840	12,148
9.	Total foreign exchange change in book/adjusted carrying value	(179,619)	414,885
10.	Deduct current year's other than temporary impairment recognized	2,891	188,943
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	166,708,964	164, 134, 607
12.	Deduct total nonadmitted amounts		
13.	Statement value at end of current period (Line 11 minus Line 12)	166,338,273	163,882,941

SCHEDULE D - VERIFICATION

Bonds and Stocks

		1	2
			Prior Year Ended
		Year to Date	December 31
1.	Book/adjusted carrying value of bonds and stocks, December 31 of prior year	4,373,767,610	4, 131, 363, 369
2.	Cost of bonds and stocks acquired	80,677,739	1,089,776,923
3.	Accrual of discount	1,414,790	3,969,598
4.	Unrealized valuation increase (decrease)	8,399,265	(21,424,095)
5.	Total gain (loss) on disposals	4,516,744	15,521,447
6.	Deduct consideration for bonds and stocks disposed of	198,991,652	879,536,309
7.	Deduct amortization of premium	377,299	1,982,401
8.	Total foreign exchange change in book/adjusted carrying value	(7,538,953)	38,264,712
9.	Deduct current year's other than temporary impairment recognized	1,985,777	7,757,879
10.	Total investment income recognized as a result of prepayment penalties and/or acceleration fees	89,604	5,572,245
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	4,259,972,071	4,373,767,610
12.	Deduct total nonadmitted amounts		
13.	Statement value at end of current period (Line 11 minus Line 12)	4,259,972,071	4,373,767,610

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

<u>U</u>	uring the Current Quarter for	2	3	Designation 4	5	6	7	8
	Book/Adjusted	2	3	7	Book/Adjusted	Book/Adjusted	Book/Adjusted	Book/Adjusted
	Carrying Value	Acquisitions	Dispositions	Non-Trading Activity	Carrying Value	Carrying Value	Carrying Value	Carrying Value
	Beginning	During	During	During	End of	End of	End of	December 31
NAIC Designation	of Current Quarter	Current Quarter	Current Quarter	Current Quarter	First Quarter	Second Quarter	Third Quarter	Prior Year
BONDS								
1. NAIC 1 (a)	2,004,575,623	86,437,698	208,912,813	152,090,216	2,034,190,724			2,004,575,623
2. NAIC 2 (a)	1,802,301,762	1,089,250,671	1,042,448,418	6,712,318	1,855,816,333			1,802,301,762
3. NAIC 3 (a)	322,243,563	70,752,723	74,225,605	(166,989,605)	151,781,076			322,243,563
4. NAIC 4 (a)	101,001,954	1,065,388	11,841,751	(6,885,771)	83,339,820			101,001,954
5. NAIC 5 (a)	117,967,369	407,957	5,525,884	12,177,886	125,027,328			117,967,369
6. NAIC 6 (a)	18,139,061	240,599	678,891	(875, 107)	16,825,662			18,139,061
7. Total Bonds	4,366,229,332	1,248,155,036	1,343,633,362	(3,770,063)	4,266,980,943			4,366,229,332
PREFERRED STOCK								
8. NAIC 1				335,411	697,561			362 , 150
9. NAIC 2	400,000			(400,000)				400,000
10. NAIC 3	1,981,668			18,332	2,000,000			1,981,668
11. NAIC 4	21,744			(21,744)				21,744
12. NAIC 5	2,155,841			67,083	2,222,924			2, 155,841
13. NAIC 6	203,087			(81,586)	121,501			203,087
14. Total Preferred Stock	5,124,490			(82,504)	5,041,986			5,124,490
15. Total Bonds and Preferred Stock	4,371,353,822	1,248,155,036	1,343,633,362		4,272,022,929			4,371,353,822

(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:

SCHEDULE DA - PART 1

Short-Term Investments

	1 Book/Adjusted	2 Dor Volus	3	Interest Collected	5 Paid for Accrued Interest
	Carrying Value	Par Value	Actual Cost	Year-to-Date	Year-to-Date
9199999 Totals	69,981,551	XXX	69,929,269		

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	99,913,683	114, 134, 338
2.	Cost of short-term investments acquired	35,004,158	334, 150, 062
3.	Accrual of discount	54,921	1,323,403
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	3,216	2,869
6.	Deduct consideration received on disposals	64,994,427	349,696,989
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)	69,981,551	99,913,683
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	69,981,551	99,913,683

SCHEDULE DB - PART A - VERIFICATION

	Options, Caps, Floors, Coll-	ars, Swaps and For	wards	
1.	Book/Adjusted Carrying Value, December 31, prior year (Line 10, prior year)			29,445,919
2.	Cost Paid/(Consideration Received) on additions			
3.	Unrealized Valuation increase/(decrease)			(39,951,172)
4.	SSAP No. 108 adjustments			
5.	Total gain (loss) on termination recognized			(7, 122, 307)
6.	Considerations received/(paid) on terminations			(4,862,270)
7.	Amortization			
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	i+9)		(11,412,008)
11.	Deduct nonadmitted assets			
12.	Statement value at end of current period (Line 10 minus Line 11)			(11,412,008)
	SCHEDULE DB - PAR Futures C	ontracts		(40.772.15-1
1.	Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)			
2.	Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote -	Cumulative Cash Char	nge 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			
	3.14 Section 1, Column 18, prior year	(10,389,101)	(21,224,348)(21,224,348)	
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	(21 612 440)		
	3.23 Section 1, Column 19, current year to date minus			
	3.24 Section 1, Column 19, prior year plus		(21 224 240) (21 224 240)	
2.2	3.25 SSAP No. 108 adjustments			
	Subtotal (Line 3.1 minus Line 3.2) Cumulative variation margin on terminated contracts during the year			
4.2	Less: 4.21 Amount used to adjust basis of hedged item	(64 863 865)		
	T.21 / Willount used to adjust basis of nedged Item	(07,000,000)		

....(64,863,865)

.....(10,389,101)

.....31,613,449

.....(31,613,448)

.....(31,613,448)

4.22 Amount recognized

4.23 SSAP No. 108 adjustments ... 4.3 Subtotal (Line 4.1 minus Line 4.2)

7. Deduct total nonadmitted amounts ...

5. Dispositions gains (losses) on contracts terminated in prior year: 5.1 Total gain (loss) recognized for terminations in prior year

8. Statement value at end of current period (Line 6 minus Line 7)

5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year

6. Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)

Schedule DB - Part C - Section 1 - Replication (Synthetic Asset) Transactions (RSATs) Open **N O N E**

Schedule DB-Part C-Section 2-Reconciliation of Replication (Synthetic Asset) Transactions Open ${f N} \ {f O} \ {f N} \ {f E}$

SCHEDULE DB - VERIFICATION

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

		Book/Adjusted Carrying Value Che	eck
1.	Part A, Section 1, Column 14	(11,412,008)	
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance		
3.	Total (Line 1 plus Line 2)		12,008)
4.	Part D, Section 1, Column 6		
5.	Part D, Section 1, Column 7	(636,764,766)	
6.	Total (Line 3 minus Line 4 minus Line 5)	31,6	13,449
		Fair Value Check	
7.	Part A, Section 1, Column 16	(11,412,008)	
8.	Part B, Section 1, Column 13		
9.	Total (Line 7 plus Line 8)	(43,02	25,457)
10.	Part D, Section 1, Column 9	593,739,309	
11.	Part D, Section 1, Column 10	(636,764,766)	
12	Total (Line 9 minus Line 10 minus Line 11)		
		Potential Exposure Check	
13.	Part A, Section 1, Column 21	155, 168, 999	
14.	Part B, Section 1, Column 20	23,731,200	
15.	Part D, Section 1, Column 12	178,900,199	
16.	Total (Line 13 plus Line 14 minus Line 15)		

SCHEDULE E - PART 2 - VERIFICATION

(Cash Equivalents)

	(Cash Equivalents)	1	2
		Year To Date	Prior Year Ended December 31
1.	Book/adjusted carrying value, December 31 of prior year	197,320,603	295,281,728
2.	Cost of cash equivalents acquired	1, 133, 948, 236	8,410,114,707
3.	Accrual of discount	103,536	
4.	Unrealized valuation increase (decrease)		3,564,845
5.	Total gain (loss) on disposals		
6.	Deduct consideration received on disposals	1,080,207,215	8,511,664,399
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)	251, 166,729	197,320,603
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	251,166,729	197,320,603