QUARTERLY STATEMENT

OF THE

C.M. Life Insurance Company

TO THE

Insurance Department

OF THE

STATE OF

FOR THE QUARTER ENDED JUNE 30, 2018

LIFE AND ACCIDENT AND HEALTH

2018



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

QUARTERLY STATEMENT

AS OF JUNE 30, 2018 OF THE CONDITION AND AFFAIRS OF THE

	C.N	1. Life Ir	ารuraเ	nce Compa	ny	
NA		0435 NAIC ((Prior)	Company Cod	e <u>93432</u> Employer's	ID Number	06-1041383
Organized under the Laws of	` ,	'	, , ;	State of Domicile or Port of	Entry	СТ
Country of Domicile		Un	nited States of	America		
Incorporated/Organized	04/25/1980			Commenced Business _		05/12/1981
Statutory Home Office	100 Bright Meadov	v Boulevard			Enfield , CT,	US 06082
	(Street and N	umber)		(City o	or Town, State, Co	ountry and Zip Code)
Main Administrative Office			1295 State S			
	Springfield , MA, US 01111		(Street and No	umber)	413-788-	8411
(City or	Town, State, Country and Zip	Code)		(,	Area Code) (Teler	
Mail Address	1295 State Stree	t			Springfield , MA	v. US 01111
	(Street and Number or P			(City o		untry and Zip Code)
Primary Location of Books and	d Records		1295 State	Street		
-	0 : 5 1 1 1 0 1 1		(Street and N	umber)	440.700	
(City or	Springfield , MA, US 01111 Town, State, Country and Zip	Code)		(/	413-788- Area Code) (Teler	
, ,	rom, otato, obamiy and Esp	,		•		
Internet Website Address		v	www.massmut	ual.com		
Statutory Statement Contact	Sean	G. McCallen				-744-3193
	smccallen@massmutual.com	(Name)	,		(Area Code) (413-226-	Telephone Number) 4086
	(E-mail Address)				(FAX Nur	
President and Chief Executive Officer Secretary	Roger Williar Pia Denise I		OFFICE			Todd Garett Picken Douglas Wright Taylor
	Executive Vice President and ncial Officer	Michael Robe	OTHEF	Recutive Vice President	Melvin Timo	thy Corbett, Executive Vice President
Roger William C	randall - Chairman		CTORS OR	TRUSTEES t Fanning		Elizabeth Ward Chicares
	nes O'Connor					
State of County of	Massachusetts Hampden	SS:				
The officers of this reporting eall of the herein described as statement, together with relative condition and affairs of the sa in accordance with the NAIC rules or regulations require respectively. Furthermore, the	entity being duly sworn, each de sets were the absolute proper ed exhibits, schedules and explid reporting entity as of the reporting and statement Instructions differences in reporting not ree scope of this attestation by the	y of the said repo- anations therein co- orting period stated and Accounting Po- elated to accounting the described office	orting entity, frontained, anno d above, and c ractices and F ng practices ers also includ	ee and clear from any lien exed or referred to, is a full of its income and deduction rocedures manual except and procedures, according les the related correspondi	s or claims there and true statemer s therefrom for the to the extent that: g to the best of ng electronic filing	that on the reporting period stated above, on, except as herein stated, and that this at of all the assets and liabilities and of the eperiod ended, and have been completed (1) state law may differ; or, (2) that state their information, knowledge and belief, with the NAIC, when required, that is an evarious regulators in lieu of or in addition
Roger William (President and Chief Ex Subscribed and sworn to before the state of	recutive Officer		Pia Denise Fla Secretar	a. Is this an original filir b. If no,		
uay of				 State the amenda Date filed 		

3. Number of pages attached.....

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	4,054,675,950		4,054,675,950	4,122,319,659
	Stocks:				
	2.1 Preferred stocks	26,778,301		26,778,301	26,560,290
	2.2 Common stocks	328,088,100		328,088,100	317,923,074
3.	Mortgage loans on real estate:				
	3.1 First liens	915,488,367		915,488,367	937,488,060
	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 sense encumbrances)				
	4.3 Properties held for sale (less \$ encumbrances)				
5.	Cash (\$(19,790,510)), cash equivalents				
	(\$253,437,604) and short-term				
	investments (\$37,702,053)	271,349,147		271,349,147	304,328,282
6.	Contract loans (including \$ premium notes)	145,445,740		145,445,740	148,004,355
7.	Derivatives	335,406,946		335,406,946	396 , 157 , 119
8.	Other invested assets	182,916,114	1,478,713	181,437,401	185,639,250
9.	Receivables for securities	219,753,894		219,753,894	218,771,246
10.	Securities lending reinvested collateral assets				
11.	Aggregate write-ins for invested assets				
12.	Subtotals, cash and invested assets (Lines 1 to 11)	6,479,902,560	1,478,713	6,478,423,847	6,657,191,335
13.	Title plants less \$ charged off (for Title insurers				
	only)				
14.	Investment income due and accrued	104,045,002	1,471,191	102,573,811	100,533,167
15.	Premiums and considerations:				
	15.1 Uncollected premiums and agents' balances in the course of collection	134,718	3,341	131,377	80,804
	15.2 Deferred premiums, agents' balances and installments booked but				
	deferred and not yet due (including \$				
	earned but unbilled premiums)	(37,555,515)		(37,555,515)	(28,604,680)
	15.3 Accrued retrospective premiums (\$				
	contracts subject to redetermination (\$				
16.	Reinsurance:				
	16.1 Amounts recoverable from reinsurers			32,026,377	16,334,540
	16.2 Funds held by or deposited with reinsured companies				
	16.3 Other amounts receivable under reinsurance contracts	8,596,291		8,596,291	6,227,415
17.	Amounts receivable relating to uninsured plans				
	Current federal and foreign income tax recoverable and interest thereon				
	Net deferred tax asset			25,240,124	
19.	Guaranty funds receivable or on deposit	947,562		947,562	946,678
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			293,666	301,243
24.	Health care (\$) and other amounts receivable				
25.	Aggregate write-ins for other than invested assets	869,230	802,220	67,010	739,020
	Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	6,694,455,188	83,710,638	6,610,744,550	6,779,429,362
27.	From Separate Accounts, Segregated Accounts and Protected Cell Accounts	1.831.864 102		1,831,864,102	1.877.854 722
28.	Total (Lines 26 and 27)	8,526,319,290		8,442,608,652	8,657,284,084
	DETAILS OF WRITE-INS	-,,,	,	-,,,	-,,
1101.	DETAILS OF WHITE INC				
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)				
	Miscellaneous other assets	69 954	2 944	67,010	739 020
	Cash advanced to agents				
	-				
2503. 2598.	Summary of romaining write ine for Line 25 from quarflow page				
	Summary of remaining write-ins for Line 25 from overflow page	869,230			739,020
2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	003,230	002,220	01,010	139,020

LIABILITIES, SURPLUS AND OTHER FUNDS

Appropriate resource for life cerenates 3,483,82,381 leas included in Line 6.9 3,483,82,281 leas 1,490,885,82,281 3,490,885,825 3,		LIADILITIES, SURPLUS AND OTHER PU	1100	
1. Aggregate reserve for file contains \$			1 Current	2 December 31
A contacting A books necessary A contact statement A conta				
2. Augmenter service for auchient and health controlses (including \$ Modes Perserve). 4. Librality for deposity special controls (including \$ Modes Perserve). 5. Polytoproses of workers \$ 1,000 and the service of t	1.	Aggregate reserve for life contracts \$	0 000 000 001	4 000 000 000
3. Licellarly for exposed type contracts including \$ Madoo Pisserve). 99 89 90 90 10 07 32 4 Contract activates: 4. Accordant and Neeth	2			
4. Contract dame: 1				
A Accordant and health. A Projunction inclinates, it displands and cappany spells to this plant polarization year realization of the project	4.	Contract claims:		
5. Pelicytroder dividents 3 and coupper 5 with the company of the				
6. Provision for policyholosed violenda and cuprore evalve in following calendar year - astimated amounts: 8. 1 Dividentiar only et approximent (including \$ Modes) 0. 2 Dividentiar only et approximent (including \$ Modes) 1. 2 Dividentiar only et approximent (including \$ Modes) 2. Provision for experience rating ethics of liverage of the provision of the provision of the provision of the provision for experience rating entury, including \$ accident and health promision	_			
6. I Divisands apportioned for perment including is Modors) 6. J. Divisands in perspections (including is Modors) 7. Divisands in perspections (including is Modors) 7. Divisands from the perspections (including is Modors) 8. Permitter and armitter benefits (including is laudilled including the laudilled including is laudilled including includin				
6. 2. Dividence in only se apportioned (relicuting \$ Modes) 7. Amount provisionally to delete and dividend politicish on Intelligent (relicuting \$	0.			
6. S. Couprom and similar branches (including is an account and the second in advance less and the second in advance less account and annuly contacted sections and health contracts elected in advance less account and annuly contacted sections and health permuture and similar contracts elected in advance less account and annuly contacts elected in advance less account and health permuture and similar contracts elected in advance less account and health account account and health account account and health account and health account account and health account account and health				
8. Plemuluris and sensity considerations for the and accident and health contracts received in advance less \$				
S discount; including \$ excident and health premiums	7.	Amount provisionally held for deferred dividend policies not included in Line 6		
9. Contract liabilities not included elsewhere. 9.1 Summards values on conscious druids. 9.2 Provisions for expensive rating restude, including the liability of \$ account and health Secretary values on conscious of the and work of the separation	8.	Premiums and annuity considerations for life and accident and health contracts received in advance less		
9.5 Summetre values on connected contractes. 9.2 Provision for experience rating prinches, including the liability of \$ 9.2 Provision for experience rating funds of which \$ 9.3 Summetre values on physical provisions of which \$ 9.3 Summetre values on physical provisions of the physical provi			4,856	6, 122
9 Provision for experience rating refunds, including the labelity of \$ sourced and health experience rating refunds (which \$ is for medical bost ratio better per the Public Health Service Act	9.			
experience rating refunds of which \$ sit or medical loss salor rebate per the Public Health Survive Act. 9.3 Other amounts papels on reinsurance, including \$ assumed and \$ 37,778 41,000 41,00				
9.3 Other amounts payable on remurance, including \$ assumed and \$ 377.79 214.01				
cecled		Service Act		
3.4 Interest Maintenance Reserve				
10. Commissions to agents due or account-file and annuity contracts is a contract contract three 5 is a contract contrac		ceded	397,778 [214,015
\$ and deposit-type contract funds \$ 1.038 1. Commissions and expense allow or accrued or instruction assumed 1.38 1. Commissions and expense allow or accrued (reft) (including \$ (5.361,752) accrued for expense allowances recognized to expense, net for instructed allowances 1.386 1. Transfers to Separate Accounts due or accrued (reft) (including \$ (5.361,752) accrued for expense allowances recognized in reserves, net for instructed allowances 1.386 1. Transfers to Separate Accounts (including federal income taxes 1.383, 754 1. Transfers to the continued of the	10		4,080,168	56,712,748
1.1 Commissions and expense allowances public on reinsurance assumed 1,388 1,085,21	10.	· · · · · · · · · · · · · · · · · · ·		
1.38	11			
13. Transfers to Separate Accounts due or accrued (net) (including \$				
allowances recognized in reserves, not of reinsured allowances 1,5,70,577 (5,605,57) (1,505,57) (1,505,57) (1,507,5		Transfers to Separate Accounts due or accrued (net) (including \$(5,361,752) accrued for expense		
15.1 Current federal and foreign income taxes, including \$		allowances recognized in reserves, net of reinsured allowances)	(5,700,537)	(5,805,549)
15.2 Net deferred tax liability		Taxes, licenses and fees due or accrued, excluding federal income taxes	786,805	1,329,518
16. December income (343,860) (462,16)				
17. Amounts withhold or retained by company as agent or trustee	I .	•		
18. Amounts held for agents' account, including \$ agents' credit balances 1(10, 083, 549) 48, 486, 39 19. Remittances and idens not allocated 1(10, 083, 549) 48, 486, 39 19. Reliable of the properties 1(10, 083, 549) 48, 486, 39 19. Reliable of the properties 1(10, 083, 549) 48, 486, 39 19. Reliable of the properties 1(10, 083, 549) 48, 486, 39 19. Reliable of the properties 1(10, 083, 549) 48, 486, 39 22. Borrowed money \$ and interest thereon \$ 24, 24, 24, 24, 24, 24, 24, 24, 24, 24,				
19 Remittances and terms not allocated 10 (83 549) 48,466,38 48,466,38 22 Nat adjustment in assets and liabilities due to foreign exchange rates 21 Liability for benefits for employees and agents if not included above 22 Derrowed money \$				
Lability for benefits for employees and agents if not included above	19.			
22	20.	· ·		
Dividends to stockholders declared and unpaid				
Miscellaneous liabilities: 24.01 Asset valuation reserve 96, 188,679 96, 331.97	I .	•		
24.01 Assat valuation reserve 24.02 Pelinsurance 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 Payable to parent, subsidiaries and affiliates 24.06 Lability for amounts held under uninsured plans 24.06 Lability for amounts held under uninsured plans 24.07 Funds held under consurance 24.08 Derivatives 24.09 Derivatives 24.09 Derivatives 24.09 Derivatives 24.10 Payable for securities lending 24.10 Payable for securities lending 24.10 Payable for securities lending 24.10 Payable for securities and interest thereon \$ 25. Aggregate write-ins for liabilities 388, 196, 557 402, 097, 91 25. Total labilities excluding Separate Accounts business (Lines 1 to 25) 5, 020, 907, 447 27 27. From Separate Accounts Statement 1,1831,864,102 1,877,954,72 28. Total labilities (Lines 26 and 27) 6, 582,771,949 1,708,1124,192 29. Common capital stock 20. Preferend capital stock 21. Aggregate write-ins for other than special surplus funds 23. Surplus notes 24. Aggregate write-ins for other than special surplus funds 36. Less treasury stock, at cost: 36. Unassigned funds (surplus) 37. Surplus (Total Lines 31+22-33+341-55,6) (clinuding \$) 38. Unassigned funds (surplus) 39. Totals of Lines 28 and 36 (Reg 2. Line 28, Col. 3) 39. Totals of Lines 28, 90 and 37 30. Totals of Lines 28, 90 and 37 30. Surplus (Total Lines 31+22-33+341-55,6) (clinuding \$) 39. Totals of Lines 29, 90 and 37 30. Surplus (Total Lines 31+22-33+341-55,6) (clinuding \$) 30. Erral (Lines 25 from overflow page 30. Derivative collaters (Line 25 from overflow page 30. Summary of remaining write-ins for Line 25 from overflow page 30. Summary of remaining write-ins for Line 25 from overflow page 30. Summary of remaining write-ins for Line 31 from overflow page 30. Summary of remaining write-ins for Line 31 from overflow page 30. Summary of remaining write-ins for Line 34 from overflow page	_	·		
24.02 Reinsurance in unauthorized and certified (\$) companies	24.		96.188.679	96.331.973
24.05 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers 24.06 Parable to parent, subsidiaries and affiliates 25.558, 228 35, 097, 14 24.05 Darks outstanding 24.06 Liability for amounts held under uninsured plans 24.07 Funds held under coinsurance 24.07 Funds held under coinsurance 32.09 Payable for securities 24.09 Payable for securities 24.09 Payable for securities 24.09 Payable for securities lending 24.10 Payable for securities lending 24.10 Payable for securities lending 24.10 Payable for securities lending 25.10 Payable for securities lending 26.10 Payable for securities 26.10 Payable for securit				
24.05 Drafts outstanding. 24.06 Liability for amounts held under uninsured plans 24.07 Funds held under coinsurance 24.08 Prunds held under coinsurance 24.09 Payable for securities 24.09 Payable for securities lending. 24.10 Payable for securities lending. 24.10 Payable for securities lending. 24.10 Payable for securities lending. 25. Aggregate write-ins for liabilities. 388.186.867 402.097.97 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 5.002.907.847 5.2002.699.47 27. From Separate Accounts Statement. 1.831.864.102 1.877.854.72 28. Total liabilities (sex liabilities). 29. Common capital stock. 20. Surplus notes surplus funds. 30. Preferred capital stock. 31. Aggregate write-ins for other fhan special surplus funds. 32. Surplus notes 33. Gross paid in and contributed surplus 450.276.208 450.276.208 34. Aggregate write-ins for special surplus funds. 35. Unassigned funds (surplus). 36. Less treasury stock, at cost: 36.1 shares common (value included in Line 29 \$) 37. Surplus (Total Lines 31+32+334+35-36) (including \$ In Separate Accounts Statement). 38. Totals of Lines 29.30 and 37 1,579.59.89 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) DETAILS OF WRITE-INS 250. DETAILS OF WRITE-INS 250. Derivative accrued inferest 250. Per lative accrued inferest separate line 25 showe) 360. Per lative accrued inferest separate line 25 showe) 361. Per lative accrued inferest separate line 25 showe) 362. Summary of remaining write-ins for Line 25 from overflow page 370. Totals (Lines 3101 through 3103 plus 3198) (Line 31 above) 371. Aggregate accruence and the proper separate accounts statement) 372. Per lative accrued inferest separate accounts statement) 373. Summary of remaining write-ins for Line 25 from overflow page 374. 182. 202. Per lative accr		24.03 Funds held under reinsurance treaties with unauthorized and certified (\$		
24.06 Liability for amounts held under uninsured plans 24.07 Funds held under coinsurance 24.08 Derivatives 24.08 Derivatives 24.10 Payable for securities 24.11 Capital notes \$ 24.11 Capital notes \$ 24.11 Capital notes \$ 388, 186, 857 402, 097, 91 25. Aggregate write-ins for liabilities substiness (Lines 1 to 25) 5, 200, 907, 847 5, 200, 297, 947 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 5, 200, 907, 847 5, 200, 299, 747 27. From Separate Accounts Statement 1, 183, 1864, 102 1, 177, 854, 72 28. Total liabilities (Lines 26 and 27) 6, 852, 771, 949 7, 094, 124, 192 29. Common capital stock 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 2, 500, 000 30. Preferred capital stock 3, 250, 298, 294, 294, 294, 294, 294, 294, 294, 294		24.04 Payable to parent, subsidiaries and affiliates	25,558,228	35,097,141
24.07 Funds held under coinsurance 24.08 Derivatives 24.09 Payable for securities 24.10 Payable for securities lending 24.11 Capital notes \$ 24.10 Payable for securities lending 24.11 Capital notes \$ 388.186.857 25. Aggregate write-ins for liabilities 388.186.857 402.097.91 25. Total liabilities explicitly Separate Accounts business (Lines 1 to 25) 5.020.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907.847 5.209.907 27. From Separate Accounts Statement 1.831,864,102 1.831,86				
24.08 Derivatives		·		
24.09 Payable for securities 24.10 Payable for securities lending 24.11 Capital notes \$ and interest thereon \$ 25. Aggregate write-ins for liabilities 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 27. From Separate Accounts Statement 28. Total liabilities (Lines 26 and 27) 29. Common capital stock 20. Common capital stock 21. Sound Surplus for the first for other than special surplus funds 29. Common capital stock 20. Sound Surplus notes 29. Common capital stock 20. Surplus notes 30. Preferred capital stock 31. Aggregate write-ins for other than special surplus funds 32. Surplus notes 33. Gross paid in and contributed surplus 34. Aggregate write-ins for special surplus funds 35. Unassigned funds (surplus) 36. Less treasury stock, at cost: 36.1 shares common (value included in Line 29 \$) 36.2 shares preferred (value included in Line 30 \$) 37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 38. Totals of Lines 29, 30 and 37 39. Totals of Lines 29, 30 and 37 40. Totals of Lines 29, 30 and 37 50. Totals of Lines 29, 30 and 37 50. Totals of Lines 29, 30 and 37 50. Totals of Lines 29, 30 and 38 (Page 2, Line 28, Col. 3) 50. Earth (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Earth (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 50. Bett (Lines 31+32+33+34+35-36) (includin				
24.1 D Payable for securities lending. 24.1 Logalial notes \$ and interest thereon \$ 25. Aggregate write-ins for liabilities \$ 388,186,857 402,097,947 5,260,297,947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,7947 5,260,299,794 7,209,4124,199 1,277,854,729 1,277,894 7,2094,124,199 6,852,771,949 7,2094,124,124,124,124,124,124,124,124,124,12				
25. Aggregate write-ins for liabilities				
Total liabilities excluding Separate Accounts business (Lines 1 to 25)				
27. From Separate Accounts Statement				402,097,919
Total liabilities (Lines 26 and 27)				
2, 0, 0, 0, 0, 2, 500, 00 2, 500, 00 3, 0, 0, 00 3, 0, 0, 0, 00 3, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,				
30 Preferred capital stock Aggregate write-ins for other than special surplus funds Surplus notes Aggregate write-ins for special surplus funds Aggregate write-ins for Lines 29 Aggregate write-ins for Lines 29 Aggregate write-ins for Lines 29 Aggregate write-ins for Line 29 Aggregate write-ins for Line 29 Aggregate write-ins for Lines 29 Aggregate write-ins for Line 29 Aggregate write-ins for Line 29 Aggregate write-ins for Lines 29 Aggregate write-ins for Line 29 Aggr		Total liabilities (Lines 26 and 27)	2 500 000	
31. Aggregate write-ins for other than special surplus funds 32. Surplus notes 33. Gross paid in and contributed surplus 34. Aggregate write-ins for special surplus funds 35. Unassigned funds (surplus) 36. Less treasury stock, at cost: 36.1 shares common (value included in Line 29 \$) 36.2 shares preferred (value included in Line 30 \$) 37. Surplus (Total Lines 31+32+33+34-35-36) (including \$ in Separate Accounts Statement) 38. Totals of Lines 29, 30 and 37 39. Totals of Lines 29, 30 and 37 40. Totals of Lines 29, 30 and 37 50. Less treasury stock, at cost: 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 40. Expression of the separate Accounts Statement) 40. Surplus (Total Lines 31+32+33+34-35-36) 40. Surplus (Total Lines 31+32+33+35-36) 40. Surplus (Total Lines 250 and 37) 40. Surplus (Total Lines 29, 30 and 37) 40. Surplus (Total Li				
32. Surplus notes 33. Gross paid in and contributed surplus 34. Aggregate write-ins for special surplus funds 35. Unassigned funds (surplus) 36. Less treasury stock, at cost: 36.1 shares common (value included in Line 29 \$) 36.2 shares preferred (value included in Line 30 \$) 37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 38. Totals of Lines 29, 30 and 37 39. Totals of Lines 29, 30 and 37 30. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 39. Totals of Lines 29 and 30 30. Totals of Lines 29, 30 and 37 30. Totals of Lines 29, 30 and 37 31. Totals of Lines 29, 30 and 37 32. Totals of Lines 29 and 38 (Page 2, Line 28, Col. 3) 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 39. Totals of Lines 29, 30 and 37 30. Totals of Lines 29, 30 and 37 31. Totals of Lines 29, 30 and 37 323. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 39. Totals of Lines 29, 30 and 37 30. Totals (Lines 250 marrian) 30. Summary of remaining write-ins for Line 31 from overflow page 30. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 30. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 30. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 30. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)		·		
34. Aggregate write-ins for special surplus funds 35. Unassigned funds (surplus) 36. Less treasury stock, at cost: 36.1 shares common (value included in Line 29 \$) 36.2 shares preferred (value included in Line 30 \$) 37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 38. Totals of Lines 29, 30 and 37 39. Totals of Lines 29, 30 and 37 39. Totals of Lines 29 and 38 (Page 2, Line 28, Col. 3) DETAILS OF WRITE-INS 2501. Repurchase agreements 224,640,398 2502. Derivative collateral 2503. Derivative collateral 2504. Derivative collateral 2505. Summary of remaining write-ins for Line 25 from overflow page 3101. 3101. 3102. 3103. 3108. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3498. Summary of remaining write-ins for Line 34 from overflow page		Surplus notes		
35. Unassigned funds (surplus)	33.	Gross paid in and contributed surplus	450,276,208	450,276,208
36. Less treasury stock, at cost: 36.1				
36.1 shares common (value included in Line 29 \$)			1, 13/,060,495	1, 120, 383, 682
36.2 shares preferred (value included in Line 30 \$)	36.			
37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 1,587,336,703 1,570,659,89 38. Totals of Lines 29, 30 and 37 1,589,836,703 1,573,159,89 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 8,442,608,652 8,657,284,08 DETAILS OF WRITE-INS 2501. Repurchase agreements 234,640,398 232,861,94 2502. Derivative accrued interest 99,665,987 97,311,64 2503. Derivative collateral 52,718,452 68,449,15 2598. Summary of remaining write-ins for Line 25 from overflow page 4,162,020 3,475,16 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 388,186,857 402,097,91 3101. 3102. 3103. 3198. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 3403. 3408.				
38. Totals of Lines 29, 30 and 37 1,589,836,703 1,573,159,89 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 8,442,608,652 8,657,284,08 DETAILS OF WRITE-INS 2501. Repurchase agreements 234,640,398 232,861,94 2502. Derivative accrued interest 96,665,987 97,311,64 2503. Derivative collateral 52,718,452 68,449,15 2598. Summary of remaining write-ins for Line 25 from overflow page 4,162,020 3,475,16 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 388,186,857 402,097,91 3101. 3102. 3103. 3198. Summary of remaining write-ins for Line 31 from overflow page. 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3401. 3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page. 3496 control overflow page.	37.			1,570,659,890
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 8,442,608,652 8,657,284,08				1,573,159,890
2501. Repurchase agreements 234,640,398 232,861,94 2502. Derivative accrued interest 96,665,987 97,311,64 2503. Derivative collateral 52,718,452 68,449,15 2598. Summary of remaining write-ins for Line 25 from overflow page 4,162,020 3,475,16 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 388,186,857 402,097,91 3101. 3102. 3103. 3103. 3198. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3401. 3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page 34 from overflow page 3498. Summary of remaining write-ins for Line 34 from overflow page	39.		8,442,608,652	8,657,284,084
2502. Derivative accrued interest 96,665,987 97,311,64				
2503. Der ivative collateral .52,718,452 .68,449,15 2598. Summary of remaining write-ins for Line 25 from overflow page .4,162,020 .3,475,16 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 388,186,857 402,097,91 3101. 3102. 3103. 3103. 3198. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)				
2598. Summary of remaining write-ins for Line 25 from overflow page 4, 162,020 .3,475,16 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 388,186,857 402,097,91 3101.			' '	, ,
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 388,186,857 402,097,91 3101. 3102. 3103. 3198. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3401. 3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page				
3101				402,097,919
3102. 3103. 3198. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3401. 3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page			- , , -	
3198. Summary of remaining write-ins for Line 31 from overflow page 3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3401. 3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page				
3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above) 3401				
3401. 3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page		· · · · · · · · · · · · · · · · · · ·		
3402. 3403. 3498. Summary of remaining write-ins for Line 34 from overflow page				
3403	I .			
3498. Summary of remaining write-ins for Line 34 from overflow page				
, , , , , , , , , , , , , , , , , , , ,				
יסיפס. יסנמוס בווויסס טדט ו נווויטמקוו טדטט אומס טדטטוובווויט טד מגטיויט ו	3499.	Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)		

SUMMARY OF OPERATIONS

Premiums and annuity considerations for life and accident and health contracts 156,684,983 141,197,888 22 Considerations for supplementary contracts with life contingencies 792,818 343,534 344,534 3	2,215,44 667,173,64
1. Premiums and annuity considerations for life and accident and health contracts 156, 684, 963 141, 979, 888 2. Considerations for supplementary contracts with life contingencies 792, 818 3,84, 333 3. Net investment income 151, 111, 031 149, 981, 845 2. Amounts and supplementary contracts with life contingencies 151, 111, 031 149, 981, 845 2. Amounts and supplementary contracts with life contracts 151, 111, 031 149, 981, 845 2. Commissions and expense allowances on reinsurance ceded 7,542, 228 9,562,523 7. Reserve adjustments on reinsurance ceded 7,542, 228 9,562,523 7. Reserve adjustments on reinsurance ceded 8. Miscellaneous Income 8. Income from fees associated with investment management, administration and contract guarantees from Separate Accounts 18,759,014 18,995,371 18,95,371 18,200,400,400,400,400,400,400,400,400,400	283,429,78
2. Considerations for supplementary contracts with life contingencies	
3. Net investment income	295,776,40
4. Amortization of Interest Maintenance Reserve (MR). S. Separate Accounts net grain from operations excluding unrealized gains or losses. 6. Commissions and expense allowances on reinsurance ceded. 7. Reserve adjustments on reinsurance ceded. 8. Miscellaneous income: 8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts. 8. 2 Charges and fees for deposit-type contracts. 8. 3 Aggregate write-ins for miscellaneous income. 1. 139, 521 1. 084, 489 7. Totals (Lines 1 to 8.3). 7. Totals (Lines 1 to 8.3). 8. Annuity benefits. 5. 7, 265, 718 6. 86, 643, 305 1. Dealth benefits. 5. 548, 884 5. 7, 406, 248 1. Coupons, guaranteed annual pure endowments and similar benefits. 5. Surrender benefits and withdrawals for life contracts. 8. Surrender benefits and withdrawals for life contracts. 8. Charge prevents on supplementary contracts with life contingencies. 7. Totals (Lines 1 to 8.3). 8. Payments on supplementary contracts with life contingencies. 9. Totals (Lines 1 to 1.9). 1. Increase in aggregate reserves for life and accident and health contracts. 1. Totals (Lines 1 to 1.9). 2. Commissions and expense allowances on reinsurance assumed. 4. 7, 627, 100 7. 7, 627, 100 7. 7, 37, 140 7. 7, 39, 59, 50, 50, 50, 50, 50, 50, 50, 50, 50, 50	38,055,41 2,215,44 667,173,64
6. Commissions and expense allowances on reinsurance ceded 8. Miscellaneous Income: 8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts. 8.2 Charges and fees for deposit-type contracts. 8.3 Aggregate write-ins for miscellaneous income 1.139, 521 1.084, 469 1.7 Totals (Lines 1 to 8.3) 1.0 Death benefits 1.0 Death benefits 1.1 Matured endowments (excluding guaranteed annual pure endowments) 1.2 Annutry benefits 1.2 Annutry benefits 1.3 Disability benefits and expense and fees for expense and fees for expense and fees for expense and fees for expense for expense for forms from fees for expense for expense for forms from fees for expense for e	38,055,41 2,215,44 667,173,64
	38,055,41 2,215,44 667,173,64
Miscellaneous Incomer Sal Income from fees associated with investment management, administration and contract guarantees from Separate Accounts. Sal Chromes from Separate Accounts. Sal Chroges and fees for deposit-type contracts. Sal Chroges and fees for deposit-type contract funds. Surrender benefits and withdrawals for life contracts. Surrender benefits and surrender benefits. Surrender benefits and surrender benefits. Surrender benefits. Surrender benefits. Surrender benefits. S	2,215,44 667,173,64
8.1 income from fees associated with investment management, administration and contract guarantees from Separate Accounts. 8.2 Charges and fees for deposit-type contracts. 8.3 Aggregate write-ins for miscellaneous income	2,215,44 667,173,64
guarantees from Separate Accounts. 8.2 Charges and frees for deposit-type contracts 8.3 Aggregate write-ins for miscellaneous income. 7. Totals (Lines 1 to 8.3) 7. Totals (Lines 1 to 8.3) 7. Totals (Lines 1 to 8.3) 8.2 Charges and frees for deposit-type contracts. 8.3 Aggregate write-ins for miscellaneous income. 7. Totals (Lines 1 to 8.3) 8.3 Charges and frees for deposit-type contracts. 8.4 Annually benefits 8.5 7.685,718 8.6 843,305 1. Matured endowments (excluding guaranteed annual pure endowments). 8.5 5,438,984 7. 7,408,248 1. Disability benefits and benefits under accident and health contracts. 8. 305,437 7. 241,120 1. Couptons, guaranteed annual pure endowments and similar benefits. 8. Surrender benefits and withdrawals for life contracts. 8. Caroup conversions. 1. Interest and adjustments on contract or deposit-type contract funds. 1. Payments on supplementary contracts with life contingencies. 7. 22,226 7. 228 7. 228 7. 228 7. 10,004,289 7. Totals (Lines 1 to 1 to 1) 7. Totals (Lines 1 to 1 to 1) 7. Totals (Lines 1 to 1 to 1) 8. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only). 8. Commissions and expense allowances on reinsurance assumed. 9. Commissions and expense allowances on reinsurance assumed. 9. Commissions and expense and feets, excluding federal income taxes. 9. 5,393,737 9. 5,930,503 9. Net transfers to or (from) Separate Accounts net of reinsurance. 9. Net transfers to or (from) Separate Accounts net of reinsurance. 10. Dividends to policyholders. 11. Net gain from operations after dividends to policyholders and before federal income taxes (Line 9 minus Line 29). 12. Federal and foreign income taxes incurred (excluding tax on capital gains). 13. Net gain from operations after dividends to policyholders and before federal income taxes (Line 9 minus Line 29). 14. Standard foreign income taxes incurred (excluding tax on capital gains). 15. Aggregate write-ins for deductions. 16. 4, 137, 159, 88	2,215,44 667,173,64
8.2 Charges and fees for deposit-type contracts 8.3 Aggregate write-ins for miscellaneous income 9. Totals (Lines 1 to 8.3) 9. Totals (Lines 1 to 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 9) 9. Totals (Lines 1 to 1 to 1 to 9) 9. Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only) 9. Commissions and expense allowances on reinsurance assumed 9. Commissions and expense allowances on reinsurance assumed 9. Linearease in loading on deferred and uncollected premiums 9. Net transfers to or (from) Separate Accounts net of reinsurance 9. Net transfers to or (from) Separate Accounts net of reinsurance 9. Net transfers to or (from) Separate Accounts net of reinsurance 9. Net grain from operations after dividends to policyholders and federal income taxes (Line 9 minus Line 20) 9. Net gain from operations after dividends to policyholders and federal income taxes (Line 9 minus Line 20) 9. Net gain from operations after dividends to policyholders and federal income taxes (Line 9 minus Line 20) 9. Net gain from operations after dividends to policyholders and federal income taxes (Line 9 minus Line 20) 9. Net gain from operations after dividends to policyholders and federal income taxes (Line 9 minus Line 20) 9. Net gain from operations after dividends to policyholders and federal income taxes (Line 9 minus Line 20) 9. Net gain from operations after dividends of policyhol	2,215,44 667,173,64
8.3 Aggregate write-ins for miscellaneous income	667, 173, 64
10. Death benefits	
Matured endowments (excluding guaranteed annual pure endowments)	
12	
13. Disability benefits and benefits under accident and health contracts. 305,437 241,120 14. Coupons, guaranteed annual pure endowments and similar benefits 217,321,410 198,049,595 2 15. Surrender benefits and withdrawals for life contracts 217,321,410 198,049,595 2 16. Group conversions 1,978,234 2,011,663 17. Interest and adjustments on contract or deposit-type contract funds 1,978,234 2,011,663 18. Payments on supplementary contracts with life contingencies 732,226 5,827,751 19. Increase in aggregate reserves for life and accident and health contracts (37,004,269) (40,783,619) (10	
14. Coupons, guaranteed annual pure endowments and similar benefits Surrender benefits and withdrawals for life contracts 217, 321, 410 198,049,595	387,539,80 3,684,03 1,109,94 (29,082,65 576,977,81 34,084,53 64,071,48 10,237,84 (3,351,73 (119,415,40 (6,353,96 556,250,57 110,923,06 32,332,52
15. Surrender benefits and withdrawals for life contracts	
16. Group conversions	3,684,03 1,109,94 (29,082,65 576,977,81 34,084,53 64,071,48 10,237,84 (3,351,73 (119,415,40 (6,353,96 556,250,57 110,923,06 32,332,52 78,590,54
17. Interest and adjustments on contract or deposit-type contract funds	3,684,03
18. Payments on supplementary contracts with life contingencies 732, 226 592, 751 19. Increase in aggregate reserves for life and accident and health contracts (37,004,269) (40,783,619) (20. Totals (Lines 10 to 19) 226,037,740 2286,153,063 5.	
19. Increase in aggregate reserves for life and accident and health contracts	(29,082,65 576,977,81 34,084,53 64,071,48 (3,351,73 (119,415,40 (6,353,96 556,250,57 110,923,06 32,332,52 78,590,54
20. Totals (Lines 10 to 19) 296,037,740 286,153,063 5.9	
business only 26,733,984 12,409,840 22 Commissions and expense allowances on reinsurance assumed 37,642,100 37,314,628	
22. Commissions and expense allowances on reinsurance assumed 23. General insurance expenses 47,642,100 37,314,628 24. Insurance taxes, licenses and fees, excluding federal income taxes 5,393,737 5,930,503 25. Increase in loading on deferred and uncollected premiums (236,777) (1,141,187) (1,141,187) (26. Net transfers to or (from) Separate Accounts net of reinsurance (64,153,743) (65,861,412) (1,27. Aggregate write-ins for deductions (23,287,366) (2,603,584) (2,603,	
23. General insurance expenses	
24. Insurance taxes, licenses and fees, excluding federal income taxes 5,393,737 5,930,503 25. Increase in loading on deferred and uncollected premiums (286,777) (1,141,187) 26. Net transfers to or (from) Separate Accounts net of reinsurance (64,153,743) (65,861,412) (1,273,366) (2,603,584) 27. Aggregate write-ins for deductions (3,287,366) (2,603,584) 28. Totals (Lines 20 to 27) 308,129,675 272,201,851 5 29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28) (62,210,610 56,509,429 1 30. Dividends to policyholders (3,287,366) (2,603,584) (2,603,584) (3,287,366) (2,603,584) (3,287,366) (2,603,584) (3,287,366) (2,603,584) (2,603,584) (3,287,366) (2,603,584	
25. Increase in loading on deferred and uncollected premiums	(3,351,73 (119,415,40 (6,353,96 556,250,57 110,923,06 32,332,52 78,590,54
26. Net transfers to or (from) Separate Accounts net of reinsurance	(119,415,40 (6,353,96 556,250,57 110,923,06 32,332,52 78,590,54 (11,534,17
27. Aggregate write-ins for deductions (3,287,366) (2,603,584) 28. Totals (Lines 20 to 27) 308,129,675 272,201,851 5 29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28) 62,210,610 56,509,429 1 30. Dividends to policyholders. 31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30) 62,210,610 56,509,429 1 32. Federal and foreign income taxes incurred (excluding tax on capital gains) 10,307,954 13,711,331 33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) 51,902,656 42,798,098 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ 1,902,656 42,798,098 1,51,902,656 42,798,098 35. Net income (Line 33 plus Line 34) 199,089 (13,382,192) (4,378,692) (6,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) (7,42,78,692) <td< td=""><td>(6,353,96 556,250,57 110,923,06 32,332,52 78,590,54 (11,534,17</td></td<>	(6,353,96 556,250,57 110,923,06 32,332,52 78,590,54 (11,534,17
28. Totals (Lines 20 to 27)	556,250,57 110,923,06 110,923,06 32,332,52 78,590,54 (11,534,17
29. Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28) 30. Dividends to policyholders. 31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30) 32. Federal and foreign income taxes incurred (excluding tax on capital gains) 33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$ 3,935,033 (excluding taxes of \$ 199,089 transferred to the IMR) 35. Net income (Line 33 plus Line 34) 36. Capital and surplus, December 31, prior year 37. Net income (Line 35) 38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (396,424) (188,847) (5,396,549) (12,810,907) 39. Change in net unrealized foreign exchange capital gain (loss)	110,923,06 110,923,06 32,332,52 78,590,54 (11,534,17
Line 28)	110,923,06 32,332,52 78,590,54
31. Net gain from operations after dividends to policyholders and before federal income taxes (Line 29 minus Line 30) 32. Federal and foreign income taxes incurred (excluding tax on capital gains) 33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$	32,332,52 78,590,54 (11,534,17
minus Line 30)	32,332,52 78,590,54 (11,534,17
32. Federal and foreign income taxes incurred (excluding tax on capital gains) 10,307,954 13,711,331 33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) 51,902,656 42,798,098 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$	32,332,52 78,590,54 (11,534,17
33. Net gain from operations after dividends to policyholders and federal income taxes and before realized capital gains or (losses) (Line 31 minus Line 32) 34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$	78,590,54
realized capital gains or (losses) (Line 31 minus Line 32)	(11,534,17
34. Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital gains tax of \$	(11,534,17
gains tax of \$. , ,
transferred to the IMR)	. , ,
35. Net income (Line 33 plus Line 34)	67 050 07
36. Capital and surplus, December 31, prior year 1,573,159,890 1,546,673,795 1,5 37. Net income (Line 35) 38,520,464 38,419,406 38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (396,424) (188,847) (5,396,549) 39. Change in net unrealized foreign exchange capital gain (loss) (12,810,907) 21,586,212	U1,U30,3/
37. Net income (Line 35) 38,520,464 38,419,406 38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (396,424) (188,847) (5,396,549) 39. Change in net unrealized foreign exchange capital gain (loss) (12,810,907) 21,586,212	
38. Change in net unrealized capital gains (losses) less capital gains tax of \$ (396,424) (188,847) (5,396,549) (21,810,907) (21,810,907) (21,586,212)	1,546,673,79
39. Change in net unrealized foreign exchange capital gain (loss)	67,056,37
1 40 Change in not deterred income tay	36,645,24
41. Change in nonadmitted assets	
42. Change in liability for reinsurance in unauthorized and certified companies	
44. Change in asset valuation reserve	(15 107 88
47. Other changes in surplus in Separate Accounts Statement	
49. Cumulative effect of changes in accounting principles	
50. Capital changes:	
50.2 Transferred from surplus (Stock Dividend)	
51.1 Fald III	
52. Dividends to stockholders	
53. Aggregate write-ins for gains and losses in surplus	
	(9,678,93
	(9,678,93
DETAILS OF WRITE-INS	(9,678,93
	(9,678,93 26,486,09 1,573,159,89
	(9,678,93 26,486,09 1,573,159,89
08.303	(9,678,93 26,486,09 1,573,159,89 2,206,53
LOGISSO. COMMISS OF TEMBRING WHICHIS FOR LINE O.S BOTH OVERHOW DADE	(9,678,93 26,486,09 1,573,159,89
	(9,678,93 26,486,09 1,573,159,89
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015)	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscellaneous charges to operations 479,785 .760,431	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscellaneous charges to operations 479,785 760,431 2703.	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08 1,315,12
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscel laneous charges to operations 479,785 760,431 2703. 2798. Summary of remaining write-ins for Line 27 from overflow page (3,287,366) (2,603,584)	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08 1,315,12
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscel laneous charges to operations 479,785 760,431 2703. 2798. Summary of remaining write-ins for Line 27 from overflow page (3,287,366) (2,603,584) 2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above) (3,287,366) (2,603,584) 5301. Reinsurance ceded adjustment (3,767,151) (3,364,015)	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08 1,315,12 (6,353,96
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscellaneous charges to operations 479,785 760,431 2703. 2798. Summary of remaining write-ins for Line 27 from overflow page (3,287,366) (2,603,584) 2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above) (3,287,366) (2,603,584) 5301. Reinsurance ceded adjustment (3,767,151) (3,364,015) 5302. Other changes in surplus (4,716,702)	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08 1,315,12 (6,353,96
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscellaneous charges to operations 479,785 760,431 2703. 2798. Summary of remaining write-ins for Line 27 from overflow page (3,287,366) (2,603,584) 2799. Totals (Lines 2701 through 2703 plus 2798)(Line 27 above) (3,767,151) (3,364,015) 5301. Reinsurance ceded adjustment (3,767,151) (3,364,015) 5302. Other changes in surplus (4,716,702) 5303.	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08 1,315,12 (6,353,96
08.399. Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above) 1,139,521 1,084,489 2701. Reinsurance ceded adjustment (3,767,151) (3,364,015) 2702. Miscellaneous charges to operations 479,785 .760,431 2703. 3.2798. Summary of remaining write-ins for Line 27 from overflow page 3.2798. Summary of remaining write-ins for Line 27 above) (3,287,366) (2,603,584) 5301. Reinsurance ceded adjustment (3,767,151) (3,364,015) 5302. Other changes in surplus (4,716,702) 5303. (4,716,702) 5398. Summary of remaining write-ins for Line 53 from overflow page 4.716,702	(9,678,93 26,486,09 1,573,159,89 2,206,53 8,91 2,215,44 (7,669,08 1,315,12 (6,353,96 (7,669,08 (2,009,85

CASH FLOW

		1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
	Cash from Operations			
1. F	remiums collected net of reinsurance	165,691,893	134,243,685	292,148,097
2. N	let investment income	139,052,900	140 , 151 , 105	289,336,526
3. N	fiscellaneous income	57,078,002	15,408,281	61,053,400
4. T	otal (Lines 1 to 3)	361,822,795	289,803,071	642,538,023
5. E	enefit and loss related payments	330,613,411	328,679,995	597,589,842
6. N	let transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(64,258,755)	(65,432,117)	(119,558,213)
7. (Commissions, expenses paid and aggregate write-ins for deductions	90,481,784	40,604,174	106,946,232
8. E	lividends paid to policyholders			
9. F	ederal and foreign income taxes paid (recovered) net of \$			
	gains (losses)	15,433,012	14,248,121	26,812,351
10. T	otal (Lines 5 through 9)	372,269,452	318,100,173	611,790,212
11. N	let cash from operations (Line 4 minus Line 10)	(10,446,657)	(28,297,102)	30,747,811
	Cash from Investments			
12. F	Proceeds from investments sold, matured or repaid:			
1	2.1 Bonds	389,973,677	628,312,644	1,155,256,354
1	2.2 Stocks	3,252,277	5,048,210	5,609,160
1	2.3 Mortgage loans	41,038,630	43,503,172	131,266,638
1	2.4 Real estate			
1	2.5 Other invested assets	36,242,498	36,416,739	59,249,327
1	2.6 Net gains or (losses) on cash, cash equivalents and short-term investments	172,601	(127,284)	833,167
1	2.7 Miscellaneous proceeds	(34,526,677)	22,807,995	32,770,652
1	2.8 Total investment proceeds (Lines 12.1 to 12.7)	436,153,006	735,961,476	1,384,985,298
13. (cost of investments acquired (long-term only):			
1	3.1 Bonds	338,370,122	671,561,301	1, 154, 754, 859
1	3.2 Stocks	974,929	514,092	3,220,467
1	3.3 Mortgage loans	20,759,267	46,717,184	96,999,683
	3.4 Real estate			
	3.5 Other invested assets		14,238,213	34,888,528
	3.6 Miscellaneous applications	(13,689,114)	(67,705,484)	568,271
	3.7 Total investments acquired (Lines 13.1 to 13.6)	372,564,840	665,325,306	1,290,431,808
	let increase (or decrease) in contract loans and premium notes	(2,767,380)	1,262,647	4,176,044
	let cash from investments (Line 12.8 minus Line 13.7 and Line 14)	66,355,546	69,373,523	90,377,446
	Cash from Financing and Miscellaneous Sources			
16. C	cash provided (applied):			
1	6.1 Surplus notes, capital notes			
	6.2 Capital and paid in surplus, less treasury stock			
	6.3 Borrowed funds			
	6.4 Net deposits on deposit-type contracts and other insurance liabilities		(4.144.727)	1.721.027
	6.5 Dividends to stockholders			
	6.6 Other cash provided (applied)	(95,220,039)	54,692,797	20,183,093
	let cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5	(======================================	,,	,,
	plus Line 16.6)	(88,888,024)	50,548,070	21,904,120
	RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS			
18. N	let change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17)	(32,979,135)	91,624,491	143,029,377
19. C	ash, cash equivalents and short-term investments:			
1	9.1 Beginning of year	304,328,282	161,298,905	161,298,905
1	9.2 End of period (Line 18 plus Line 19.1)	271,349,147	252,923,396	304,328,282
	plemental disclosures of cash flow information for non-cash transactions:	<u> </u>	т	
	Bank loan rollovers	9,162,721 8,783,470	13,256,716	36,780,440
20.0003	Stock conversions	1,307,260	220,000	220,000
	Net investment income payment in-kind bonds			203,833 589,861
20.0006	Return of capital	11,774		
	Mortgage loans to other invested assets			2,204,096 1,298,030
20.0000	VIIII IIII UUU UUUU UUUU UUUU UUUU UUUU			1,230,000

EXHIBIT 1

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

	DIRECT PREMIUMS AND DEPOSIT-TYPE	CONTRACTS	2	3
		Current Year	Prior Year	Prior Year Ended
		To Date	To Date	December 31
1.	Industrial life			
2.	Ordinary life insurance	106,351,383	110,099,958	218,073,772
3.	Ordinary individual annuities	571,028,355	105,295,756	494,560,569
4.	Credit life (group and individual)			
5.	Group life insurance	25,520	37,205	664,940
	·			
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	677,405,258	215,432,919	713,299,281
12.	Deposit-type contracts			
13.	Total	677,405,258	215,432,919	713,299,281
	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)			
	, , , , , , , , , , , , , , , , , , , ,	· L	L.	

TABLE OF CONTENTS

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

Note 1 - Summary of Significant Accounting Policies and Going Concern

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 (the Department).

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

			F/S	F/S				
		SSAP#	Page	Line #	_	2018	-	2016
NET INC	COME							
(1)	State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$	38,520,464	\$	67,056,370
(2)	State prescribed practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A		-		-
(3)	State permitted practices that increase/(decrease) NAIC							
	SAP:	N/A	N/A	N/A				-
(4)	NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$	38,520,464	\$	67,056,370
SURPLU	JS							
(5)	State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$	1,589,836,703	\$	1,573,159,890
(6)	State prescribed practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A		-		-
(7)	State permitted practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A				<u>-</u>
(8)	NAIC SAP (5-6-7=8)	XXX	XXX	XXX	\$	1,589,836,703	\$	1,573,159,890

- Use of estimates in the preparation of the financial statements No change
- Accounting policy:
 - (1-5) No change
 - (6) For loan-backed and structured securities, such as asset-backed securities, mortgage-backed securities, including residential mortgage-backed securities and commercial mortgage-backed securities, and structured securities, including collateralized debt obligations, amortization or accretion is revalued quarterly based on the current estimated cash flows, using either the prospective or retrospective adjustment methodologies.

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

Going concern - No change

Note 2 – Accounting Changes and Corrections of Errors

a. For the six months ended June 30, 2018, corrections of prior years' errors were recorded in capital and surplus, net of tax:

			Incre	ase (Decrease) to	
	Pi	rior		Current	Asset
	Ye	ars'		Year	or Liability
	Net In	ncome		Surplus	Balances
Partnerships and limited liability companies	\$	-	\$	(1,959,401)	\$ (1,959,401)
Deferred income tax		-		(15,913,941)	 (15,913,941)
Total	\$	-	\$	(17,873,342)	

Of the \$17,873,342 decrease to surplus for prior years' errors, \$15,913,941 was recorded as a change in deferred taxes and \$1,959,401 was recorded as a change in unrealized capital (losses) gains, net of tax in the Statutory Statements of Changes in Surplus.

For the six months ended June 30, 2017, corrections of prior years' errors were recorded in capital and surplus, net of tax:

		Increa	se (Decrease) to:	
	Prior		Current	Asset
	Years'		Year	or Liability
	Net Income		Surplus	Balances
Partnerships and limited liability companies	\$ _	\$	(227,387)	\$ (227,387)
Cash, cash equivalents and short-term investments	(447,929)		(447,929)	(447,929)
Other than invested assets	 (2,921,931)		(2,921,931)	 (2,921,931)
Total	\$ (3,369,860)	\$	(3,597,247)	

Of the \$3,597,247 decrease to surplus for prior years' errors, \$3,369,860 was recorded as prior period adjustments with an offset of \$227,387 that was recorded as a change in nonadmitted assets in the Statutory Statement of Changes in Surplus.

b. Adoption of new accounting standards

In June 2016, the NAIC adopted substantive revisions to Statements of Statutory Accounting Principles (SSAP) No. 51R, Life Contracts, to incorporate references to the Valuation Manual (VM) and to facilitate the implementation of principles-based reserving (PBR), which were effective on January 1, 2017. The adoption of PBR only applies to new life insurance policies issued after January 1, 2017, however the Company plans to adopt these revisions to SSAP No. 51R using the 3-year phased in approach by no later than January 1, 2020. The Company currently uses formulas and assumptions to determine reserves as prescribed by state laws and regulations. Under PBR, the Company will be required to hold the higher of (a) the reserve using prescribed factors and (b) the PBR reserve which considers a wide range of future economic conditions, computed using justified company experience factors, such as mortality, policyholder behavior and expenses. The Company is currently assessing the impact of these modifications on the Company's financial statements.

In January 2017, the NAIC adopted modifications to SSAP No. 86, Derivatives, which were effective January 1, 2018. The modifications maintain gross reporting of derivative variation margin as a separate unit of account, rather than characterizing as a legal settlement with mark-to-market changes recorded in surplus. Regarding exchange traded futures, these modifications further clarified that variation margin and mark-to-market changes should be recorded in the same manner as all other derivative instruments. Starting in 2018, the Company records mark-to-market gains and losses from exchange traded futures as unrealized gains or losses instead of realized gains or losses and grosses up the derivatives and collateral line items on its financial statements. These modifications did not impact total surplus and did not have a material impact on the Company's financial statements.

In April 2017, the NAIC adopted modifications to SSAP No. 69, Statement of Cash Flows, to adopt ASU No. 2016-15, Classification of Certain Cash Receipts and Cash Payments, in its entirety, effective January 1, 2018 on a retrospective basis. In June 2017, the NAIC adopted additional modifications to SSAP No. 69 to incorporate portions of ASU No. 2016-18, Restricted Cash, effective December 31, 2019 with early adoption permitted. The initial modifications address the classification and disclosure of certain items within the statements of cash flows. Upon adoption, proceeds from the settlement of the Company's corporate owned life insurance policies were classified as investing activities instead of operating activities. Additionally, the Company elected to apply the nature of distribution approach to subsidiary, controlled or affiliated equity method investments and the cumulative earnings approach to all other equity method investments in determining whether distributions received from equity method investees are returns on investment, recorded as operating activities, or returns of investment, recorded as investing activities. Effective January 1, 2018, the Company early adopted on a retrospective basis, the second modification by adding restricted cash, cash equivalents and short-term investments to the existing statutory disclosure requirements in SSAP No.1, Accounting Policies, Risks & Uncertainties and Other Disclosures. Although the adoption of these modifications required reclassification between investing and operating cash flows, they did not have a material impact on the Company's financial statements.

In October 2017, the NAIC adopted revisions to SSAP No. 68, Business Combinations and Goodwill, to include information about impairment triggering events that previously existed in SSAP No. 90, Impairment or Disposal of Real Estate Investments, to ensure that the impairment process is discussed in it's entirety within SSAP No. 68. Specifically the NAIC modified paragraph 8 of SSAP No. 68 to include information about impairment triggering events affecting long-lived assets which include; a) a significant decrease in its fair value, b) a significant adverse change in the extent or manner in which the asset is being utilized, c) a significant adverse change in legal factors or in the business climate that could potentially affect its value, d) an accumulation of costs that significantly exceed the amount originally anticipated for acquisition or construction, e) a current period operating or cash flow loss combined with a history of operating or cash flow losses, or a projection or forecast demonstrating continuous loss associated with its use, and f) a current expectation that, more likely than not, the asset will be sold or disposed of before the end of its estimated useful life. The Company's financial statements will not be impacted by the incorporation of information relating to impairment triggering events of long-lived assets. The Company continues to assess goodwill impairment in accordance with the revisions to SSAP No. 68.

In November 2017, the NAIC adopted modifications to SSAP No. 100R, Fair Value, allowing NAV per share as a practical expedient to fair value, either when specifically named in a SSAP or when the investee qualifies as an investment company, which were effective January 1, 2018. These modifications adopted, with modification, applicable U.S. GAAP, allowing greater consistency with Financial Accounting Standards Board's allowable use of NAV. These modifications also included the U.S. GAAP requirement to report instruments measured at NAV as a practical expedient outside of the fair value hierarchy disclosure as a separate item, along with a description of the terms and conditions of redemption features, amounts of unfunded commitments, restrictions to sell, and various other items. As a result of these modifications, the NAIC issued SSAP No. 100R, Fair Value. The adoption of these modifications did not have an impact on the Company's financial statements.

In February 2018, the NAIC adopted modifications to SSAP No. 9, Subsequent Events, and SSAP No. 101, Income Taxes, to temporarily allow any revised tax calculations resulting from the Tax Cuts and Job Act that occurred after statutory filing, to be classified as changes in estimate, thus avoiding classification as Type 1 subsequent events. Under SSAP No. 9, reporting entities are generally required to amend their filed statutory financial statements in their domestic state to ensure that the statutory financial statements and the audited financial statements are consistent if a Type 1 event is identified after the statutory financial statements are filed, but before the audited financial statements are issued. The adoption of this modification did not impact the Company's financial statements.

Note 3 - Business Combinations and Goodwill - No change

Note 4 - Discontinued Operations - No change

Note 5 - Investments

- 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 OTTI classified on the following bases for recognizing OTTI:

			(1)			(2)			(3)
			Amortized		D	OTTI ecogniz	zod		
			Cost Basis			in Los			
		ŀ	Before	(2		(2			Fair Value
			OTTI	Inte		•	n-interest		1-(2a+2b)
		<u> </u>	<u> </u>						. (20. 20)
OTT	ΓI 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	_	84,116		-		27,511		56,605
C.	Total first quarter	\$	84,116	\$	-	\$	27,511	\$	56,605
	I recognized in the second quarter								
d.	Intent to sell	\$	-	\$	-	\$	-	\$	-
e.	Inability or lack of intent to retain the investment								
	in the security for a period of time sufficient to recover the amortized cost basis		20 540				20.402		4 205
£		φ.	39,548	Φ.		Φ.	38,183	Φ.	1,365
f.	Total second quarter	\$	39,548	\$		\$	38,183	\$	1,365
OTT	I recognized in the third quarter								
g.	Intent to sell	\$	-	\$	-	\$	-	\$	-
h.	Inability or lack of intent to retain the investment								
	in the security for a period of time sufficient to								
	recover the amortized cost basis	_			-				
i.	Total third quarter	\$		\$	-	\$	-	\$	
	I recognized in the fourth quarter	_		_					
j.	Intent to sell	\$	-	\$	-	\$	-	\$	-
k.	Inability or lack of intent to retain the investment								
	in the security for a period of time sufficient to recover the amortized cost basis								
l.	Total fourth quarter	\$		\$		\$		\$	<u>-</u>
1.	i otal loultii qualtei	φ	-	φ		φ		φ	
m.	Annual aggregate total			\$	-	\$	65,694		

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
07386HEN7	\$ 2,548	\$ 136	\$ (2,412) \$ 136	\$ 94	March 31, 2018
79548KXQ6	81,567	56,468	(25,099	56,468	56,792	March 31, 2018
76110H4M8	2,014	579	(1,435	579	504	June 30, 2018
863579DV7	37,534	786	(36,748	786	3,932	June 30, 2018
Totals	\$ 123,664	\$ 57,969	\$ (65,694	57,969	\$ 61,321	

- (4) As of June 30, 2018, 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
 \$ (2,133,206)

 2. 12 months or longer
 \$ (1,833,458)

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

 1. Less than 12 months
 \$ 176,763,629

 2. 12 months or longer
 \$ 47,965,567

- (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.

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

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

The carrying value, which is at cost, reported in the Statutory Statements of Financial Position for repurchase agreements approximates the fair value.

(2) Type of Repo Trades Used

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

(3) Original (Flow) & Residual Maturity

			FIRST Q	UA	RTER			SECOND (QU	ARTER	
		1	2		3	4	5	6		7	8
					AVERAGE					AVERAGE	
					DAILY	ENDING				DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	Open – No Maturity	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
b.	Overnight	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
c.	2 Days to 1 Week	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
d.	> 1 Week to 1 Month	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
e.	> 1 Month to 3 Months	\$ -	\$ 170,975,000	\$	97,700,000	\$ 170,975,000	\$ -	\$ 58,195,000	\$	40,288,846	\$ -
f.	> 3 Months to 1 Year	\$ 58,872,500	\$ 232,277,500	\$	132,946,071	\$ 58,872,500	\$ 175,000,000	\$ 233,070,000	\$	192,867,692	\$ 233,070,000
g.	> 1 Year	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -

			THIRD Q	UA	ARTER				FOURTH (QUA	ARTER	
		9	10		11		2	13	14		15	16
					AVERAGE						AVERAGE	
					DAILY	ENI	DING				DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BAL	ANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a. Open -	- No Maturity	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
b. Overnig	ght	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
c. 2 Days	s to 1 Week	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
d. > 1 We	eek to 1 Month	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
e. > 1 Mo	onth to 3 Months	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
f. > 3 Mo	onths to 1 Year	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
g. > 1 Yea	ar	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -

⁽⁴⁾ The company did not have any repurchase agreements where securities sold and/or acquired resulted in default as of March 31, 2018.

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

			FIRST Q	UARTER			SECOND	QUARTER	
		1	2	3	4	5	6	7	8
				AVERAGE				AVERAGE	
				DAILY	ENDING			DAILY	ENDING
		MINIMUM	MAXIMUM	BALANCE	BALANCE	MINIMUM	MAXIMUM	BALANCE	BALANCE
a.	BACV	XXX	XXX	XXX	\$ 229,847,500	XXX	XXX	XXX	\$ 233,070,000
b.	Nonadmitted - Subset of BACV	XXX	XXX	XXX	\$ -	XXX	XXX	XXX	\$ -
c.	Fair Value	\$ 229,847,500	\$ 232,277,500	\$ 230,646,071	\$ 229,847,500	\$ 233,070,000	\$ 233,195,000	\$ 233,156,538	\$ 233,070,000

			THIRD Q	UARTER			FOURTH (QUARTER	
		9	10	11	12	13	14	15	16
				AVERAGE				AVERAGE	
				DAILY	ENDING			DAILY	ENDING
		MINIMUM	MAXIMUM	BALANCE	BALANCE	MINIMUM	MAXIMUM	BALANCE	BALANCE
a.	BACV	XXX	XXX	XXX	\$ -	XXX	XXX	XXX	\$ -
b.	Nonadmitted - Subset of BACV	XXX	XXX	XXX	\$ -	XXX	XXX	XXX	\$ -
C.	Fair Value	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

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

ENDING BALANCE

2 5 3 4 6 NON-NONE NAIC 1 NAIC 2 NAIC 3 NAIC 4 NAIC 5 NAIC 6 ADMITTED Bonds - BACV 233,070,000 Bonds - FV 233.070.000 LB & SS - BACV LB & SS - FV Preferred Stock - BACV Preferred Stock - FV Common Stock Mortgage Loans - BACV Mortgage Loans - FV Real Estate - BACV Real Estate - FV Derivatives - BACV Derivatives - FV Other Invested Assets - BACV Other Invested Assets - FV Total Assets - BACV 233 070 000 Total Assets - FV

p=a+c+e+g+h+j+l+n q=b+d+f+g+i+k+m+o

(7) Collateral Received - Secured Borrowing

			FIRST Q	UA	RTER			SECOND (QUA	ARTER	
		1	2		3	4	5	6		7	8
					AVERAGE					AVERAGE	
					DAILY	ENDING				DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	Cash	\$ 39,204	\$ 2,417,949	\$	1,243,625	\$ 2,417,949	\$ 1,507,817	\$ 3,243,378	\$	2,337,512	\$ 2,902,655
b.	Securities (FV)	\$ 173,122,939	\$ 232,310,358	\$	226,856,437	\$ 230,493,641	\$ 233,239,490	\$ 233,972,308	\$	233,676,389	\$ 233,972,308

			THIRD Q	U/	ARTER					FOURTH	QU	ARTER	
		9	10		11	12		13		14		15	16
					AVERAGE							AVERAGE	
					DAILY	ENDING						DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE		MINIMUM		MAXIMUM		BALANCE	BALANCE
a.	Cash	\$ -	\$ -	\$	-	\$ -	,,	\$ -	9	-	\$	-	\$ -
b.	Securities (FV)	\$ -	\$ -	\$	-	\$ -	,	\$ -	9	-	\$	-	\$ -

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

ENDING BALANCE

		1	2	3	4	5	6	7	8 DOES NOT
									QUALIFY
									AS
		NONE	NAIC 1	NAIC 2	NAIC 3	NAIC 4	NAIC 5	NAIC 6	ADMITTED
a.	Cash	\$ 2,902,655	\$ -	\$ -	\$ -	\$ -	\$	\$ -	\$ -
b.	Bonds - FV	-	233,972,308	-	-	-	-	-	-
c.	LB & SS - FV	-	-	-	-	-	-	-	-
d.	Preferred Stock - FV	-	-	-	-	-	-	-	-
e.	Common Stock	-	-	-	-	-	-	-	-
f.	Mortgage Loans - FV	-	-	-	-	-	-	-	-
g.	Real Estate - FV	-	-	-	-	-	-	-	-
h.	Derivatives - FV	-	-	-	-	-	-	-	-
i.	Other Invested Assets - FV	-	-	-	-	-	-	-	-
j.	Total Collateral Assets - FV (Sum of a through i)	\$ 2,902,655	\$ 233,972,308	\$ -	\$ -	\$ -	\$ -	\$ 	\$ -

(9) Allocation of Aggregate Collateral by Remaining Contractual Maturity

		FAIR VALUE
a.	Overnight and Continuous	\$ -
b.	30 Days or Less	\$ 175,000,000
C.	31 to 90 Days	\$ 58,070,000
Ы	> 90 Days	\$ _

- (10) The company did not have any repurchase agreements where cash collateral received was reinvested as of March 31, 2018.
- (11) Liability to Return Collateral Secured Borrowing (Total)

			FIRST Q	UA	RTER			SECOND	QUA	ARTER	
		1	2		3	4	5	6		7	8
					AVERAGE					AVERAGE	
					DAILY	ENDING				DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	Cash (Collateral – All)	\$ 39,204	\$ 2,417,949	\$	1,243,625	\$ 2,417,949	\$ 1,507,817	\$ 3,243,378	\$	2,337,512	\$ 2,902,655
b.	Securities Collateral (FV)	173,122,939	232,310,358		226,856,437	230,493,641	\$ 233,239,490	233,972,308		233,676,389	233,972,308

			THIRD Q	UA	ARTER			FOURTH (Qι	JARTER	•
		9	10		11	12	13	14		15	16
					AVERAGE					AVERAGE	
					DAILY	ENDING				DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	Cash (Collateral – All)	\$ -	\$	\$	-	\$ -	\$	\$ -	\$	-	\$ -
b.	Securities Collateral (FV)	\$ -	\$ _	\$	_	\$ _	\$ _	\$ -	\$	-	\$ -

- 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.
- h. Repurchase Agreements Transactions Accounted for as a Sale: The Company did not have any repurchase agreements transactions accounted for as a sale.
- 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.
- 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.
- 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.
- o. Structured notes:

A structured note is a direct debt issuance by a corporation, municipality, or government entity, ranking pari-passu with the issuer's other debt issuance of equal seniority where either: (a) the coupon and/or principal payments are linked, in whole or in part, to prices or payment streams from index or indices, or assets deriving their value from other than the issuer's credit quality, or (b) the coupon

and/or principal payments are leveraged by a formula that is different from either a fixed coupon, or a non-leveraged floating rate coupon linked to an interest rate index, including but not limited to the London Interbank Offered Rate (LIBOR) or the prime rate. As structured notes are issuer obligations without a trust, they are within the scope of SSAP No. 26, "Bonds, Excluding Loan-backed and Structured Securities" (SSAP No. 26). Structured notes are different than the asset backed structured securities, which are accounted for under SSAP No. 43R, "Revised - Loan-Backed and Structured Securities" (SSAP No. 43R), as they lack either a trust or assets backing them. The disclosure below allows regulators to assess the volume of activity in structured notes and to determine whether additional accounting or reporting revisions, such as valuation and risk-based capital, are needed. To satisfy this request, the Company is required to separately identify structured notes, on a CUSIP basis and provide information by CUSIP for actual cost, fair value, book/adjusted carrying value, and whether the structured note is a mortgage-referenced security. The following sets forth the actual cost, fair value and carrying value of structured notes as of June 30, 2018:

CUSIP Identification	Actual Cost	Fair Value	Book / Adjusted Carrying Value	Mortgage- Referenced Security (YES/NO)
391164AF7	444,402	419,465	435,794	NO
Total	\$ 444,402	\$ 419,465	\$ 435,794	XXX

p. 5* Securities

Investment	Number of 5*	Securities	Aggregate	BACV	Aggregate F	air Value
	Current Year	Prior Year	Current Year	Prior Year	Current Year	Prior Year
(1) Bonds - AC	29	21	\$41,496,575	\$28,165,693	\$41,805,204	\$28,490,007
(2) LB&SS - AC	-	-	-	-	-	-
(3) Preferred Stock - AC	3	3	2,275,572	2,275,572	2,858,181	2,707,564
(4) Preferred Stock - FV	-	-	-	-	-	-
(5) Total (1+2+3+4)	32	24	\$43,772,147	\$30,441,265	\$44,663,385	\$31,197,571

AC - Amortized Cost FV - Fair Value

- q. Short Sales The Company does not engage in short sale transactions.
- r. Prepayment Penalty and Acceleration Fees

	 Six Months Ended June 30, 2018							
	 General Account	Separate Account						
Number of CUSIPS	25	N/A						
2. Aggregate Amount of Investment Income	\$ 1,593,180	N/A						

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

Note 7 - Investment Income - No change

Note 8 - Derivative Instruments - No change

Note 9 - Income Taxes - No change

Note 10 - Information Concerning Parent, Subsidiaries and Affiliates - 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, Shareholders' Dividend Restrictions and Quasi-Reorganizations - 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. The Company is not able to provide a reasonable estimate of the aggregate range of any reasonably possible losses related to these matters.

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

ote 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 2018 or 2017.
 - (3) No change
 - (4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2018 or 2017.
 - (5-7) No change
- c. Wash sales:
 - (1) In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days to enhance the Company's yield on its investment portfolio.
 - (2) The Company did not sell any securities with the NAIC Designation 3 or below through the six months ended June 30, 2018 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:

			Ju	ne 30, 2018			
						Net Asset	
	Level 1	Level 2		Level 3		(NAV)	Total
Financial assets:							
Bonds:							
Industrial and miscellaneous	-	2,612,017		3,114,914		-	5,726,931
Parent, subsidiaries and affiliates	-	1,491,017		6,541,626		-	8,032,643
Preferred stocks	1,073,910	-		153,517		-	1,227,427
Common stock - subsidiary and	17,722,107	_		-		-	17,722,107
Common stock - unaffiliated	34,608	97,902		2,690,087		-	2,822,597
Derivatives:							
Interest rate swaps	-	264,187,818		-		-	264,187,818
Options	-	16,242,042		-		-	16,242,042
Currency swaps	-	24,605,331		-		-	24,605,331
Forward contracts	-	7,303,263		-		_	7,303,263
Financial futures	-	23,068,494		-		-	23,068,494
Separate account assets	1,831,859,704	4,398		-		-	1,831,864,102
Total financial assets carried							_
at fair value/NAV	\$ 1,850,690,329	\$ 339,612,282	\$	12,500,144	\$	-	\$ 2,202,802,755
Financial liabilities:							
Repurchase agreements							
Derivatives:							
Interest rate swaps	\$ -	\$ 395,089,455	\$	-	\$	_	\$ 395,089,455
Options	-	569,393		-		-	569,393
Currency swaps	-	16,458,702		-		-	16,458,702
Forward contracts	-	910,958		-		-	910,958
Credit default swaps		16,351					16,351
Total financial liabilities carried					-		
at fair value	\$ -	\$ 413,044,859	\$	-	\$	-	\$ 413,044,859

For the period ended June 30, 2018, there were no significant transfers between Level 1 and Level 2 and the Company does not have any financial instruments that were carried at NAV as a practical expedient.

			December 31, 20	17	
				Net Asset Value	_
	Level 1	Level 2	Level 3	(NAV)	Total
Financial assets:					
Bonds:					
Special revenue	\$ -	\$ 754,875	\$ -	\$ -	\$ 754,875
Industrial and miscellaneous	-	15,815	2,213,347	-	2,229,162
Parent, subsidiaries and affiliates	-	-	6,740,295	-	6,740,295
Preferred stocks	-	-	167,887	-	167,887
Common stock - subsidiary and affiliates	17,616,664	-	-	-	17,616,664
Common stock - unaffiliated	1,725,386	-	3,274,658	-	5,000,044
Derivatives:					
Interest rate swaps	-	356,485,217	-	-	356,485,217
Options	-	20,306,086	-	-	20,306,086
Currency swaps	-	18,864,647	49,359	-	18,914,006
Forward contracts	-	451,810	-	-	451,810
Separate account assets	1,877,851,769	2,953	-	-	1,877,854,722
Total financial assets carried					
at fair value/NAV	\$ 1,897,193,819	\$ 396,881,403	\$ 12,445,546	\$ -	\$ 2,306,520,768
Financial liabilities:					
Derivatives:					
Interest rate swaps	\$ -	\$ 439,440,018	\$ -	\$ -	\$ 439,440,018
Options	_	492,606	-	-	492,606
Currency swaps	-	21,116,244	-	-	21,116,244
Forward contracts	-	3,487,799	-	-	3,487,799
Credit default swaps	-	21,801	-	-	21,801
Total financial liabilities carried					
at fair value	\$ -	\$ 464,558,468	\$ -	\$ -	\$ 464,558,468

For the year ended December 31, 2017, there were no significant transfers between Level 1 and Level 2.

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

	Balance as of 01/01/2018	Tran In	sfers	(1) Out	Gains (Losses) in Net Income	Gains (Losses) in Surplus	Purchases	Issuances	Sales	Settlements	Balance as of 6/30/2018
Financial assets:											
Bonds:											
Industrial and miscellaneous	\$ 2,213,347	\$ 998,136	\$	-	\$ 19,522	\$ (577,480)	\$ 350,040	\$ 139,872	\$ -	\$ (28,523)	\$ 3,114,914
Parent, subsidiaries and affiliates	6,740,295	-		-	-	(198,669)	-	-	-	-	6,541,626
Preferred stocks	167,887	-		(167,887)	-	(30,899)	-	184,416	-	-	153,517
Common stocks - unaffiliated	3,274,658	-		(9,855)	91,464	(396,965)	37,823	1,418,731	-	(1,725,769)	2,690,087
Currency Swaps	 49,359	-		(49,359)	-	-	-	-	-	 -	
Total financial assets	\$ 12,445,546	\$ 998,136	\$	(227,101)	\$ 110,986	\$ (1,204,013)	\$ 387,863	\$ 1,743,019	\$ -	\$ (1,754,292)	\$ 12,500,144

⁽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	fers ⁽¹	1)	(L	Gains osses) in	(I	Gains ₋osses) in										Balance as of
	 01/01/2017	In		Out	Ne	et Income		Surplus	Р	urchases	ls	suances	Sales		Se	ettlements	1	2/31/2017
Financial assets: Bonds:																		
Industrial and miscellaneous	\$ 759,384	\$ 2,096,185	\$	-	\$	63,592	\$	(208,372)	\$	3,157	\$	12,344	\$	-	\$	(512,943)	\$	2,213,347
Parent, subsidiaries and affiliates	5,773,679	-		-		-		966,616		-		-		-		-		6,740,295
Preferred stock	357,219	-		(253, 185)		-		(6,447)		70,300		-		-		-		167,887
Common stock - unaffiliated	2,235,432	-		(8,717)		(66,934)		840,463		266,213		8,201		-		-		3,274,658
Currency Swaps	 	452,576				(403,217)								-				49,359
Total financial assets	\$ 9,125,714	\$ 2,548,761	\$	(261,902)	\$	(406,559)	\$	1,592,260	\$	339,670	\$	20,545	\$	-	\$	(512,943)	\$	12,445,546

⁽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:

			June	e 30, 2018			
•						Net	Not
						Asset	Practicable
	Aggregate	Admitted				Value	(Carrying
	Fair Value	Assets	Level 1	Level 2	Level 3	(NAV)	Value)
Financial assets:							
Bonds:							
U. S. government and agencies	\$ 276,440,787	\$ 273,528,435	\$ -	\$ 276,440,787	\$ -	\$ -	\$ -
All other governments	1,347,833	1,377,279	-	1,347,833	-	-	-
States, territories and possessions	31,961,806	29,483,103	-	31,961,806	-	-	-
Political subdivisions	16,818,043	15,711,823	-	16,818,043	-	-	-
Special revenue	129,634,845	118,717,195	-	129,634,845	-	-	-
Industrial and miscellaneous	3,459,655,234	3,395,342,043	-	1,635,188,194	1,824,467,040	-	-
Parent, subsidiaries and affiliates	222,618,822	220,516,072	-	36,374,953	186,243,869	-	-
Preferred stocks	27,390,678	26,778,301	18,277,722	-	9,112,956	-	-
Common stock - subsidiary and affiliates ⁽¹⁾	17,722,107	17,722,107	17,722,107	-	-	-	-
Common stock - unaffiliated	2,822,597	2,822,597	34,608	97,902	2,690,087	-	-
Mortgage loans - commercial	801,843,958	792,827,586	-	-	801,843,958	-	-
Mortgage loans - residential	115,295,028	122,660,781	-	-	115,295,028	-	-
Cash, cash equivalents and							
short-term investments	271,349,147	271,349,147	(19,790,510)	291,139,657	-	-	-
Derivatives:							
Interest rate swaps	264,187,818	264,187,816	-	264,187,818	-	-	-
Options	16,242,042	16,242,042	-	16,242,042	-	-	-
Currency swaps	24,605,331	24,605,331	-	24,605,331	-	-	-
Forward contracts	7,303,263	7,303,263	-	7,303,263	-	-	-
Financial futures	23,068,494	23,068,494	-	23,068,494	-	-	-
Separate account assets	1,831,864,102	1,831,864,102	1,831,859,704	4,398	-	-	-
Financial liabilities:							
Repurchase agreements	233,070,000	233,070,000	-	233,070,000	-	-	-
Individual annuity contracts	4,012,079,039	3,019,361,778	-	-	4,012,079,039	-	-
Supplementary contracts	76,443,352	75,686,488	-	-	76,443,352	-	-
Derivatives:							
Interest rate swaps	395,089,455	395,089,455	-	395,089,455	-	-	-
Options	569,393	569,393	-	569,393	-	-	-
Currency swaps	16,458,702	16,458,702	-	16,458,702	-	_	-
Forward contracts	910,958	910,958	-	910,958	-	_	-
Credit default swaps	16,351	16,351	-	16,351	-	-	-
Groun dolddir Swaps	10,001	10,001	-	10,001	-	-	-

⁽¹⁾Common stock - subsidiary and affiliates does not include MML Bay State, which had a statutory carrying value of \$307,543,396.

December 31, 2017 Net Not Asset Practicable Admitted Aggregate Value (Carrying Level 2 Fair Value Assets Level 1 Level 3 (NAV) Value) Financial assets: 280,142,008 \$ 273,612,414 280,142,008 \$ \$ U. S. government and agencies All other governments 1.399.436 1.393.256 1.399.436 States, territories and possessions 33,328,102 29,874,349 33,328,102 Political subdivisions 17.422.431 15.725.129 17.422.431 Special revenue 134.747.158 120,045,284 134,747,158 Industrial and miscellaneous 3,603,123,498 3,412,083,826 1,785,309,039 1,817,814,459 Parent, subsidiaries and affiliates 277.090.387 66.146.912 210.943.475 269.585.401 Preferred stocks 27,833,567 26,560,290 18,550,421 9,283,146 Common stock - subsidiary and affiliates(1) 17.616.664 17.616.664 17.616.664 Common stock - unaffiliated 1.725.386 3.274.658 5.000.044 5.000.044 Mortgage loans - commercial 828,609,421 805,989,477 828,609,421 126.974.265 131.498.583 126.974.265 Mortgage loans - residential Cash, cash equivalents and 304,328,282 304,328,282 11,528,951 292,799,331 short-term investments Derivatives: Interest rate swaps 356.485.217 356.485.217 356.485.217 Options 20,306,086 20,306,086 20,306,086 18.914.006 18,864,647 49,359 Currency swaps 18,914,006 Forward contracts 451 810 451 810 451 810 Separate account assets 1,877,854,722 1,877,854,722 1,877,851,769 2,953 Financial liabilities: Repurchase agreements 232 277 500 232 277 500 232.277.500 3,889,804,960 Individual annuity contracts 3,889,804,960 3,039,032,181 68,512,468 67,834,126 68,512,468 Supplementary contracts Derivatives: Interest rate swaps 439,440,018 439,440,018 439,440,018 492.606 492.606 492.606 Options Currency swaps 21.116.244 21.116.244 21.116.244 Forward contracts 3,487,799 3,487,799 3,487,799 Credit default swaps 21.801 21.801 21.801

d. As of June 30, 2018 and December 31, 2017, the Company had no investments where it was not practicable to estimate fair value.

Note 21 - Other Items

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

Business risks

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

Insurance and underwriting risks

The Company prices its products based on estimated benefit payments reflecting assumptions with respect to mortality, morbidity, longevity, persistency, interest rates and other factors. If actual policy experience emerges that is significantly and adversely different from assumptions used in product pricing, the effect could be material to the profitability of the Company. 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 \$295,306,366.

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

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

Currency exchange risk

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

Credit and other market risks

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

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

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

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

Political Uncertainties

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

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

		Jı		 Months Ended une 30, 2018		
	Actual		Carrying		Fair	
Alt-A:	Cost		Value		Value	OTTI
a. Residential mortgage-backed securities	\$ 17,136,585	\$	19,231,487	\$	22,372,501	\$ 65,694
b. Commercial mortgage-backed securities	-		-		-	-
c. Collateralized debt obligations	-		-		-	-
d. Structured securities	-		-		-	-
e. Equity investments in SCAs *	961,603		1,047,696		1,216,934	-
f. Other assets	-		-		-	
g. Total	\$ 18,098,188	\$	20,279,183	\$	23,589,435	\$ 65,694

						`	Year Ended
		Dec	ember 31, 201	7		Dece	ember 31, 2017
	Actual		Carrying		Fair		
Alt-A:	 Cost		Value		Value		OTTI
a. Residential mortgage-backed securities	\$ 18,848,496	\$	20,615,798	\$	24,404,329	\$	7,692
b. Commercial mortgage-backed securities	-		-		-		-
c. Collateralized debt obligations	-		-		-		-
d. Structured securities	-		-		-		-
e. Equity investments in SCAs *	1,042,852		1,105,302		1,282,584		7,000
f. Other assets	-		-		-		
g. Total	\$ 19,891,348	\$	21,721,100	\$	25,686,913	\$	14,692

⁽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 August 13, 2018, the date the financial statements were available to be issued. No events have occurred subsequent to the date of the statement of financial position and before the date of evaluation that would require disclosure.

Note 23 - Reinsurance - No change

Note 24 - Retrospectively Rated Contracts and Contracts Subject to Redetermination

a - d. No change

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

Note 25 - Change in Incurred Losses and Loss Adjustment Expenses - No change

Note 26 - Intercompany Pooling Arrangements - No change

Note 27 - Structured Settlements - No change

Note 28 - Health Care Receivables - No change

Note 29 - Participating Policies - No change

Note 30 - Premium Deficiency Reserves - No change

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

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

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

Note 34 - Separate Accounts - No change

Note 35 - Loss/Claim Adjustment Expenses - No change

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

1.1	Did the reporting entity experience any material transactions requiring the filing of Dis Domicile, as required by the Model Act?	sclosure of Material Trans	sactions with the State of	Yes [] No [X]
1.2	If yes, has the report been filed with the domiciliary state?			_	1 No []
2.1	Has any change been made during the year of this statement in the charter, by-laws, reporting entity?	articles of incorporation,	or deed of settlement of the	•] No [X]
2.2	If yes, date of change:				
3.1	Is the reporting entity a member of an Insurance Holding Company System consistin is an insurer?] No []
3.2	Have there been any substantial changes in the organizational chart since the prior of	quarter end?		Yes [] No [X]
3.3	If the response to 3.2 is yes, provide a brief description of those changes.				
3.4	Is the reporting entity publicly traded or a member of a publicly traded group?			Yes [] No [X]
3.5	If the response to 3.4 is yes, provide the CIK (Central Index Key) code issued by the	SEC for the entity/group.			
4.1	Has the reporting entity been a party to a merger or consolidation during the period	covered by this statemen	t?	Yes [] No [X]
4.2	If yes, provide the name of the entity, NAIC Company Code, and state of domicile (us ceased to exist as a result of the merger or consolidation.	se two letter state abbrev	iation) for any entity that has		
	1 Name of Entity	2 NAIC Company Code	3 State of Domicile		
5.	If the reporting entity is subject to a management agreement, including third-party ad in-fact, or similar agreement, have there been any significant changes regarding the If yes, attach an explanation.	lministrator(s), managing e terms of the agreement	general agent(s), attorney- or principals involved? Yes	s [] No [X] N/A [
6.1	State as of what date the latest financial examination of the reporting entity was made	le or is being made		12/	/31/2014
6.2	State the as of date that the latest financial examination report became available from date should be the date of the examined balance sheet and not the date the report				/31/2014
6.3	State as of what date the latest financial examination report became available to oth the reporting entity. This is the release date or completion date of the examination r date).	eport and not the date of	the examination (balance sheet	t	/31/2016
6.4	By what department or departments?				
6.5	State of Connecticut Insurance Department Have all financial statement adjustments within the latest financial examination reporstatement filed with Departments?			s [] No [] N/A [X]
6.6	Have all of the recommendations within the latest financial examination report been	complied with?	Yes	s [X] No [] N/A [
7.1	Has this reporting entity had any Certificates of Authority, licenses or registrations (in revoked by any governmental entity during the reporting period?	cluding corporate registr	ation, if applicable) suspended o	or Yes [] No [X]
7.2	If yes, give full information:				
8.1	Is the company a subsidiary of a bank holding company regulated by the Federal Re	serve Board?		Yes [] No [X]
8.2	If response to 8.1 is yes, please identify the name of the bank holding company.				
8.3	Is the company affiliated with one or more banks, thrifts or securities firms?			Yes [X] No []
8.4	If response to 8.3 is yes, please provide below the names and location (city and state regulatory services agency [i.e. the Federal Reserve Board (FRB), the Office of the Insurance Corporation (FDIC) and the Securities Exchange Commission (SEC) and	Comptroller of the Curre	ncy (OCC), the Federal Deposit		

1	2	3	4	5	6
Affiliate Name	Location (City, State)	FRB	OCC	FDIC	SEC
Baring International Investment Limited	London, UK				YES
Barings Global Advisers Limited	London, UK				YES
Barings Securities, LLC					YES
HarbourVeiw Asset Management Corporation					YES
MML Distributors, LLC	Enfield, CT				YES
MML Investment Advisers, LLC	Enfield, CT				YES
MML Investors Services, LLC					YES
MML Strategic Distributors, LLC	Springfield, MA				YES
MMLISI Financial Alliances, LLC	Springfield, MA				YES
OC Private Capital, LLC					YES
OFI Advisors, Inc	New York, NY				YES
OFI Global Asset Management, Inc	New York, NY				YES
OFI Global Institutional, Inc.					YES
OFI Private Investments, Inc.	New York, NY				YES
OFI SteelPath, Inc.	Dallas, TX				YES
OppenheimerFunds Distributor, Inc.	New York, NY				YES
Oppenheimer Funds, Inc.	New York, NY			<u> </u>	YES
The MassMutual Trust Company, FSB	Enfield, CT		YES		
1 **					

GENERAL INTERROGATORIES

9.1	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 personal and professional relationships; (b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity; (c) Compliance with applicable governmental laws, rules and regulations;								
	(d) The prompt internal reporting of violations to an appropriate person or persons identified in the code; and								
9.11	(e) Accountability for adherence to the code. If the response to 9.1 is No, please explain:								
5.11	il the response to 3.1 is No, piease explain.								
9.2	Has the code of ethics for senior managers been amended?		Yes [] No [X]					
9.21	If the response to 9.2 is Yes, provide information related to amendment(s).								
9.3 9.31	Have any provisions of the code of ethics been waived for any of the specified officers?		Yes [] No [X]					
	FINANCIAL								
10.1	Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement?		Yes [X	1 No []					
10.2	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 othe use by another person? (Exclude securities under securities lending agreements.)		Yes [X] No []					
	Repurchase agreements, Letter stock or securities restricted as to sale - excluding FHLB Capital Stock, On deposit v	9							
12.	Amount of real estate and mortgages held in other invested assets in Schedule BA:	\$		62,464,777					
13.	Amount of real estate and mortgages held in short-term investments:								
14.1 14.2	Does the reporting entity have any investments in parent, subsidiaries and affiliates?		Yes [X] No []					
		1		2					
		Prior Year-End Book/Adjusted		rent Quarter ok/Adjusted					
		Carrying Value		rying Value					
14.21	Bonds\$	269.585.404	\$	220,516,072					
14.22	Preferred Stock\$								
14.23	Common Stock\$	295.306.366		325, 197, 341					
	Short-Term Investments \$		\$						
14.25	Mortgage Loans on Real Estate\$								
14.26	All Other\$	85.978.324	\$	72,336,024					
14.27	Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)\$	650,870,094	\$	618,049,437					
	Total Investment in Parent included in Lines 14.21 to 14.26 above\$								
15.1	Has the reporting entity entered into any hedging transactions reported on Schedule DB?		Yes [X] No []					
15.2	If yes, has a comprehensive description of the hedging program been made available to the domiciliary state?		Yes [X] No []					
	If no attach a description with this atstament								

GENERAL INTERROGATORIES

16.	For the reporting entity's securing 16.1 Total fair	t date: 	\$					
						L, Parts 1 and 2		
17. 17.1	Excluding items in Schedule E offices, vaults or safety depos custodial agreement with a qu	- Part 3 - Special Deposits it boxes, were all stocks, k ualified bank or trust comp ons, Custodial or Safekeep	s, real estate, mortga ponds and other secu pany in accordance w ping Agreements of t	age loans and inve urities, owned thro vith Section 1, III - he NAIC Financial	stments held ph ughout the curre General Examin Condition Exar	nysically in the reporting entity's ent year held pursuant to a nation Considerations, F. miners Handbook?	S	[X] No []
	Nam	1 e of Custodian(s)			Custodia	2 n Address		
	Citibank, N.A.			Chase Manhattan P	' 10001 or, New York, NY 10005			
17.2	For all agreements that do not location and a complete expla	ook, provide the name,						
	1 Name(s)	3 Explanation(s)						
17.3 17.4	Have there been any changes, If yes, give full information relati	quarter?	Yes [] No [X]				
	1 Old Custodian	New	2 Custodian	3 Date of Char	nge	4 Reason		
17.5	Investment management – Ide make investment decisions or such. ["that have access to	n behalf of the reporting er	ntity. For assets that	are managed inter		ividuals that have the authority ees of the reporting entity, not		
	Barings LLCIFM Investors Pty Ltd			U				
	17.5097 For those firms/individ		Question 17.5, do ar	ny firms/individuals		h the reporting entity (i.e.	Yes	[] No [X]
	17.5098 For firms/individuals u total assets under ma					or Question 17.5, does the	Yes	[] No [X]
17.6	For those firms or individuals li table below.	sted in the table for 17.5 w	vith an affiliation code	e of "A" (affiliated)	or "U" (unaffilia	ted), provide the information fo	r the	
	1	2		3		4		5 Investment Management
	Central Registration Depository Number	Name of Firm o	or Individual	Legal Entity Id	entifier (LEI)	Registered With		Agreement (IMA) Filed
	162754	Barings LLC IFM Investors Pty Ltd			;	SEC		NO
18.1 18.2	• '	4 issuers did not meet the nore of the following: Valid	filing requirements o	f the Purposes and	d Procedures M	anual. The majority of these	Yes	[] No [X]
19.	By self-designating 5*GI securi a. Documentation necessa b. Issuer or obligor is curre c. The insurer has an actu Has the reporting entity self-de	ary to permit a full credit are ent on all contracted intere al expectation of ultimate p	nalysis of the security st and principal paym payment of all contra	v does not exist. nents. cted interest and p	orincipal.	·	Yes	[X] No[]

GENERAL INTERROGATORIES

PART 2 - LIFE & HEALTH

۱.	Report the statement value of mortgage loans at the end of this reporting period for the following categories:	1 Amount
	1.1 Long-Term Mortgages In Good Standing	Amount
	1.11 Farm Mortgages	\$
	1.12 Residential Mortgages	\$122,660,781
	1.13 Commercial Mortgages	\$792,827,586
	1.14 Total Mortgages in Good Standing	\$915,488,367
	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	\$
.5	Total Mortgage Loans (Lines 1.14 + 1.21 + 1.34 + 1.44) (Page 2, Column 3, Lines 3.1 + 3.2)	\$ 915,488,367
.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	%
.1	Do you act as a custodian for health savings accounts?	Yes [] No [X]
.2	If yes, please provide the amount of custodial funds held as of the reporting date	\$
.3	Do you act as an administrator for health savings accounts?	Yes [] No [X]
.4	If yes, please provide the balance of the funds administered as of the reporting date	\$
1.	Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states?	Yes [X] No []
.1	If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of	Yes [] No []

SCHEDULE S - CEDED REINSURANCE Showing All New Reinsurance Treaties - Current Year to Date

			Sr	nowing All New Reinsurance Ti	eaties - Cui	rrent Year to Date			
1	2	3	4		5	6	7	8	9
									Effective
								Certified	Date of
NAIC					Т	of		Reinsurer	Certified
Company	ID	Effective		D	ic. v leir	ก		Rating	Reinsurer
NAIC Company Code	Number	Date	Name of Reinsurer	Jı	dict	d	Type of Reinsurer	(1 through 6)	Rating
					1				

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

		С	urrent Year	To Date - Alloca	ated by States a		in a confin		
1			1	Life Co	ontracts	Direct Bus	iness Only 5	6	7
1				2	3	Accident and			-
ł						Health Insurance Premiums,			
ł			Active			Including Policy, Membership		Total	
ł	States, Etc.		Status (a)	Life Insurance Premiums	Annuity Considerations	Membership and Other Fees	Other Considerations	Columns 2 Through 5	Deposit-Type Contracts
1.	Alabama	ΔΙ	(a) 	1,222,803	6,032,577	and Other Fees	Considerations	7,255,380	Contracts
	Alaska		L	32,690	1,577,586			1,610,276	
	Arizona		L	1,547,769	7,799,949			9,347,718	
4.	Arkansas	AR	L	274,559	3,679,203			3,953,762	
5.	California	CA	L	11,797,984	4,570,418			16,368,402	
	Colorado		L	1,061,823	4,735,743			5,797,566	
	Connecticut		L	4,079,850	26,079,138			30 , 158 , 988	
	Delaware		L	192,358	5,466,880			5,659,238	
	District of Columbia		L	955,889	129,418			1,085,307	
	Florida		L	10,467,363	55,387,244			65,854,607	
	Georgia		L	2,472,002	11, 171,673			13,643,675	
	Hawaii		L	1, 141, 057	2,358,546			3,499,603	
	Idaho		<u>-</u>	205,383	2,483,415				
	Illinois		<u>-</u>	3,337,265	27,008,122			30,345,387	
	Indiana		ļ	1,470,013	32,601,962			34,071,975	
	lowa		ļ	729, 147	4,338,164			5,067,311	
	Kansas			682,469	1,077,554			1,760,023	
	Kentucky		ļ	640,841	4,500,039 6,289,133			5,140,880	
	Maine			838,686				, , .	
	Maryland		L	243,673 3,616,524	2,969,532 15,235,620			3,213,205	
	Massachusetts		L	2.603.184	32, 130, 322			18,852,144	
	Michigan		L	2,569,338	32, 130, 322			34,733,506	
	Minnesota		I	2,569,338				24,626,819	
	Mississippi		LL	1,318,641	20,065,098 2,400,542			3.719.183	
	Missouri		J	1,363,357				17,392,307	
-	Montana		L	171,346	662,132			833,478	
	Nebraska		L	2, 180, 351	4,922,037			'	
-	Nevada		LL	665,947	7,616,917				
	New Hampshire		L	538,114	4,411,749			4,949,863	
	New Jersey		L	5,376,289	39,081,494			44,457,783	
	New Mexico		I	230 . 111	834.742			1.064.853	
	New York		N.	3,344,997	51,233			3,396,230	
	North Carolina		L	5,276,941	10,821,687			16,098,628	
	North Dakota			14,539	4,922,657			4,937,196	
	Ohio		L	2.798.318	14,632,134			17,430,452	
37.	Oklahoma	OK	L	1,063,080	4,210,736			5,273,816	
	Oregon		L	521,464	1,287,040			1,808,504	
39.	Pennsylvania	- PA	L	4,735,046	45,727,931			50,462,977	
40.	Rhode Island	RI	L	460,836	8,330,664			8,791,500	
41.	South Carolina	SC	L	1,872,570	10,513,292			12,385,862	
42.	South Dakota	SD	L	52,308	777,275			829,583	
43.	Tennessee	TN	L	2,364,289	25, 172,873			27,537,162	
44.	Texas	TX	L	6,415,561	21,808,165			28,223,726	
45.	Utah	UT	L	998,464	2, 192, 186			3, 190, 650	
46.	Vermont	VT	L	314,277	4,687,548			5,001,825	
47.	Virginia	VA	L	4, 151, 531	15,893,520			20,045,051	
	Washington		L	1,264,052	7,710,669			8,974,721	
	West Virginia		L	341, 151	1,509,741			1,850,892	
	Wisconsin		L	877,271	11,828,002			12,705,273	
	Wyoming		L	74,649	338,530			413, 179	
	American Samoa		N						
	Guam		N	120				120	
	Puerto Rico		L	2,025,122	2,909,092			4,934,214	
	U.S. Virgin Islands		N	1,609				1,609	
	Northern Mariana Islands		N						
	Canada		N	10, 122				10 , 122	
	Aggregate Other Aliens			72,213	F71 000 0FF			72,213	
	Subtotal		XXX	105,273,112	571,028,355			676,301,467	
90.	Reporting entity contributions for employee by plans		XXX						
91.	Dividends or refunds applied to purchase pa								
	additions and annuities		XXX		 	 		ļ	
92.	Dividends or refunds applied to shorten endo								
00	or premium paying period.		XXX						
93.	Premium or annuity considerations waived u disability or other contract provisions		XXX	696,568				696,568	
94.	Aggregate or other amounts not allocable by								
	Totals (Direct Business)		XXX	105,969,680	571,028,355			676,998,035	
	Plus Reinsurance Assumed		XXX						
	Totals (All Business)		XXX	105,969,680	571,028,355			676,998,035	
	Less Reinsurance Ceded		XXX	81,910,364	429,395,778			511,306,142	
	Totals (All Business) less Reinsurance Cede		XXX	24,059,316	141,632,577			165,691,893	
	DETAILS OF WRITE-INS		7001		,			110,101,100	
	ZZZ Other Alien		xxx	72,213				72,213	
58002.			XXX	,					
58003.			XXX						
	Summary of remaining write-ins for Line 58 t	rom							
	overflow page		XXX						
58999.	Totals (Lines 58001 through 58003 plus			70 01-				70.010	
0.40.4	58998)(Line 58 above)		XXX	72,213				72,213	
0.400			XXX		 	 	 	 	
unno			XXX		 	 	 	 	
			XXX	 	}	 	 	 	
9403.		rom							
9403.	Summary of remaining write-ins for Line 94 f	rom	XXX						
9403. 9498.			XXX						

⁽a) Active Status Counts:

L - Licensed or Chartered - Licensed Insurance carrier or domiciled RRG...

E - Eligible - Reporting entities eligible or approved to write surplus lines in the state...

N - None of the above - Not allowed to write business in the state...

PART 1 – ORGANIZATIONAL CHART

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

	Federal Tax ID	NAIC Co Code	State of Domicile
MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY	04-1590850	65935	Massachusetts
Direct & Indirect Owned Subsidiaries:			
C.M. Life Insurance Company	06-1041383	93432	Connecticut
MML Bay State Life Insurance Company	43-0581430	70416	Connecticut
CML Mezzanine Investor, LLC	06-1041383		Delaware
CML Mezzanine Investor L, LLC	06-1041383		Delaware
CML Mezzanine Investor III, LLC	06-1041383		Delaware
CML Special Situations Investor LLC	None		Delaware
MML Mezzanine Investor L, LLC	04-1590850		Delaware
Berkshire Way LLC	04-1590850		Delaware
MML Special Situations Investor LLC	None		Delaware
Timberland Forest Holding LLC	47-5322979		Delaware
Lyme Adirondack Forest Company, LLC	None		Delaware
Lyme Adirondack Timber Sales, Inc.	20-5305426		New York
Lyme Adirondack Timberlands I, LLC	None		Delaware
Lyme Adirondack Timberlands II, LLC	None		Delaware
WP-SC, LLC*	26-4441097		Delaware
MSP-SC, LLC	04-1590850		Delaware
Country Club Office Plaza LLC*	27-1435692		Delaware
Insurance Road LLC	04-1590850		Delaware
MassMutual Trad Private Equity LLC	04-1590850		Delaware
MassMutual Intellectual Property LLC	04-1590850		Delaware
EM Opportunities LLC	None		Delaware
Jefferies Finance LLC	27-0105644		Delaware
Apex Credit Partners LLC	None		Delaware
JFIN GP Adviser LLC	None		Delaware
JFIN Revolver Fund, L.P.	None		Delaware
JFIN Fund III LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware
JFAM GP LLC	None		Delaware
JFAM GP LP	None		Delaware
JFAM Loan Fund, LP	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, 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

^{*}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
JFIN LC Fund LLC	None		Delaware
JFIN Revolver CLO Holdings LLC	None		Delaware
JFIN CLO 2007 Ltd.	None		Cayman Islands
JFIN CLO 2012 Ltd.	None		Cayman Islands
JFIN CLO 2013 Ltd.	None		Cayman Islands
JFIN CLO 2014 Ltd.	None		Cayman Islands
JFIN CLO 2014-II Ltd.	None		Cayman Islands
JFIN MM CLO 2014 Ltd.*	None		Cayman Islands
JFIN CLO 2015 Ltd.*	None		Cayman Islands
Apex Credit CLO 2015-II Ltd.*	None		Cayman Islands
JFIN Revolver CLO 2014 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2015 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-III Ltd.	None		Cayman Islands
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
MassMutual Mortgage Lending LLC	None		Delaware
MassMutual Retirement Services, LLC	04-1590850		Delaware
MM Copper Hill Road LLC	04-1590850		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Mezzanine Investor, LLC	04-1590850		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2009-A	27-1379258		Delaware
MMAF Equipment Finance LLC 2011-A	45-2589019		Delaware
MML Private Placement Investment Company I, LLC	04-1590850		Delaware
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
Pioneers Gate LLC	45-2738137		Delaware
MassMutual Holding LLC	04-2854319		Delaware
Fern Street LLC	37-1732913		Delaware
First Mercantile Trust Company	62-0951563		Tennessee
Haven Life Insurance Agency, LLC	46-2252944		Delaware
MassMutual Assignment Company	06-1597528		North Carolina
MassMutual Capital Partners LLC	04-1590850		Delaware
MassMutual Ventures Holding LLC	None		Delaware
MassMutual Ventures 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
MassMutual Ventures Management LLC	None		Delaware
MassMutual Ventures SEA Management Private Limited	None		Delaware
MassMutual Ventures US I LLC	47-1296410		Delaware
MassMutual Ventures US II LLC	None		Delaware
MM Rothesay Holdco US LLC	04-1590850		Delaware
MML Investors Services, LLC	04-1590850		Massachusetts
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
LifeScore Labs, LLC	47-1466022		Massachusetts
MM Asset Management Holding LLC	45-4000072		Delaware
Barings LLC	51-0504477		Delaware
Baring Asset Management (Asia) Holdings Limited	98-0524271		Hong Kong, Special Administrative Region of China
Baring International Fund Managers (Bermuda) Limited	98-0457465		Bermuda
Baring Asset Management (Asia) Limited	98-0457463		Hong Kong, Special Administrative Region of China
Baring Asset Management Korea Limited	None		Korea
Baring SICE (Taiwan) Limited	98-0457707		Taiwan ROC
Barings Japan Limited	98-0236449		Japan
Baring Asset Management (Australia) Pty Limited	98-0457456		Australia
Barings Investment Advisors (Hong Kong) Limited	None		Hong Kong, Special Administrative Region of China
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
Barings Securities LLC	04-3238351		Delaware
Barings Guernsey Limited	98-0437588		Guernsey
Barings Europe Limited	None		United Kingdom
Barings Real Estate UK Holdings Limited	None		Delaware
BREAE AIFM LLP	None		United Kingdom
Barings Real Estate Advisers (Continental Europe) Limited	98-0654401		United Kingdom
Barings Real Estate Advisers Europe LLP	98-0654388		United Kingdom
Barings Real Estate Advisers Europe Finance LLP	98-0654412		United Kingdom
Barings Real Estate Advisers GmbH	98-1194368		Germany
Baring Asset Management Limited	98-0241935		United Kingdom
Barings Global Advisors Limited	98-1012393		United Kingdom
BCGSS 2 GP LLP	None		United Kingdom
Barings European Direct Lending 1 GP LLP	None		United Kingdom
Baring International Investment Limited	98-0457328		United Kingdom
Baring International Investment Management Holdings	98-0457587		United Kingdom
Baring Asset Management UK Holdings Limited	98-0457576		United Kingdom
Baring Asset Management GmbH	98-0465031		Germany

^{*}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
Baring International Fund Managers (Ireland) Limited	98-0524272		Ireland
Baring Asset Management Switzerland Sarl	None		Switzerland
Baring France SAS	98-0497550		France
Baring Fund Managers Limited	98-0457586		United Kingdom
Baring Pension Trustees Limited	98-0457574		United Kingdom
Baring Investment Services Limited	98-0457578		United Kingdom
Barings Investment Fund (LUX) GP S.à. r.l.	None		Luxembourg
Barings GPC GP S.à. r.l.	None		Luxembourg
Almack Mezzanine GP III Limited	None		United Kingdom
Almack Holding Partnership GP Limited	None		United Kingdom
Almack Mezzanine Fund Limited	None		United Kingdom
Almack Mezzanine Fund II Limited	None		United Kingdom
Barings (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
MassMutual Baring Holding LLC	04-1590850		Delaware
MassMutual Holdings (Bermuda) Limited	None		Bermuda
Agspring Holdco, LLC	None		Delaware
Chassis Acquisition Holding LLC	81-2244465		Delaware
CRA Aircraft Holding LLC*	81-4258759		Delaware
Aland Royalty Holdings LP	None		Delaware
Intermodal Holding II LLC	46-2344300		Delaware
Milestone Acquisition Holding, LLC.	47-3055009		Delaware
Red Lake Ventures, LLC	46-5460309		Delaware
Remington L & W Holdings LLC*	81-4065378		Connecticut
Solar Acquisition Holding, LLC	None		Delaware
Tamiami Citrus, LLC	None		Delaware
Teaktree Acquisition, LLC	None		Delaware
U.S. Buyer Broadcasting, LLC	47-1855920		Delaware
U.S. Pharmaceuticals Holdings I, LLC	46-0687392		Delaware
U.S. Pharmaceuticals Holdings II, LLC	47-5436800		Delaware
Validus Pharmaceuticals LLC	None		Delaware
VGS Acquisition Holding, LLC	None		Delaware
Baring Asset-Based Income Fund (US) GP, LLC	None		Delaware
Babson Capital Floating Rate Income Fund Management, LLC	04-1590850		Delaware
Babson Global Loan Feeder Management, LLC	None		Delaware
Baring North America LLC	98-0241935		Massachusetts
Barings ABIF SLP, LLC	None		Delaware
Barings CLO Investment Partners GP, 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
Barings Core Property Fund GP LLC	None		Delaware
Barings Direct Lending GP Ltd.	None		Cayman Islands
Barings Global Energy Infrastructure Advisors, LLC	None		Delaware
Barings Global Real Assets Fund GP, LLC	None		Delaware
Barings North American Private Loan Fund Management, LLC	None		Delaware
Barings TERO Management LLC	None		Delaware
Barings/LAZ Parking Fund GP LLC	None		Delaware
Benton Street Advisors, Inc.	98-0536233		Cayman Islands
BREBF I GP LLC	None		Delaware
BRECS VII GP LLC	None		Delaware
CCM Fund I REIT Manager LLC	None		Delaware
CCM Venture I GP LLC	None		Delaware
CCM Venture I REIT Manager LLC	None		Delaware
CEMF I GP LLC	None		Delaware
CHY Venture GP LLC	None		Delaware
CREF X GP LLC	None		Delaware
CREF VIII GP, LLC	None		Delaware
Great Lakes III GP, LLC	04-1590850		Delaware
Lake Jackson LLC	None		Delaware
Loan Strategies Management LLC	04-1590850		Delaware
Mezzco LLC	04-1590850		Delaware
Mezzco II LLC	02-0767001		Delaware
Mezzco III LLC	41-2280126		Delaware
Mezzco IV LLC	80-0920285		Delaware
Mezzco Australia LLC	90-0666326		Delaware
Mezzco Australia II LLC	None		Delaware
RECSA-NY GP LLC	None		Delaware
Somerset Special Opportunities Management LLC	04-1590850		Delaware
Oppenheimer Acquisition Corp.	84-1149206		Delaware
OppenheimerFunds, Inc.	13-2527171		Colorado
OppenheimerFunds Distributor, Inc.	13-2953455		New York
Oppenheimer Real Asset Management, Inc.	84-1106295		Delaware
OFI Global Institutional, Inc.	13-4160541		New York
HarbourView Asset Management Corporation	22-2697140		New York
OC Private Capital, LLC	None		Delaware
OFI Global Trust Company	13-3459790		New York
OFI International, Ltd.	None		United Kingdom
SNW Asset Management Corporation	None		Delaware
Seattle Northwest Asset Management LLC	None		Washington

^{*}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
Trinity Investment Management Corporation	25-1951632		Pennsylvania
OFI SteelPath, Inc.	84-1128397		Delaware
Shareholder Services, Inc.	84-1066811		Colorado
OFI Advisors, LLC	None		Delaware
Index Management Solutions, LLC	None		Pennsylvania
OFI Global Asset Management, Inc.	84-0765063		Delaware
OFI Private Investments Inc.	91-2036414		New York
Tremont Group Holdings, LLC	62-1210532		New York
Tremont Partners, LLC	06-1121864		Connecticut
Tremont GP, LLC	20-8215352		Delaware
Settlement Agent, LLC	90-0874510		Delaware
Tremont (Bermuda) Limited	None		Bermuda
MassMutual International LLC	04-3313782		Delaware
MassMutual Asia Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Asia Investors Ltd.	None		Hong Kong, Special Administrative Region of China
MassMutual Guardian Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Insurance Consultants Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Services Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Trustees Limited	None		Hong Kong, Special Administrative Region of China
Protective Capital (International) Limited	98-0610331		Hong Kong, Special Administrative Region of China
MassMutual Life Insurance Company	None		Japan
MassMutual Internacional (Chile) SpA	98-1033127		Chile
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
MML Mezzanine Investor II, LLC	04-1590850		Delaware
MML Mezzanine Investor III, LLC	04-1590850		Delaware
MassMutual External Benefits Group LLC	27-3576835		Delaware
Cornerstone Global REIT Corporation	20-8730751		Delaware
Other Affiliates & Funds:			
100 w. 3 rd Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	82-2432216		Delaware
300 South Tryon LLC	04-1590850		Delaware
54 West Capital LLC	20-3887968		Delaware
Almack Mezzanine Fund I LP*	None		United Kingdom
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Almack Mezzanine Fund III LP*	None		United Kingdom
Barings Asset-Based Income Fund (US) LP	36-4868350		Delaware
Barings Emerging Markets Corporate Bond Fund	None		Ireland
Barings Global Special Situations Credit Fund 1	None		Ireland
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		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

State of Domicile

Delaware Ireland Cayman Islands

Cayman Islands
Cayman Islands
Cayman Islands
Cayman Islands
Cayman Islands
Cayman Islands
Cayman Islands
Cayman Islands
Cayman Islands
Netherlands
Netherlands
Netherlands
Netherlands

Hong Kong Delaware Cayman Islands Luxembourg Delaware Ireland Cayman Islands Delaware Delaware Delaware Delaware United Kingdom Delaware Luxembourg New York Delaware Delaware Delaware Delaware Delaware Delaware Delaware

Delaware Massachusetts United Kingdom

	Federal Tax ID	NAIC Co Code
Babson Capital Loan Strategies Fund, L.P.*	37-1506417	
Barings US High Yield Bond Fund*	None	
Babson CLO Ltd. 2012-II	None	
Babson CLO Ltd. 2013-I	None	
Babson CLO Ltd. 2014-I	None	
Babson CLO Ltd. 2014-II	None	
Babson CLO Ltd. 2014-III	None	
Babson CLO Ltd. 2015-I	None	
Babson CLO Ltd. 2015-II	None	
Babson CLO Ltd. 2016-I	None	
Babson CLO Ltd. 2016-II	None	
Barings CLO Ltd. 2017-I	None	
Babson Euro CLO 2014-I BV	None	
Babson Euro CLO 2014-II BV	None	
Babson Euro CLO 2015-I BV	None	
Babson Euro CLO 2016-I BV	None	
Barings Euro Equity Income Fund	None	
Baring Focused EAFE Equity Fund	11-3789446	
Barings Global Energy Infrastructure Fund I LP	98-1332384	
Barings Global Private Loan Fund	None	
Barings Global Real Assets Fund LP	82-3867745	
Barings Global Special Situations Credit Fund 3	None	
Barings Middle Market CLO 2017-I Ltd & LLC	None	
Barings North American Private Loan Fund LP	38-4010344	
Barings RE Credit Strategies VII LP	98-1332384	
Baring International Small Cap Equity Fund	26-4142796	
Barings CLO Investment Partners LP	81-0841854	
Barings Real Estate European Value Add I SCSp*	None	
Braemar Energy Ventures I, L.P. *	None	
Barings European Core Property Fund SCSp	None	
Benchmark 2018-B2 Mortgage Trust	38-4059932	
Cornerstone Core Mortgage Venture I LP	27-1701622	
Cornerstone Enhanced Mortgage Fund I LP	45-3751572	
Cornerstone Global Real Estate LP*	20-8730751	
Cornerstone High Yield Venture LP	36-4770946	
Barings/LAZ Parking Fund LP	46-5437441	
Barings Core Property Fund LP	20-5578089	
Cornerstone Real Estate Fund VIII LP	27-0547156	
Cornerstone Real Estate Fund X LP	46-5432619	
Cornerstone Permanent Mortgage Fund III LLC	35-2531693	
Duchess VII CLO B.V.	None	

^{*}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

	Federal Tax ID NAIC Co Code	State of Domicile
E-Wise Land Venture LLC	20-3887968	Delaware
Gateway Mezzanine Partners I LP	80-0691253	Delaware
Gateway Mezzanine Partners II LP*	90-0991195	Delaware
Gillem GA Industrial LLC	04-1590850	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
Kazwell Realty Partners LLC	20-3887968	Delaware
KKR-MM Vector LP	82-1512591	Delaware
Marco Hotel LLC	46-4255307	Delaware
MM Debt Participations LLC	81-3000420	Delaware
Oakley Grove Development LLC	20-3887968	Delaware
Old Pasco Properties LLC	20-3887968	Delaware
RB Apartments LLC	82-4411267	Delaware
Reston Arboretum LLC	75-2901061	Delaware
Riva Portland LLC	30-0713071	Delaware
Rockall CLO B.V.	None	United Kingdom
Rockville Town Center LLC	54-2055778	Virginia
Somerset Special Opportunities Fund L.P.*	20-8856877	Delaware
South Pasco Properties LLC	20-3887968	Delaware
Tower Square Capital Partners II, L.P.*	30-0336246	Delaware
Tower Square Capital Partners II-A, L.P.	32-0160190	Delaware
Tower Square Capital Partners III, L.P.	41-2280127	Delaware
Tower Square Capital Partners IIIA, L.P.	41-2280129	Delaware
Tower Square Capital Partners IV-A, L.P.	80-0920367	Delaware
West 46 th Street Hotel LLC	05-1590850	Delaware
Barings Affiliates & Funds:		
Barings Emerging Markets Debt Blended Total Return Fund	None	Ireland
Barings Emerging Markets Debt Short Duration Fund	None	Ireland
Barings Emerging Markets Sovereign Debt Fund	None	Ireland
Barings Global Investment Grade Corporate Plus Fund	None	Ireland
Babson Capital Loan Strategies Master Fund LP	None	Cayman Islands
Barings Emerging Markets Debt Blended Total Return Fund	47-3758432	Massachusetts
Barings Emerging Markets Local Currency Debt Fund	47-3774453 47-3700103	Massachusetts
Barings Global High Yield Fund	47-3790192	Massachusetts
Baring Greater China Equity Fund	None	Hong Kong
Barings Total Return Bond Fund	47-3734770 47-3801860	Massachusetts Massachusetts
Barings U.S. High Yield Fund Great Lakes II LLC*	47-3801860 71-1018134	Massachusetts Delaware
Somerset Special Opportunities Master Fund LP	71-1018134 None	Cayman Islands
Wood Creek Venture Fund LLC	None 04-1590850	Delaware
WOOD CIEEK VEHILLE PUHA LLC	U4-137U63U	Delawale

^{*}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

	Federal Tax ID	NAIC Co Code	State of Domicile
Barings Real Estate Affiliates & Funds:			
50 Liberty LLC*	36-4823011		Delaware
One Harbor Shore LLC*	80-0948028		Delaware
Budapester Strasse LLC	81-4382111		Delaware
Calgary Railway Holding LLC*	82-2285211		Delaware
Cornerstone California Mortgage Fund I LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC Cornerstone California Mortgage Fund III LLC	95-4207717		California
Cornerstone Fort Pierce Development LLC*	56-2630592		Delaware
Cornerstone Permanent Mortgage Fund	45-2632610		Massachusetts
Cornerstone Permanent Mortgage Fund II	61-1750537		Massachusetts
Cornerstone Permanent Mortgage Fund III	35-2531693		Massachusetts
Cornerstone Permanent Mortgage Fund IV	61-1793735		Massachusetts
CREA Madison Member LLC	81-0890084		Delaware
CCB Montford Park LLC*	82-1563809		Delaware
Danville Riverwalk Venture, LLC	82-2783393		Delaware
Fan Pier Development LLC*	20-3347091		Delaware
Farringdon London Holdings LLC*	46-3880526		Delaware
Johnston Groves LLC	20-4819358		Delaware
Landmark Manchester Holdings LLC	81-5360103		Delaware
PACO France Logistics LLC	04-1590850		Delaware
PACO France Logistics 3 LLC	04-1590850		Delaware
Portland 400 Sixth Manager LLC	82-3393166		Delaware
Salomon Brothers Commercial Mortgage Trust 2001-MM	None		Delaware
Sawgrass Village Shopping Center LLC*	27-2977720		Delaware
Ten Fan Pier Boulevard LLC*	None		Delaware
Three PW Office Holding LLC	81-5273574		Delaware
Twenty Two Liberty LLC*	35-2484550		Massachusetts
UK LIW Manager LLC	45-4606547		Delaware
UK LIW Member LLC	45-4606547		Delaware
Unna, Dortmund Holding LLC	82-3250684		Delaware
Via Ceresio Milan LLC	82-3281588		Delaware
Washington Gateway Apartments Venture LLC*	45-5401109		Delaware
Waterford Development Associates	20-2970495		Delaware
Waterloo London Holdings LLC	47-1993493		Delaware
WeHo Domain LLC*	46-3122029		Delaware
Willowwood Lakeside Master LLC	81-1552222		Delaware
Ygnatio Valley Funding	20-5481477		Delaware
MassMutual Premier Funds:	20 0 .01 ., ,		
MassMutual Barings Dynamic Allocation Fund	45-3168892		Massachusetts
MassMutual Premier Focused International Fund	02-0754273		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

	Federal Tax ID	NAIC Co Code	State of Domicile
MassMutual Premier Main Street Fund	51-0529328		Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251		Massachusetts
MassMutual Premier Value Fund	04-3277550		Massachusetts
MassMutual Select Funds:			
MassMutual Select Diversified International Fund	14-1980900		Massachusetts
MassMutual Select Diversified Value Fund	01-0821120		Massachusetts
MassMutual Select Fundamental Growth Fund	04-3512593		Massachusetts
MassMutual Select Large Cap Value Fund	04-3513019		Massachusetts
MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MassMutual Select T. Rowe Price Retirement 2005 Fund	82-3347422		Massachusetts
MassMutual Select T. Rowe Price Retirement 2010 Fund	82-3355639		Massachusetts
MassMutual Select T. Rowe Price Retirement 2015 Fund	82-3382389		Massachusetts
MassMutual Select T. Rowe Price Retirement 2020 Fund	82-3396442		Massachusetts
MassMutual Select T. Rowe Price Retirement 2025 Fund	82-3417420		Massachusetts
MassMutual Select T. Rowe Price Retirement 2030 Fund	82-3430358		Massachusetts
MassMutual Select T. Rowe Price Retirement 2035 Fund	82-3439837		Massachusetts
MassMutual Select T. Rowe Price Retirement 2040 Fund	82-3451779		Massachusetts
MassMutual Select T. Rowe Price Retirement 2045 Fund	82-3472295		Massachusetts
MassMutual Select T. Rowe Price Retirement 2050 Fund	82-3481715		Massachusetts
MassMutual Select T. Rowe Price Retirement 2055 Fund	82-3502011		Massachusetts
MassMutual Select T. Rowe Price Retirement 2060 Fund	82-3525148		Massachusetts
MassMutual Select T. Rowe Price Retirement Balanced Fund	82-3533944		Massachusetts
MML Series Investment Funds:			
MML Series International Equity Fund	46-4257056		Massachusetts
MML Series Investment Funds II:			
MML Series II Asset Momentum Fund	47-3517233		Massachusetts
MML Series II Dynamic Bond Fund	47-3529636		Massachusetts
MML Series II Equity Rotation Fund	47-3544629		Massachusetts
MML Series II Special Situations Fund	47-3559064		Massachusetts
MassMutual RetireSMART Funds:			
MassMutual RetireSMART 2055 Fund	46-3289207		Massachusetts
MassMutual RetireSMART 2060 Fund	47-5326235		Massachusetts
MassMutual RetireSMART Conservative Fund	45-1618155		Massachusetts
MassMutual RetireSMART Growth Fund	45-1618222		Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262		Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046		Massachusetts
Oppenheimer Funds:			
OFI Pictet Global Environmental Solution Fund	81-5311583		Delaware
Oppenheimer Developing Markets Fund	93-6305075		Delaware

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

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

PART 1 – ORGANIZATIONAL CHART

Federal Tax ID NAIC Co Code State of Domicile

Oppenheimer Developing Markets Equity UCITS	None	Ireland
Oppenheimer Emerging Markets Innovators UCITS	None	Ireland
Oppenheimer Emerging Markets Local Debt UCITS	3440740DH	Ireland
Oppenheimer Emerging Markets Revenue ETF	46-2984739	Delaware
Oppenheimer ESG Revenue ETF	81-3492794	Delaware
Oppenheimer Global ESG Revenue ETF	81-3480754	Delaware
Oppenheimer Global Equity UCITS	None	Ireland
Oppenheimer Global Multi-Asset Growth Fund	47-3676235	Delaware
Oppenheimer Global Real Estate Fund	46-1604428	Delaware
Oppenheimer Global Revenue ETF	81-5010075	Delaware
Oppenheimer Global Value Equity UCITS	None	Ireland
Oppenheimer Global Unconstrained Bond Fund	82-2693880	Delaware
Oppenhemier International Growth & Income Fund	81-3136071	Delaware
Oppenheimer International Revenue ETF	81-4969331	Delaware
Oppenheimer Preferrred Securities & Income Fund	82-3462739	Delaware
Oppenheimer Russell 2000 Dynamic Multifactor ETF	82-2794856	Delaware
Oppenheimer Russell 1000 Momentum Factor ETF	82-2716323	Delaware
Oppenheimer Russell 1000 Value Factor ETF	82-2759921	Delaware
Oppenheimer Russell 1000 Low Volatility Factor ETF	82-2701797	Delaware
Oppenheimer Russell 1000 Size Factor ETF	82-2740997	Delaware
Oppenheimer Russell 1000 Quality Factor ETF	82-2732571	Delaware
Oppenheimer Russell 1000 Yield Factor ETF	82-2768498	Delaware
Oppenheimer SteelPath MLP & Energy Infrastructure Fund	82-2222426	Delaware

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

SCHEDULE Y

				PA		A - DE I AI	L OF INSURANC	∕⊏ ſ	JOLD	ING COMPANT	SISIEIVI				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
-	_	_	-	_			_				Type	If			'
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Constition			Deletion			-			
						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 Company			Massachusetts Mutual Life Insurance					
0435	Massachusetts Mut Life Ins Co	65935	04-1590850	. 3848388			(MML1C)	MA	UDP	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
	CM Life Ins Co	93432	. 06-1041383				C.M. Life Insurance Company	CT	RE	Company	Ownership	100.000	MMLIC		
0435	MML Baystate Life Ins Co	70416	43-0581430				MML Bay State Life Insurance Company	CT	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
0000			06-1041383				CML Mezzanine Investor, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		4
0000			06-1041383				CML Mezzanine Investor L, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
0000			06-1041383				CML Mezzanine Investor III, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
0000							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		·}
0000		I	04-1590850				MM Marranina Investor 1 110	DE	NIA	Massachusetts Mutual Life Insurance	Ownership	100.000	MMLIC		
0000			04-1090850	-			MML Mezzanine Investor L, LLC	VE	NI A	Company	Ownersnip	100.000	MMLIU		
0000		I	1				MM Cassial Citystians Issued 110	DE	NIA	Massachusetts Mutual Life Insurance	O-manahi-	100.000	MMLIC		
0000							MML Special Situations Investor LLC	UE	NI A	Company Massachusetts Mutual Life Insurance	Ownership	100.000	MMLIU		
0000			47-5322979				Timberland Ferent Helding IIC	DE	NIA	Company	Ownership	100.000	MML1C		
0000			47-5322979				Timberland Forest Holding LLCTimberland Forest Holding LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		·
0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC		
0000			. 41-3322313				Lyme Adirondack Forest Company, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership.	100.000	MMLIC		
0000			20-5305426				Lyme Adirondack Timber Sales, Inc.	NY	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
0000			20 3003420				Lyme Adirondack Timberlands I, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		1
0000							Lyme Adirondack Timberlands II, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
							Lymo Nati olidadi. Timbol falladi 11, EEO			Massachusetts Mutual Life Insurance	omior on p				
0000			04-1590850				Berkshire Way LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
							201101110 114, 220			Massachusetts Mutual Life Insurance					
0000			26-4441097				WP-SC, LLC	DE	NI A	Company	Ownership	81.400	MMLIC		
0000			26-4441097				WP-SC, LLC	DE	NI A	C.M. Life Insurance Company	Ownership	18.600	MMLIC		
										Massachusetts Mutual Life İnsurance					
0000			04-1590850				MSP-SC, LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			27-1435692				Country Club Office Plaza LLC	DE	NI A	Company	Ownership	88.100	MMLIC		
0000			27-1435692				Country Club Office Plaza LLC	DE	NI A	C.M. Life Insurance Company	Ownership	11.900	MMLIC		
										Massachusetts Mutual Life Insurance					
0000							EM Opportunities LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				Insurance Road LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Trad Private Equity LLC	DE	NI A	Insurance Road LLC	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Intellectual Property LLC	DE	NI A	Insurance Road LLC	Ownership	100.000	MMLIC		·
0000		I	07 040504:				1.11	DE	NII A	Massachusetts Mutual Life Insurance		50.000	188.10		1 , 1
0000			27-0105644				Jefferies Finance LLC	DE	NI A	Company	Ownership	50.000	MMLIC		
0000		1	1				Nacable to a Mantagara Londina III O	סר	NIA	Massachusetts Mutual Life Insurance	0	_100.000	188 10		
0000							MassMutual Mortgage Lending LLC	DE	NIA	Company	Ownership		MMLIC		·
0000							JFIN GP Adviser LLC	DE		Jefferies Finance LLC	Ownership	100.000	MMLIC		·
0000							JFIN GP Adviser LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000			1				JFIN Fund III LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Asset Management LLC	DE	NIA	Jefferies Finance LLC	Owner Strip	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							JFAM Loan Fund, LP	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver Holdings LLC	DE		Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver Holdings II LLC	DE	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							JFIN Co-Issuer Corporation	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Europe GP, S.a.r.I.	LUX	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Jefferies Finance Europe, SCSp	_LUX	NI A	Jefferies Finance LLC	Ownership.	100.000	MMLIC		[

							L OI INGONANC			III OOMI AII					
1	2	3	4	5	6	7	8	9	10	11	_12	13	14	15	16
											Type	If			
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filina	
		NAIC					Names of	-				Provide		Re-	
			ın			if Publicly Traded		ciliary	to	D: " 0 . " 11	Attorney-in-Fact,		1.00		
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							Jefferies Finance Business Credit LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Business Credit Fund LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN High Yield Investments LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN LC Fund LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO Holdings LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2007 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2012 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2013 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2014 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	70.000	MMLIC		
0000							JFIN CLO 2014 Ltd	CYM	NI A	Apex Credit Partners LLC	Ownership	30.000	MMLIC		
0000							JFIN CLO 2014-II Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN MM CLO 2014 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN CLO 2015 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	44.000	MMLIC		
0000							JFIN CLO 2015 Ltd	CYM	NI A	Apex Credit Partners LLC	Ownership	56.000	MMLIC		
0000							Apex Credit CLO 2015-II Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	33.000	MMLIC		
0000							Apex Credit CLO 2015-II Ltd.	CYM	NI A	Apex Credit Partners LLC	Ownership	53.000	MMLIC		
0000							JFIN Revolver CLO 2014 Ltd.	CYML	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO 2015 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO 2017 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO 2017-II Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							JFIN Revolver CLO 2017-III Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Apex Credit CLO 2016 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							Apex Credit CLO 2017 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Apex Credit CLO 2017-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				MassMutual Retirement Services, LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				MM Copper Hill Road LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-3356880				MML Distributors LLC	MA	NIA	Company	Ownership	99.000	MMLIC		
0000			04-3356880				MML Distributors LLC	MA	NI A.	MassMutual Holding LLC	Ownership	1.000	MMLIC		
							The state of the s			Massachusetts Mutual Life Insurance					
0000							MML Investment Advisers, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
							The state of the s			Massachusetts Mutual Life Insurance					
0000			04-1590850				MML Mezzanine Investor, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					1
0000			46-3238013	1			MML Strategic Distributors, LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
			0200010							Massachusetts Mutual Life Insurance					1
0000			06-1563535	2881445			The MassMutual Trust Company, FSB	CT	NIA	Company	Ownership	100.000	MMLIC	γ	
			- 3 .000000							Massachusetts Mutual Life Insurance					1
0000			26-0073611	I]		MassMutual Asset Finance LLC	DE	NI A	Company	Ownership	99.600	MMLIC		
0000			26-0073611				MassMutual Asset Finance LLC	DE	NI A	C.M. Life Insurance Company	Ownership	0.400	MMLIC		
0000			27-1379258				MMAF Equipment Finance LLC 2009-A	DE	NIA	MassMutual Asset Finance LLC	Ownership.	100.000	MMLIC		
0000			45-2589019				MMAF Equipment Finance LLC 2011-A	DE	NI A	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
			40 2000010				MML Private Placement Investment Company I,			Massachusetts Mutual Life Insurance	Owner Sirrp		- MINETO		
0000			04-1590850	I]		LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			0+ 1000000				LLV	UL		Massachusetts Mutual Life Insurance	οπιοι σπιρ	100.000	mmL10		-
0000			04-1590850	I]		MML Private Equity Fund Investor LLC	DE	NIA	Company	Ownership	100.000	MML1C		
0000			04-1590850				MM Private Equity Intercontinental LLC	DE	NIA	MML Private Equity Fund Investor LLC	Ownership	100.000	IMMLIC		1
0000			U+- 100000U				mm i i rate Equity intercontinental EEC	VE	NIA	Massachusetts Mutual Life Insurance	οπισι οπι μ		. mmL10		1
0000			45-2738137	1			Pioneers Gate LLC	DE	NIA	Company	Ownership	100,000	MMLIC		
0000			+J-2130131				I IUIGGIS UALE LLU	VE		Massachusetts Mutual Life Insurance	OMITGE 2011 P	100.000	. mmL10		
0000			04-2854319	2392316]		MassMutual Holding LLC	DE	NIA		Ownership	100,000	MMLIC	v	
				2092010						Company				[†]	
0000			06-1597528				MassMutual Assignment Company	NC	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		

A					FA		A - DL I AI	L OF INSURANC	<i>,</i> 🗀 1	IOLL	TING COMPAINT	SISILIVI				
Second S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Part												Type	If			
Part												of Control	Control			
Part												(Ownership,	is		ls an	
Professor Prof							Name of Securities			Relation-		Board,	Owner-		SCA	
Professor Prof									Domi-							
Composition			NAIC					Names of								
Code Group Name	Group		-	ID	Federal						Directly Controlled by			Ultimate Controlling	-	
1965 1965		Group Name				CIK	International)									*
1906 1906												Ownership		(-)	(1,11)	
					1160004											
				46-2252944					DE	NI A	MassMutual Holding LLC	Ownership				
				04-1590850					DE							
Manual Control Manu									DE							
Marchan Marc	0000							MassMutual Ventures Management LLC	DE	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		
15-1945 15-1	0000								DE	NII 4	W W A T H T P T T T T T T T T T T T T T T T T		400 000	IIII 10		
Mathematics				47 1006410					UE							
March Marc				1230410											[l
1				04-1590850												
Materials Services LE																I
Material																
Mode Management Holding LC F.C M.A. Masablata Holding LC Machine Section Multiple Common Multiple Common				04-1590850					MA	NI A		Ownership	100.000	MMLIC		
Service Serv																
	0000			51-0504477					DE	NI A	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
Serior S	0000			00 0004074					III/O	NII A	D	0	100,000	MH 10		
	0000			98-05242/1					HKG	NI A		. Uwnersnip	100.000	- MMLIC		
Second S	0000			08_0457465					RMII	NIA		Ownership	100,000	MML IC		
				. 30-0437403				Limited	DWO	NI /		owner strip				
	0000			98-0457463				Baring Asset Management (Asia) Limited	HKG	NIA		Ownership	100.000	MMLIC		
Sering SIGE Tailest Limit fed String SIGE Tailest Limit fed Sering SIGE Sering SIGE Tailest Limit fed Sering SIGE										NIA	Baring Asset Management (Asia) Limited					
Description											Baring Asset Management (Asia) Holdings					
Second S	0000			98-0457707				Baring SICE (Taiwan) Limited	TWN	NIA		Ownership	100.000	MMLIC		
Baring Saset Management (Asia) Holdings Saring Saset Management (Asia) Holding																
	0000			98-0236449					JPN	NI A		Ownership	100.000	MMLIC		
Description	0000			00 0457456					ALIC	NI A		Ownership	100 000	MMI 1C		
	0000			30-0437430								owner strip	100.000			
Description	0000								HKG	NIA		Ownership	100.000	MMLIC		
Description																
								Barings Australia Holding Company Pty Ltd		NI A		Ownership				
BCF Europe Funding Linited									AUS							
DOCK DCC Service Funding LLC DCC NIA Barings Finance LLC Ownership. 100.000 MALI C DCC NIA Barings Finance LLC DCC NIA Barings Finance LLC DCC NIA Barings LC Ownership. 100.000 MALI C DCC NIA DCC DCC NIA Barings LC Ownership. 100.000 MALI C DCC NIA DCC D			-	80-0875475	-											ļ
Decoration Dec												*				
D000 Barings Guernsey Limited D000 Barings Guernsey Limited D000 Barings Europe Limited D000		-	04 2220251											[·····	
Barings Europe Limited DE NIA Barings Guernsey Limited Ownership 100.000 MML IC																
Barings Real Estate LW Holdings Limited DE NIA Barings Europe Limited Ownership 100.000 MML C																l
BREAE AIFIN LLP Barings Real Estate Advisers (Continental Europe) Limited Barings Real Estate UK Holdings Limited 98-0654401 98-0654401 98-0654412 98-0654412 98-0654412 98-0654412 Barings Real Estate Advisers Europe LLP Barings Real Estate Advisers Europe Finance LLP Barings Real Estate Advisers Europe Finance Barings Real Estate Advisers GmbH DEU NIA Barings Real Estate UK Holdings Limited Ownership Ownership 100.000 MMLIC 0000 MMLIC											Barings Furgne Limited					
Barings Real Estate Advisers (Continental Europe) Limited																
D000 98-0654388 Barings Real Estate Advisers Europe LLP GBR NIA Barings Real Estate UK Holdings Limited Ownership 100.000 MMLIC								Barings Real Estate Advisers (Continental				·				
Barings Real Estate Advisers Europe Finance Barings Real Estate Advisers Europe Finance LLP LB Barings Real Estate UK Holdings Limited Ownership 100.000 MMLIC MMIC MMLIC MMLIC MMLIC MMLIC MMLIC MMLIC MMLIC MMLIC MMICC MMLIC MMICC MMLIC MMLIC MMLIC MMLIC MMLIC MMLIC MMLIC MMICC MMLIC										Barings Real Estate UK Holdings Limited						
D000	0000		-	98-0654388					GBR	NI A	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC	[ļ
.0000 98-1194368 Barings Real Estate Advisers GmbH DEU NIA Barings Real Estate UK Holdings Limited Ownership 100.000 MMLIC .0000 98-0241935 Barings Global Advisors Limited .GBR .NIA MassMutual Holdings (Bermuda) Limited .Ownership .100.000 MMLIC .0000 98-1012393 Barings Global Advisors Limited .GBR .NIA Baring Asset Management Limited .Ownership .100.000 MMLIC .0000 BEGSS 2 GP LLP .GBR .NIA Baring Asset Management Limited .Ownership .100.000 MMLIC .0000 Barings European Direct Lending 1 GP LLP .GBR .NIA Baring Asset Management Limited .Ownership .100.000	0000			00 0054446					opp		D . D . E . A . IV. II . IV		400.000	144 10		
.0000 98-0241935 Baring Asset Management Limited .GBR NIA MassMutual Holdings (Bermuda) Limited Ownership 100.000 MMLIC .0000 98-1012393 Barings Global Advisors Limited .GBR NIA Baring Asset Management Limited Ownership 100.000 MMLIC .0000 BCGSS 2 GP LLP .GBR NIA Baring Asset Management Limited Ownership 100.000 MMLIC .0000 Barings European Direct Lending 1 GP LLP .GBR NIA Baring Asset Management Limited Ownership 100.000 MMLIC			-												[·····
				100 1012000												İ
				98-0457328							Baring Asset Management Limited					

						, ,	L OF INSURANC				U . U . I				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
											Type	If			1
											of Control	Control			1
											(Ownership,	is		ls an	1
						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	1
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	1
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)	*
							Baring International Investment Management								
0000			98-0457587				Holdings	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			98-0457576				Denies Assak Management IIV Heldison Limited	ODD	NIA	Baring International Investment Management	O	100.000	MMLIC		1
0000			90-043/3/0				Baring Asset Management UK Holdings Limited.	GBR	NI A	HoldingsBaring Asset Management UK Holdings Limited	Ownership		. NIMILIO		
0000			98-0465031				Baring Asset Management GmbH	DEU	NIA	Dailing Asset management on noturings Limited	Ownership	100.000	MMLIC		1
							Baring International Fund Managers (Ireland)			Baring Asset Management UK Holdings Limited					
0000			98-0524272				Limited	IRL	NI A	-	Ownership	100.000	MMLIC		
										Baring Asset Management UK Holdings Limited	l				1
0000							Baring Asset Management Switzerland Sàrl	CHE	NI A		Ownership	100.000	MMLIC		
			00 0407550							Baring Asset Management UK Holdings Limited	١	400.000			1
0000			98-0497550 98-0457586				Baring France SAS	FRA	NI A	B ·	Ownership	100.000	MMLIC		·
0000			98-0457574				Baring Fund Managers Limited	GBR GBR	NI A NI A	Baring Asset Management Limited Baring Asset Management Limited	Ownership	100.000	MILIC		
0000			98-0457578				Baring Investment Services Limited	GBR	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000			30 040/0/0				Barings GPC GP S.à. r.l .	_LUX	NIA	Baring Asset Management Limited	Ownership.	100.000	MMLIC		
0000							Barings Investment Fund (LUX) GP S.à. r.I	LUX	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000							Almack Mezzanine GP III Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000							Almack Holding Partnership GP Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		ļ'
0000							Almack Mezzanine Fund Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000							Almack Mezzanine Fund II Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	- MMLIC		
0000			98-0432153				Barings (U.K.) Limited	GBR	NIA NIA	Barings Guernsey Limited	Ownership	100.000	MMLIC		
0000							Barings Multifamily Capital Holdings LLC Barings Multifamily Capital LLC	MI	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000							Barings Multifamily Capital Corporation	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
0000			04-3238351	3456895			Barings Real Estate Advisers Inc.	CA	NIA	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Baring Holding LLC	DE	NI A	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
0000							MassMutual Holdings (Bermuda) Limited	BMU	NI A	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance		.=			1
0000							Agspring Holdco, LLC	DE	NI A	Company	Ownership	15.400	MMLIC		
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	30.000	MMLIC		1
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NIA	Barings LLC	Influence.	30.000	MMLIC		
0000			01 2244400				onassis Acquisition notating ELO			Massachusetts Mutual Life Insurance	TITT GOIGE		I IIIIL 10		
0000			81-4258759				CRA Aircraft Holding LLC	DE	NI A	Company	Ownership/Influence	40.000	MMLIC		ļ'
0000			81-4258759				CRA Aircraft Holding LLC	DE	NI A	Barings LLC	Influence		MMLIC		ļ
		1								Massachusetts Mutual Life Insurance					
0000			83-0560183				Aland Royalty Holdings LP	DE	NI A	Company	Ownership	26.700	- MMLIC		·
0000			83-0560183				Aland Royalty Holdings LP	DE	NI A	Barings LLC	Management		MMLIC		
0000			46-2344300				Intermodal Holdings II LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	18.000	MMLIC		1
0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	18.200	MMLIC		
0000			47 0000000				mirestone Acquisition notating, LLC.			Massachusetts Mutual Life Insurance	owner strip/ trit ruence	10.200	_ IIIIIL 10		
0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NI A	Company	Ownership	0.000	MMLIC		
0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NIA	Barings LLC	Influence		MMLIC		
		1								Massachusetts Mutual Life Insurance					
0000			46-5460309				Red Lake Ventures, LLC	DE	NI A	Company	Ownership/Influence	31.500	MMLIC		·
0000		l	46-5460309				Red Lake Ventures, LLC	DE	NI A	Barings LLC	Influence		MMLIC	[·
0000		1	81-4065378				Remington L & W Holdings LLC	CT	NIA	Massachusetts Mutual Life Insurance	Ownership /Influence	66.700	. MMLIC		
0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	CompanyBarings LLC	Ownership/Influence	001.00	MMLIC		· · · · · · · · · · · · · · · · · · ·
0000			01-4000010				Industry to the desired the second second	01	NI A	Massachusetts Mutual Life Insurance	uciiuc		mmL10		
0000							Tamiami Citurus, LLC	DE	NI A	Company	Ownership	15.700	MMLIC		l'
0000							Teaktree Acquisition, LLC	DE	NI A	MassMutual Holding LLC	Ownership/Influence	14.700	MMLIC		

										ING COMPAN					
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
											Туре	lf			'
											of Control	Control			1
											(Ownership,	is		ls an	'
						Name of Securities			Relation-		Board,	Owner-		SCA	1
						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							Teaktree Acquisition, LLC	DE	NIA	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					'
0000							U.S. Buyer Broadcasting, LLC	DE	NI A	Company	Ownership/Influence	12.700	_ MMLIC		ļ!
0000			46-0687392				US Pharmaceutical Holdings I, LLC	DE	NIA	Company	Management		MMLIC		'
			40-0007332				os maniaceutical noturngs 1, LLC			Massachusetts Mutual Life Insurance	management		. IMML10		
0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Company	Ownership/Influence	42.900	MMLIC		
0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NI A	Barings LLC	Influence		MMLIC		
							-			Massachusetts Mutual Life Insurance					'
0000							Solar Acquisition Holding, LLC	DE	NI A	Company	Ownership/Influence	32.800	. MMLIC		
0000							Solar Acquisition Holding, LLC	DE	NI A	Barings LLC	Management		MMLIC		!
0000							Validus Pharmaceuticals LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		'
0000							VGS Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	33.200	MMLIC		·
0000						***************************************	VGS Acquisition Holding, LLC	DE	NIA	Barings LLC	Management		MMLIC		
. 0000							Baring Asset-Based Income Fund (US) GP, LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
							Babson Capital Floating Rate Income Fund			J					
0000			. 04-1590850				Management, LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000							Babson Global Loan Feeder Management, LLC	DE	NI A	Barings LLC	Ownership	100.000	. MMLIC		!
0000			98-0241935				Baring North America LLC	MA	NIA	Barings LLC	Ownership	100.000	MMLIC		
0000			-				Barings ABIF SLP, LLC	DE	NI A	Barings LLC	Ownership	100.000	- MMLIC		!
0000							Barings CLO Investment Partners GP, LLC	DE	NIA NIA	Barings LLC	Ownership	100.000	MMLIC		·
0000							Barings Core Property Fund GP LLC Barings Direct Lending GP Ltd.	CYM	NIA	Barings LLC	Ownership	100.000	MMLIC		
							Barings Global Energy Infrastructure	OTWL		Dai mgs EE0	owner strip.		minL10		
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		!
0000							Barings Global Real Assets Fund GP, LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		!
0000							Barings TERO Management LLC	DE	NIA	Barings LLC	Ownership	100.000	- MMLIC		!
0000			98-0536233				Barings/LAZ Parking Fund GP LLC Benton Street Advisors, Inc.	DE	NI A NI A	Barings LLC	Ownership Ownership	100.000	MMLIC		
0000			90-0330233				BREBF I GP LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
0000							BRECS VII GP LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
0000							CCM Fund REIT Manager LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		
0000			.				CCM Venture GP LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000							CCM Venture REIT Manager LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		ļ'
0000			-				CEMF I GP LLC	DE	NI A	Barings LLC	Ownership	100.000	- MMLIC		·
0000							CHY Venture GP LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		·····
0000			-				CREF VIII GP. LLC	DE	NI A NI A	Barings LLCBarings LLC	Ownership	100.000	MMLIC	[·
0000			04-1590850				Great Lakes III GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	- MMLIC		
0000							Lake Jackson LLC	DE	NIA	Barings LLC	Ownership.	100.000	MMLIC		ļ
0000			04-1590850				Loan Strategies Management LLC	DE	NI A	Barings LLC	Ownership.	100.000	MMLIC		
0000			. 04-1590850				Mezzco LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000			. 02-0767001				Mezzco II LLC	DE	NI A	Barings LLC	Ownership	98.400	MMLIC		'
0000			41-2280126				Mezzco III LLC	DE	NIA	Barings LLC	Ownership	99.300	MMLIC		
0000			80-0920285				Mezzco IV LLC	DE	NI A	Barings LLC	Ownership	99.300	MMLIC		·!
0000			90-0666326				Mezzco Australia LLC	DE	NIA NIA	Barings LLC	Ownership	72.000	MMLIC		·
0000			-				RECSA-NY GP LLC	DE	NIA	Barings LLCBarings LLC	Ownership	100.000	MMLIC		1
0000							Somerset Special Opportunities Management LLC		NI /	Dai ingo LEO	omioi sirip		. mmL1V		
0000			04-1590850	1			Somer set open an opportunities management LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		1 '
0000			84-1149206	2897101			Oppenheimer Acquisition Corp.	DE	NIA	MassMutual Asset Management Holding LLC	Ownership	96.900	MMLIC		

										ING COMPANY	0.0.				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
											Type	lf			
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of		to		Attorney-in-Fact,	Provide		Re-	
Craun			ID	Federal		(U.S. or	Parent, Subsidiaries	ciliary		Directly Controlled by			Liltimata Controllina		
Group	Outside Name	Company		RSSD	Olle	(0.5. 01	Or Affiliates	Loca-	Reporting	Directly Controlled by	Influence, Other)	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number		CIK	International)		tion	Entity	(Name of Entity/Person)		tage	Entity(ies)/Person(s)	(Y/N)	
0000			13-2527171	2679183			OppenheimerFunds, Inc.	CO	NI A	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC		·
0000			13-2953455				OppenheimerFunds Distributor, Inc.	NY	NI A NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
0000			84-1106295 13-4160541	0450405			Oppenheimer Real Asset Management, Inc.	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
0000			22-2697140	3458125			OFI Global Institutional, Inc HarbourView Asset Management Corporation	NY		OppenheimerFunds, IncOFI Institutional Asset Management, Inc	Ownership	100.000	MMLIC		
0000			22-209/ 140				OC Private Capital, LLC	DE	NIA	OFI Institutional Asset Management, Inc	Ownership	51.000	MMLIC		·
0000			13-3459790	2914875			OFI Global Trust Company	NY.		OFI Institutional Asset Management, Inc	Ownership.	100.000	MMLIC		
0000			10-0403730	2314073			OFI International, Ltd.	GBR	NIA	OFI Institutional Asset Management, Inc	Ownership	100.000	MMLIC		
0000							SNW Asset Management Corporation	DE	NIA	OFI Institutional Asset Management, Inc	Ownership	100.000	MMLIC		
0000			60-2233720				Seattle Northwest Asset Management LLC	WA		OFI Institutional Asset Management, Inc	Ownership	100.000	MMLIC		
0000			25-1951632				Trinity Investment Management Corporation	PA	NIA	OFI Institutional Asset Management, Inc	Ownership	100.000	MMLIC		
0000			84-1128397				0FI SteelPath, Inc.	DE	NI A	OppenheimerFunds. Inc.	Ownership	100.000	MMLIC		
0000			84-1066811				Shareholder Services, Inc.	CO	NI A	OppenheimerFunds. Inc.	Ownership	100.000	MMLIC		
0000							OFI Advisors , LLC	DE	NI A	OppenheimerFunds. Inc.	Ownership	_100.000	MMLIC		
0000							Index Management Solutions, LLC	PA	NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
0000			84-0765063				OFI Global Asset Management, Inc.	DE	NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
0000			91-2036414				OFI Private Investments Inc.	NY	NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		
0000			62-1210532				Tremont Group Holdings, LLC	NY	NI A	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC		
0000			06-1121864				Tremont Partners, LLC	CT	NI A	Tremont Group Holdings, Inc	Ownership	100.000	MMLIC		.
0000			20-8215352				Tremont GP, LLC	DE	NIA	Tremont Group Holdings, Inc	Ownership	100.000	MMLIC		
0000			90-0874510				Settlement Agent, LLC	DE	NI A	Tremont GP	Ownership	100.000	MMLIC		.
0000							Tremont (Bermuda) Limited	BMU	NI A	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-3313782				MassMutual International LLC	DE	NI A	Company	Ownership	100.000	MMLIC	Y	
0000							MassMutual Asia Limited	HKG	IA	MassMutual International LLC	Ownership	100.000	MMLIC		
0000							MassMutual Asia Investors Ltd.	HKG	NI A	MassMutual Asia Limited	Ownership	100.000	MMLIC		
0000							MassMutual Guardian Limited	HKG	NI A	MassMutual Asia Limited	Ownership	100.000	MMLIC		
0000							MassMutual Insurance Consultants Limited	HKG	NI A	MassMutual Asia Limited	Ownership	100.000	MMLIC		
0000							MassMutual Services Limited	HKG	NI A	MassMutual Asia Limited	Ownership	100.000	MMLIC		· · · · · · · · · · · · · · · · · · ·
0000			98-0610331				MassMutual Trustees Limited	HKG	NI A NI A	MassMutual Asia Limited	Ownership	80.000	MMLIC		
0000			98-0610331				Protective Capital (International) Limited MassMutual Internacional (Chile) SpA	nku	NIA	MassMutual International LLC	Ownership	100.000	MMLIC		
0000			90-1033127				MassMutual Life Insurance Company	JPN	IA	MassMutual International LLC	Ownership	100.000	MMLIC		·
0000							massmutual Life Hisurance Company		IA	Massachusetts Mutual Life Insurance	Owner Sirrp	100.000	MMLIO		
0000			04-2443240		1		MML Management Corporation	MA	NIA	Company	Ownership	100.000	MMLIC	v	
0000			04-3548444				MassMutual International Holding MSC, Inc	MA	NIA	MML Management Corporation	Ownership	100.000	MMLIC		
0000			04-3341767				MassMutual Holding MSC, Inc.	MA	NIA	MML Management Corporation	Ownership.	100.000	MMLIC		
							macomatan. Horaring moo, This.			Massachusetts Mutual Life Insurance	5				
0000		1	04-1590850		I		MML Mezzanine Investor II. LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				MML Mezzanine Investor III. LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
							,			Massachusetts Mutual Life Insurance					
0000			27-3576835				MassMutual External Benefits Group LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			20-8730751				Cornerstone Global REIT Corporation	DE	NI A	Company	Ownership	100.000	MMLIC		
							·			Massachusetts Mutual Life Insurance					
0000			04-1590850				100 w. 3rd Street LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
		1			I					Massachusetts Mutual Life Insurance					
0000			82-2432216				300 South Tryon Hotel LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
					1					Massachusetts Mutual Life Insurance					
0000			04-1590850				300 South Tryon LLC	DE	NI A	Company	Ownership	100.000	MMLIC		.
		1			I					Massachusetts Mutual Life Insurance		1			
0000			20-3887968				54 West Capital LLC	DE	NIA	Company	Ownership	100.000	MMLIC		

						,		<i>-</i>		ING COMPANT	O I O I EIVI				
1	2	3	4	5	6	7	8	9	10	11	12 Type	13 If	14	15	16
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board,	Owner-		SCA	1
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.Ś. 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							Almack Mezzanine Fund I LP	GBR	NI A	Company	Ownership/Influence	41.400	MMLIC		
0000							Almack Mezzanine Fund I LP	GBR	NIA	C.M. Life Insurance Company	Ownership	4.600	MMLIC		·'
0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	72.900	MMLIC		
0000							Affiack Mezzanine Fund II Onleveraged LP	ubn	NI A	Massachusetts Mutual Life Insurance	. Towner Ship/ Initiaence	12.900	MMLIC		·
0000							Almack Mezzanine Fund III LP	GBR	NIA	Company	Ownership/Influence	38.000	MMLIC		
0000							Almack Mezzanine Fund III LP	GBR	NIA	C.M. Life Insurance Company	Ownership.	0.000	MMLIC		
0000		-					Almack Mezzanine Fund III LP	GBR	NIA	Barings (U.K.) Limitied	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NI A	Company	Ownership/Influence	0.000	MMLIC		
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NI A	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Corporate Bond Fund			Massachusetts Mutual Life Insurance					
0000								IRL	NI A	Company	Ownership/Influence	98.300	MMLIC		
							Barings Emerging Markets Corporate Bond Fund								
0000								IRL	NI A	Barings LLC	Management		MMLIC		
							Barings Global Special Situations Credit Fund			Massachusetts Mutual Life Insurance					
0000							1	IRL	NI A	Company	Ownership/Influence	81.100	MMLIC		
2000							Barings Global Special Situations Credit Fund				l				
0000							1	IRL	NI A	Barings LLC	Management		MMLIC		
0000			98-1206017				Babson Capital Global Special Situation	DE	ALL A	Massachusetts Mutual Life Insurance	0	25,400	MMLIC		
0000			98-1206017				Credit Fund 2	UE	NI A	Company	Ownership/Influence	25.400	MMLIC		
0000			98-1206017				Credit Fund 2	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
0000			90-1200017				Babson Capital Global Special Situation	UE	NI A	C.W. Life insurance company	Owner Strip				
0000			98-1206017				Credit Fund 2	DE	NI A	Barings LLC	Management		MMLIC		1
			00 1200011				ordare rand 2			Massachusetts Mutual Life Insurance	managomone				
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NIA	Company	Ownership/Influence	0.000	MMLIC		1
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NI A	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					1
0000							Barings US High Yield Bond Fund	IRL	NI A	Company	Ownership/Influence	56.100	MMLIC		
0000							Barings US High Yield Bond Fund	IRL	NI A	C.M. Life Insurance Company	Ownership	43.200			
0000							Barings US High Yield Bond Fund	IRL	NI A	Barings LLC	Management		MMLIC		
0000							Babson CLO Ltd. 2013-I	CYM	NI A	Barings LLC	Influence	·····	MMLIC		3
0000							Babson CLO Ltd. 2014-I	CYM	NI A	Barings LLC	Influence		MMLIC		2
0000							Babson CLO Ltd. 2014-II	CYM	NI A	Barings LLC	Influence	· -	MMLIC		4
0000							Babson CL0 Ltd. 2014-III	CYM CYM	NI A	Barings LLCBarings LLC	Influence		MMLIC		ļ
0000							Babson CLO Ltd. 2015-1	CYM	NIA	Barings LLC	Influence	· -			5 6
0000							Babson CLO Ltd. 2015-11	CYM	NIA	Barings LLC	Influence		MMLIC		a
0000							Babson CLO Ltd. 2016-1	CYM	NIA	Barings LLC	Influence	· 	MMLIC		
0000		-					Barings CLO Ltd. 2017-1	CYM	NI A	Barings LLC	Influence		MMLIC		1
0000							Babson Euro CLO 2014-1 BV	NLD	NIA	Barings LLC	Influence		MMLIC		
0000		1					Babson Euro CLO 2014-1 BV	NLD	NIA	Barings LLC	Influence		MMLIC		
0000							Babson Euro CLO 2015-I BV	NLD	NIA	Barings LLC	Influence		MMLIC		
0000							Babson Euro CLO 2016-1 BV	NLD	NIA	Barings LLC	Influence.		MMLIC		
0000							Barings Euro Equity Income Fund		NI A	Baring Asset Management Limited	Ownership/Influence	93.000	MMLIC		1
							- , ,			Massachusetts Mutual Life Insurance					
0000			81-0841854				Barings CLO Investment Partners LP	DE	NI A	Company	Ownership/Influence	97.600			
0000			81-0841854				Barings CLO Investment Partners LP	DE	NI A	Barings LLC	Management		MMLIC		
				1			Barings Real Estate European Value Add I SCSp			Massachusetts Mutual Life Insurance					1
0000								GBR	NIA	Company	Ownership/Influence	100.000	MMLIC		

SCHEDULE Y

				ГА	ווחו	A - DE I AI	L OF INSURANC	, C I	JOLD	ING COMPANT	SISIEIVI				
1	2	3	4	5	6	7	8	9	10	11	12 Type of Control	13 If Control	14	15	16
											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
		NIAIO				Exchange	N. C	Domi-	ship		Management,	ship		Filing	
0		NAIC	ID	F11		if Publicly Traded	Names of Parent, Subsidiaries	ciliary	to	Discretic Occasional and have	Attorney-in-Fact,	Provide	I litimosto Osmatus Ilia a	Re-	
Group Code	Group Name	Company Code	Number	Federal RSSD	CIK	(U.S. or International)	Or Affiliates	Loca- tion	Reporting Entity	Directly Controlled by (Name of Entity/Person)	Influence, Other)	Percen-	Ultimate Controlling Entity(ies)/Person(s)	quired? (Y/N)	*
Code	Group Name	Code	Number	กออบ	CIK	international)	Barings Real Estate European Value Add I SCSp	lion	Entity	(Name of Entity/Ferson)	Other)	tage	Entity(les)/Ferson(s)	(T/IN)	+
0000							barrings ficar Estate European varue and 1 000p	GBR	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
							Barings Real Estate European Value Add I SCSp								
0000								GBR	NI A	Barings LLC	Management		MMLIC		
0000			. 11–3789446				Denies Francis FAFF Frank	DE	NIA	Massachusetts Mutual Life Insurance	0hi (l-fl	49.600	MMLIC		
0000			11-3789446				Baring Focused EAFE Equity Fund Baring Focused EAFE Equity Fund	DE	NIA	Company	Ownership/Influence Management	49.600	MMLIC		
			. 11 0/05440				Barings Global Energy Infrastructure Fund I			Massachusetts Mutual Life Insurance	management		mmL10		
0000			98-1332384	.			LP	CYM	NI A	Company	Ownership/Influence	95.500	MMLIC		
							Barings Global Energy Infrastructure Fund I								
0000			98-1332384				LP	CYM	NI A	Baring Asset Management Limited	Management		MMLIC		·
0000							Desires Olehal Deisset-Lass Freed	LUX	NI A	Massachusetts Mutual Life Insurance	O	15.500	MMLIC		
0000							Barings Global Private Loan Fund Barings Global Private Loan Fund	LUX	NIA	Company Barings LLC	Ownership/Influence Management	15.500	MMLIC		· · · · · · · · · · · · · · · · · · ·
							Dai mgo drobat i i i vato Loui i una			Massachusetts Mutual Life Insurance	managomore		mmE10		
0000			82-3867745				Barings Global Real Assets Fund LP	DE	NI A	Company	Ownership/Influence	0.000	. MMLIC		
0000			. 82-3867745				Barings Global Real Assets Fund LP	DE	NI A	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
0000			. 82-3867745				Barings Global Real Assets Fund LP	DE	NI A	Barings LLC	Management		MMLIC		
.0000							Barings Global Special Situations Credit Fund	IRL	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	22,200	MMLIC		
							Barings Global Special Situations Credit Fund		NIA	Company	Owner Ship/ Initiaence	22.200	. MMLIC		
0000							3	IRL	NI A	Barings LLC	Management		MMLIC		
0000							Barings Middle Market CLO 2017-I Ltd & LLC	CYML	NI A	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 38-4010344				Barings North American Private Loan Fund LP	DE	NI A	Company	Ownership/Influence	49.700	MMLIC		
0000			. 38-4010344				Barings North American Private Loan Fund LP	DE	NI A	Baring Asset Management Limited Massachusetts Mutual Life Insurance	Management		MMLIC		
0000			98-1332384				Barings RE Credit Strategies VII LP	DE	NIA	Company	Ownership/Influence	35.400	MMLIC		
0000			98-1332384				Barings RE Credit Strategies VII LP	DE	NI A	Baring Asset Management Limited	Management		MMLIC		
										Massachusetts Mutual Life Insurance	_				
0000			. 26-4142796				Baring International Small Cap Equity Fund	DE	NI A	Company	Ownership/Influence	57.900	MMLIC		
0000			26-4142796				Baring International Small Cap Equity Fund	DE	NI A	Baring Asset Management Limited	Management		MMLIC		· · · · · · · · · · · · · · · · · · ·
0000							Braemar Energy Ventures I, L.P.	DE	NIA	Company	Ownership/Influence	91.300	MMLIC		
0000							Braemar Energy Ventures I, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
0000							Braemar Energy Ventures I, L.P.	DE	NI A	Barings LLC	Management		MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NI A	MassMutual Holding LLC	Ownership/Influence	19.000	MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NI A	C.M. Life Insurance Company	Ownership	1.200	MMLIC		·
0000			38-4059932				Barings European Core Property Fund SCSp Benchmark 2018-B2 Mortgage Trust	LUX	NIA NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
0000			27-1701622				Cornerstone Core Mortgage Venture I LP	DE	NIA	MassMutual Holding LLC	Ownership/Influence	50.000	MMLIC		
0000			27-1701622				Cornerstone Core Mortgage Venture I LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			45-3751572				Cornerstone Enhanced Mortgage Fund I LP	DE	NI A	Company	Ownership/Influence	14.400	MMLIC		
0000			. 45–3751572				Cornerstone Enhanced Mortgage Fund I LP	DE	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	99.900	MMLIC		
0000			. 20-8730751				Cornerstone Global Real Estate LP	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		1
0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
						1				Massachusetts Mutual Life Insurance			1		1
0000			. 36-4770946				Cornerstone High Yield Venture LP	DE	NIA	Company	Ownership/Influence	49.800	MMLIC		
0000			. 36-4770946 20-5578089				Cornerstone High Yield Venture LP	DE	NIA	Barings Real Estate Advisers LLC	Management	11 000	MMLIC		·
0000			20-5578089				Barings Core Property Fund LP Barings Core Property Fund LP	DE		MassMutual Holding LLC Barings Real Estate Advisers LLC	Ownership/Influence	11.800	MMLIC		·
١٠٠٠			. 20-00/0009				Dailings oute Fluperly Fullu LF	UE	NI M	Dai iliyə nedi Estate Muviseis LLC	manaycolciii		MML U		

				1 /			L OF INSURANC	·LI	IOLL	THE COMMENT	O I O I LIVI				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
-	-		-	1 1	•	·					Type	If			
											of Control	Control			
														1	
											(Ownership,	is		ls 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	Group Hamo	0000	140111001	TIOOD	Oliv	international)	OT 7 timiatos	tion	Linkly	Massachusetts Mutual Life Insurance	Othor)	lago	Entity (100)/1 croon(0)	(1/11)	+
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Company	Ownership/Influence	100.000			
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
												0.000	MMLIC		
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NI A	Barings Real Estate Advisers LLC	Management		- MMLIC		
			05 0504000							Massachusetts Mutual Life Insurance		400 000			
0000			35-2531693				Cornerstone Permanent Mortgage Fund III LLC.	MA	NI A	Company	Ownership/Influence	100.000	- MMLIC		
0000			35-2531693				Cornerstone Permanent Mortgage Fund III LLC _	MA	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NI A	Company	Ownership/Influence	100.000	MMLIC		
0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
0000				4007502			Duchess VII CLO B.V.	GBR	NI A	Barings LLC	Influence		_ MMLIC		
										Massachusetts Mutual Life Insurance					
0000			20-3887968				E-Wise Land Venture LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			80-0691253				Gateway Mezzanine Partners I, L.P.	DE	NIA	Company	Ownership/Influence	71.600	MMLIC		
			. 00 003 1230				dateway mozzanine rai thers 1, E.i .			Massachusetts Mutual Life Insurance	- Owner strip/ Titl ruchec				
0000			90-0991195				Gateway Mezzanine Partners II LP	DE	NIA	Company	Ownership/Influence	47.800	MMLIC		
0000			90-0991195				Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
												0.000			
0000			90-0991195				Gateway Mezzanine Partners II LP	DE	NI A	Barings LLC	Management		- MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 37-1708623				Great Lakes III, L.P.	DE	NI A	Company	Ownership/Influence	35.700	MMLIC	-	
0000			37-1708623				Great Lakes III, L.P.	DE	NI A	Barings LLC	Management		. MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				Gillem GA Industrial LLC	DE	NI A	Company	Ownership	100.000	_ MMLIC		
							JPMCC Commercial Mortgage Securities Trust								
0000			38-4041011				2017-JP7	NY	NI A	Barings LLC	Management		_ MMLIC		
							JPMDB Commercial Mortgage Securities Trust			-					
0000			38-4032059				2017-C5	NY	NI A	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			20-3887968				Kazwell Realty Partners LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			20 000,000				The state of the s			Massachusetts Mutual Life Insurance	- I - I - I - I - I - I - I - I - I - I			-	
0000			82-1512591				KKR-MM Vector LP	DE	NIA	Company	Ownership/Influence	0.000	MMLIC		
9000			02 1012001				INIT HIM VCCTOF EI			Massachusetts Mutual Life Insurance	- Owner strip/ titr fucilies	9.000			
0000			46-4255307				Marco Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			40-420000/				maico intel LLO	UE	NI A	Massachusetts Mutual Life Insurance	- Towner strip			-	·
0000		I	81-3000420			ĺ	MM Debt Participations LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership/Influence	100.000	MMLIC		
				-								100.000		-	+
0000			81-3000420				MM Debt Participations LLC	DE	NI A	Barings LLC	Management		MMLIC		
		I								Massachusetts Mutual Life Insurance	I	400 00-			
0000			20-3887968				Oakley Grove Development LLC	DE	NI A	Company	Ownership	100.000	. MMLIC		
										Massachusetts Mutual Life Insurance					
0000			20-3887968				Old Pasco Properties LLC	DE	NI A	Company	Ownership	100.000	. MMLIC		
										Massachusetts Mutual Life Insurance					
0000			82-4411267				RB Apartments LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
							·			Massachusetts Mutual Life Insurance					
0000			75-2901061				Reston Arboretum LLC	DE	NI A	Company	Ownership	100.000	MMLIC		1
										Massachusetts Mutual Life Insurance					1
0000		I	30-0713071				Riva Portland LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
0000							Rockall CLO B.V.	GBR	NIA	Barings LLC	Influence		MMLIC	-	
0000							HOUNGIT OLU D. V.		NI 7	Massachusetts Mutual Life Insurance		···· 	I IIIIILI I V	-	
0000			54-2055778	1			Rockville Town Center LLC	VA	NIA		Ownership	100.000	MMLIC		
0000			04-2000//8	-			MOCKVITTE TOWN CENTER LLC	VA	NI A	Company	Ownership	100.000	MMLIV		
0000		I	00 0050077					DE		Massachusetts Mutual Life Insurance		50 500	144 10		
0000			20-8856877				Somerset Special Opportunities Fund L.P.	DE	NI A	Company	Ownership/Influence	58.500	MMLIC	-	
0000			20-8856877				Somerset Special Opportunities Fund L.P	DE	NI A	C.M. Life Insurance Company	_ Ownership	2.900		.	

				PA	KIL	A - DE I AI	L OF INSURANC	,E i	10LL	ING COMPANY	SYSIEW				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
											Type	If			
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
								Dami				ship		Filing	
						Exchange		Domi-	ship		Management,	- 1		9	
		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			20-3887968				South Pasco Properties LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			30-0336246				Tower Square Capital Partners II, L.P	DE	NI A	Company	Ownership/Influence	22.400	_MMLIC		
0000			30-0336246				Tower Square Capital Partners II, L.P	DE	NIA	C.M. Life Insurance Company	Ownership	3.900	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			32-0160190				Tower Square Capital Partners II-A, L.P	DE	NI A	Company	Ownership/Influence	85.000	_ MMLIC		
0000			41-2280127				Tower Square Capital Partners III, L.P	DE	NI A	Barings LLC	Management		MMLIC		
			44 0000407					D=		Massachusetts Mutual Life Insurance		0.700			
0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NI A	Company	Ownership/Influence	2.700	MMLIC		
0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NI A	MassMutual Holding LLC	Ownership/Influence	34.600	MMLIC		
								D=		Massachusetts Mutual Life Insurance		05.000			
0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE	NI A	Company	Ownership/Influence	95.900	- MMLIC		
0000			41-2280129				Tower Square Capital Partners IIIA, L.P	DE	NI A	Barings LLC	Management		MMLIC		
0000			80-0920367				Town Common Consider Donatown IV A. J. D.	DE	ALLA	Massachusetts Mutual Life Insurance	0	04 000	MMLIC		
0000			80-0920367				Tower Square Capital Partners IV-A, L.P	DE	NI A	Company	Ownership/Influence	21.300	MMLIC		
0000			04-1590850				W4 404b 044 11-4-1 11 0	DE	NI A	Massachusetts Mutual Life Insurance	0	100.000	MMLIC		
0000			04-1590850				West 46th Street Hotel LLC	UE	NIA	Company	Ownership	100.000	MMLIC		
0000							Barings Emerging Markets Debt Blended Total Return Fund	IRL	NI A	Barings LLC	Management		MMLIC		
0000							Barings Emerging Markets Debt Short Duration	InL	NI A	bar riigs LLC	mariagement		MMLIC		
0000							Fund	IRL	NI A	Barings LLC	Management		MMLIC		
0000							Barings Emerging Markets Sovereign Debt Fund	INL	NI A	Dai mys LLC	management		MMLIG		
0000							bailings Emerging markets soverergn best Fund	IRL	NI A	Barings LLC	Management		MMLIC		
0000							Babson Capital Loan Strategies Master Fund LP			Dai mys LLC	management				
0000							Dabson Capital Loan Strategies master rund Li	CYM	NIA	Barings LLC	Management		MMLIC		
5000							Barings Global Investment Grade Corporate			Dut mgo LEO	managonoric				
0000							Plus Fund	IRL	NIA	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Debt Blended Total			54go 225	- Indiagonome				
0000			47-3758432				Return Fund	MA	NIA	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Local Currency Debt			, , , , , , , , , , , , , , , , , , ,	1				
0000			47-3774453				Fund	MA	NI A	Barings LLC	Management		MMLIC		l
0000			47-3790192				Barings Global High Yield Fund	MA	NI A	Barings LLC	Management		MMLIC		
0000							Baring Greater China Equity Fund	HKG	NI A	Baring Asset Management Limited	Management		MMLIC		
0000			47-3734770				Barings Total Return Bond Fund	MA	NI A	Barings LLC	Management		MMLIC		
0000			47-3801860				Barings U.S. High Yield Fund	MA	NI A	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			71-1018134	.			Great Lakes II LLC	DE	NI A	Company	Ownership	11.200	MMLIC		
0000			71-1018134				Great Lakes II LLC	DE	NI A	C.M. Life Insurance Company	Ownership	1.000	MMLIC		
							Somerset Special Opportunities Master Fund								
0000							LP	CYM	NI A	Barings LLC	Management		MMLIC		
1			I							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	59.100	MMLIC		
0000			. 36-4823011				50 Liberty LLC	DE	NI A	C.M. Life Insurance Company	Ownership	5.800	MMLIC		·····
0000			00 00/0000					DE		Massachusetts Mutual Life Insurance		40.000			
0000			80-0948028				One Harbor Shore LLC	DE	NI A	Company	Ownership	49.900	- MMLIC		
0000			80-0948028				One Harbor Shore LLC	DE	NI A	C.M. Life Insurance Company	Ownership	4.900	MMLIC		
0000			01 4202111				Budapester Strasse LLC	DE	NIA	Massachusetts Mutual Life Insurance	Ownership.	100.000	MMLIC		
0000			81-4382111				buuapester Strasse LLC	UE	INI A	Company	. whership	100.000	. NIML I		
0000			82-2285211				Calgary Railway Holding LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC		
			82-2285211					DE	NIA NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
0000			02-2280211				Calgary Railway Holding LLC	UE	NI A	U.W. Life Insurance Company	_ Lowner snip	000.01	_ MML1U		

Name of Securities Relation- Exchange Domi- ship		Ultimate Controlling Entity(ies)/Person(s)	Is an SCA Filing Required? (Y/N)	16
NAIC Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Company Group Code Company Group Company Group Group Code Company Group Company Group Company Group Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Company Ownership Company Ownership Company Ownership	of Control (Ownership, Board, Ownership, ttorney-in-Fact, Influence, Other) — 100.000 — 100.000	Ultimate Controlling Entity(ies)/Person(s)	SCA Filing Re- quired?	*
NAIC Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Nam	(Ownership, Board, Management, ttorney-in-Fact, Influence, Other) 100.000 100.000	Ultimate Controlling Entity(ies)/Person(s)	SCA Filing Re- quired?	*
NAIC Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Code Group Name Group Nam	Board, Owner- Management, ship Provide Influence, Other) Percentage	Ultimate Controlling Entity(ies)/Person(s)	SCA Filing Re- quired?	*
Group Code Group Name Description Company Code Group Name Section Company Code Group Name Section Company Code Section Company Compan	Management, ship Provide Percentage Other) 100.000 100.000	Ultimate Controlling Entity(ies)/Person(s)	Filing Re- quired?	*
Group Code Group Name Code Number RSSD CIK if Publicly Traded (U.S. or International) Parent, Subsidiaries Or Affiliates Corporation Code Number RSSD CIK International) Corporation Code Number RSSD CIK International) Corporation Code Number RSSD CIK International) Corporation Code Number RSSD CIK International) Corporation Code Number RSSD CIK International) Corporation Code Number RSSD CIK International) Corporation Code Number Num	ttorney-in-Fact, Influence, Other) Provide Percentage 100.000	Ultimate Controlling Entity(ies)/Person(s)	Re- quired?	*
Group Code Group Name Company Code Number RSSD CIK International) Concertainty Code Company Code Number RSSD CIK International) Concertainty Code Company Code Company Code Company Code Company Compa	Influence, Other) Percentage	Ultimate Controlling Entity(ies)/Person(s)	quired?	*
Group Code Group Name Company Code Number RSSD CIK International) Concertainty Code Company Code Number RSSD CIK International) Concertainty Code Company Code Company Code Company Code Company Compa	Influence, Other) Percentage	Entity(ies)/Person(s)		*
		MMLIC	(Y/N)	*
0000				ļ i
0000 95-4207717 Cornerstone California Mortgage Fund II LLC CA NIA Company Ownership Cornerstone California Mortgage Fund III LLC CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Company Ownership CA NIA Campany CA NIA Campany CA NIA Campany CA NIA Campany CA CA NIA Campany CA CA CA NIA CA .				
		MML1C		
Cornerstone California Mortgage Fund III LLC Massachusetts Mutual Life Insurance 0000		MMLIC		
	100.000	1		
		MMLIC		
	84.400	MMLIC		
	5.600	MMLIC		
Massachusetts Mutual Life Insurance	400 000	MMLIC		
		MMLIC		
Win. Das rings Ltd. Market Special Win. Market Special Market Spec	·	MMLIC		
	100.000	MMLIC		
		MMLIC		
Massachusetts Mutual Life Insurance				
		MMLIC		ļl
Massachusetts Mutual Life Insurance				
		MMLIC		
	100.000	MMLIC		
0000 B2-1563809 CCB Montford Park LLC DE NIA. Company Ownership.		MML1C		
		MMLIC		
Massachusetts Mutual Life Insurance				
		MMLIC		
Massachusetts Mutual Life Insurance				
		MMLIC		
	5.900	MMLTC		
0000	94.500	MMLIC		
	5.500	MMLIC		
Massachusetts Mutual Life Insurance				
	57.200	MMLIC		
Massachusetts Mutual Life Insurance Landmark Manchester Holdings LLC DE NIA Company Ownership.	400 000	MMLIC		
	100.000	MMLIC		
	100.000	MMLIC		
Massachusetts Mutual Life Insurance	100.000			
	100.000	MMLIC		
Massachusetts Mutual Life Insurance				
	95.000	MMLIC		
Salomon Brothers Commercial Mortgage Trust		MMLIC		
Managachusetts Mar Lister State Wal Life Instrume		MINILIO		
	84.200	MMLIC		ļ
		MMLIC		
Massachusetts Mutual Life Insurance				
.0000 Ten Fan Pier Boulevard LLC DE NIA Company Ownership.		MMLIC	-	
		MMLIC		
0000	95.000	MMLIC		
Wassachusetts Mutual Life Insurance			-	
	59.200	MMLIC		<u> </u>
	5.900	MMLIC	1	1 7

						A - DE I AI	L OF INSURANC	, C I	IOLL	TING COMPAINT	SISILIVI				
1	2	3	4	5	6	7	8	9	10	11	12 Type of Control	13 If Control	14	15	16
											(Ownership,	is		ls 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			. 45-4606547				UK LIW Manager LLC	DE	NIA	Massachusetts Mutual Life Insurance	O	1.000	MMLIC		
0000			45-4606547				ON LIW Wanager LLC	UE	NI A	Company Massachusetts Mutual Life Insurance	Ownership		MINILIO		
0000			45-4606547				UK LIW Member LLC	DE	NIA	Company	Ownership	99.000	MMLIC		İ
										Massachusetts Mutual Life Insurance	·				
0000			. 82-3250684				Unna, Dortmund Holding LLC	DE	NI A	Company	Ownership	100.000	. MMLIC		
0000			82-3281588				Via Ceresio Milan LLC	DE	NIA	Massachusetts Mutual Life Insurance	O	100.000	MMLIC		
0000			82-328 1388				VIA GERESIO MITAN LLG	UE	NI A	Company Massachusetts Mutual Life Insurance	Ownership	100.000	. MMLIC		
0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Company	Ownership	92.000	MMLIC		
0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			20-2970495				Waterford Development Associates	DE	NI A	Company	Ownership	90.000	MMLIC		ļ
0000			47-1993493				Waterloo London Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance	O	100.000	MMLIC		
0000			. 47-1993493				Water 100 London Hordings LLC	UE	NI A	Company Massachusetts Mutual Life Insurance	Ownership				
000Q			46-3122029				WeHo Domain LLC	DE	NIA	Company	Ownership	77.400	MMLIC		<u> </u>
0000			46-3122029				WeHo Domain LLC	DE	NIA	C.M. Life Insurance Company	Ownership	12.600	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			81-1552222				Willowwood Lakeside Master LLC	DE	NI A	Company	Ownership	50.000	MMLIC		
0000			20-5481477				Venetie Velley Funding	DE	NIA	Massachusetts Mutual Life Insurance	Ownership	90.000	MMLIC		
0000			20-346 1477				Ygnatio Valley Funding		NIA	Company Massachusetts Mutual Life Insurance	owner snrp	90.000	MINILIO		
0000			45-3168892				MassMutual Barings Dynamic Allocation Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			51-0529328		0000927972	0Q	MassMutual Premier Main Street Fund	MA	NIA	Company	Ownership	15.100	MMLIC		
0000			26-3229251		0000007070	00	MassMutual Premier Strategic Emerging Markets	MA	AULA	Massachusetts Mutual Life Insurance	0	0.000	MMLIC		
0000			20-3229201		0000927972	00	Fund	MA	NIA	Company	Ownership	2.300			
0000			04-3277550		0000927972	00	MassMutual Premier Value Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
			1				MassMutual Select Diversified International			Massachusetts Mutual Life Insurance					
0000			14-1980900		0000916053	0Q	Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance	L				
0000			01-0821120		0000916053	00	MassMutual Select Diversified Value Fund	MA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	3.400			
0000			04-3512593		0000916053	00	MassMutual Select Fundamental Growth Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
							and the state of t			Massachusetts Mutual Life Insurance					
0000			04-3513019		0000916053	0Q	MassMutual Select Large Cap Value Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NI A	Company	Ownership	29.500	MMLIC		
0000			02-0769954		0000916053	00	MassMutual Select Small Capital Value Equity Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	0.000	MMLIC		
0000			. 02-0709954		0000910033	0Q	ruliu	MA	NI A	Massachusetts Mutual Life Insurance	Owner Strip	000.0	MINILIO		
0000			. 04-3584140		0000916053	0Q	MassMutual Select Small Company Value Fund	MA	NI A	Company	Ownership	14.500	MMLIC		
							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance	1				
0000			82-3347422		0000916053	0Q	2005 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
0000			00 0055000		0000016050	00	MassMutual Select T. Rowe Price Retirement 2010 Fund	м	NII A	Massachusetts Mutual Life Insurance	Omershin	0.000	IMM 10		
0000			. 82-3355639		0000916053	UV	MassMutual Select T. Rowe Price Retirement	MA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	0.000			
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	00	2020 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
			00 0447407				MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance	L				
0000			82-3417420		0000916053	UQ	2025 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		

	PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM														
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
											Туре	lf			
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board,	Owner-		SCA	
		NAIG				Exchange	Names	Domi-	ship		Management,	ship		Filing	
Group		NAIC Company	ID	Federal		if Publicly Traded (U.S. or	Names of Parent, Subsidiaries	ciliary	to	Directly Controlled by	Attorney-in-Fact, Influence,	Provide Percen-	Ultimate Controlling	Re- quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	Loca- tion	Reporting Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000	Group Hamo	0000	Trainboi	ПООВ	O.I.C	intornationary	MassMutual Select T. Rowe Price Retirement	tion	Littly	Massachusetts Mutual Life Insurance	Guiery	lago	Entity (100)/1 discin(d)	(1/14)	
0000			82-3430358		0000916053	00	2030 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
0000			00 0400007		0000040050	00	MassMutual Select T. Rowe Price Retirement	MA		Massachusetts Mutual Life Insurance		0.000	188 10		
0000			. 82-3439837		0000916053	0Q	2035 Fund	MA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	0.000	MMLIC		
0000			82-3451779		0000916053	0Q	2040 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			82-3472295		0000916053	00	2045 Fund	MA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	0.000	MMLIC		
0000			82-3481715		0000916053	00	MassMutual Select T. Rowe Price Retirement 2050 Fund	MA	NI A	Company	Ownership.	0.000	MMLIC		
5000							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance	Olifor dirip.				
0000			82-3502011		0000916053	OQ	2055 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
0000			00 0000140		0000010000	00	MassMutual Select T. Rowe Price Retirement		NILA	Massachusetts Mutual Life Insurance	0hi	10,000	144 10		
0000			82-3525148		0000916053	00	2060 Fund	MA	NI A	Company	Ownership	12.600	MMLIC		
0000			82-3533944		0000916053	0Q	Balanced Fund	MA	NI A	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			47-3517233				MML Series II Asset Momentum Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
			. 47 0017200				will deries if Asset Wollertum Fund	m/		Massachusetts Mutual Life Insurance	Olifici Siri p		minici O		
0000			47-3529636				MML Series II Dynamic Bond Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
0000			47 0544000				MM Occion II Forito Detetion Ford		NII A	Massachusetts Mutual Life Insurance	0hi	05 400	144 10		
0000			47-3544629				MML Series II Equity Rotation Fund	MA	NI A	Company	Ownership	95.400	MMLIC		
0000			47-3559064				MML Series II Special Situations Fund	MA	NI A	Company	Ownership	85.500	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			27-1933828		0000916053	00	MassMutual RetireSMART 2015 Fund	MA	NIA	Company Massachusetts Mutual Life Insurance	Ownership	60.900	MMLIC		
0000			27-1933389		0000916053	00	MassMutual RetireSMART 2035 Fund	MA	NIA	Company	Ownership	59.000	MMLIC		
						Ou	massimataan notri oomistii 2000 i ana			Massachusetts Mutual Life Insurance	omor om p				
0000			27-1932769		0000916053	00	MassMutual RetireSMART 2045 Fund	MA	NI A	Company	Ownership	63.100	MMLIC		
0000			46-3289207		0000916053	00	MassMutual RetireSMART 2055 Fund	MA	NIA	Massachusetts Mutual Life Insurance	Ownership	18.500	MMLIC		
0000			40-3209207		0000910055	υ ν	massmutuai netiiesmani 2000 Funu	MA	NIA	Company Massachusetts Mutual Life Insurance	owner sirrp		MMLTC		
0000			47-5326235		0000916053	0Q	MassMutual RetireSMART 2060 Fund	MA	NI A	Company	Ownership	85.600	MMLIC		
			45 4040455							Massachusetts Mutual Life Insurance					
0000			45-1618155		0000916053	UQ	MassMutual RetireSMART Conservative Fund	MA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	0.000	MMLIC		ļ
0000			45-1618222		0000916053	00	MassMutual RetireSMART Growth Fund	MA	NI A	Company	Ownership	0.000	MMLIC		l
										Massachusetts Mutual Life Insurance					
0000			45-1618262		0000916053	00	MassMutual RetireSMART Moderate Fund	MA	NI A	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			40-1010040		00003 10003	UV	OFI Pictet Global Environmental Solution Fund		NI M	ouiiparry	OMITE SITTP	000.ע	, miniLTV		
0000			81-5311583					DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
0000			00 0005075					DE	N: 4	Massachusetts Mutual Life Insurance		0.000	144 10		
0000			93-6305075				Oppenheimer Developing Markets Fund	DE	NI A	Company Massachusetts Mutual Life Insurance	Ownership	0.000	MMLIC		
0000							Oppenheimer Developing Markets Equity UCITS .	IRL	NI A	Company	Ownership	76.900	MMLIC		<u> </u>
0000							Oppenheimer Developing Markets Equity UCITS .	IRL	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
0000							Oppenheimer Emerging Markets Innovators UCITS		NIIA	O	W -		144 10		
0000								IRL	NIA	OppenheimerFunds, Inc.	Management		MMLIC		

1	2	2	1 4	E	e	7	0	9	10	11	12	13	14	15	16
'	2	3	4	5	0	/	0	9	10	''		10	14	15	16
											Туре	"			
											of Control	Control			
											(Ownership,	is		ls 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)	*
	•						Oppenheimer Emerging Markets Local Debt UCITS			, , , , , , , , , , , , , , , , , , , ,	,		*	` '	
0000			. 34-40740DH					IRL	NI A	OppenheimerFunds, Inc.	Management	M	WLIC		
0000			46-2984739				Oppenheimer Emerging Markets Revenue ETF	IRL	NI A	OppenheimerFunds, Inc.	Management	M	MLIC		
0000			81-3492794				Oppenheimer ESG Revenue ETF	DE	NI A	OppenheimerFunds, Inc.	Management	M	MLIC		
0000							Oppenheimer Global Equity UCITS	IRL	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			81-3480754				Oppenheimer Global ESG Revenue ETF	DE	NI A	OppenheimerFunds, Inc	Management	M	MLIC		
										Massachusetts Mutual Life Insurance					
0000			46-1604428		0001562689	0Q	Oppenheimer Global Real Estate Fund	DE	NI A	Company	Ownership		MLIC		
0000			47-3676235				Oppenheimer Global Multi-Asset Growth Fund	DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			81-5010075				Oppenheimer Global Revenue ETF	DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000							Oppenheimer Global Value Equity UCITS	IRL	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			82-2693880				Oppenheimer Global Unconstrained Bond Fund	DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			81-4969331				Oppenheimer International Revenue ETF	DE	NI A	OppenheimerFunds, Inc.	Management	M	MLIC		
							Oppenheimer Preferred Securities & Income								
0000			82-3462739				Fund	DE	NI A	OppenheimerFunds, Inc	Management	M	MLIC		
							Oppenheimer Russell 2000 Dynamic Multifactor								
0000			82-2794856				ETF	DE	NI A	OppenheimerFunds, Inc.	Management	M	MLIC		
							Oppenheimer Russell 1000 Momentum Factor ETF			<u> </u>	l				
0000			82-2716323					DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			82-2759921				Oppenheimer Russell 1000 Value Factor ETF	DE	NI A	OppenheimerFunds, Inc.	Management	M	WLIC		
							Oppenheimer Russell 1000 Low Volatility	DE		l	l., .	l			
0000			82-2701797				Factor ETF	DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			82-2740997				Oppenheimer Russell 1000 Size Factor ETF	DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			82-2732571				Oppenheimer Russell 1000 Quality Factor ETF	DE	NI A	OppenheimerFunds, Inc.	Management		MLIC		
0000			. 82-2768498				Oppenheimer Russell 1000 Yield Factor ETF	DE	NI A	OppenheimerFunds, Inc.	Management	M	MLIC		
0000			00 0000400				Oppenheimer SteelPath MLP & Energy	DE		l	l., .		W 10	1	
0000			82-2222426				Infrastructure Fund	UE	NI A	OppenheimerFunds, Inc.	Management	M	MLIC		
								l			1				

Asterisk	Explanation Explanation
1 Massachusetts Mut	tual Life Insurance Company owns .85% of the affiliated debt of Jefferies Finance LLC
	wn 6.7% and includes only Great Lakes III, L.P.
3 Debt investors ov	wn 9.6% and includes only Babson Capital Loan Strategies Fund, L.P.
4 Debt investors ov	wn 7.7% and includes only Great Lakes III, L.P.
5 Debt investors ov	wn 5.9% and includes only Great Lakes III, L.P.
6 Debt investors ov	wn 7.5% and includes only Great Lakes III, L.P.

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

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

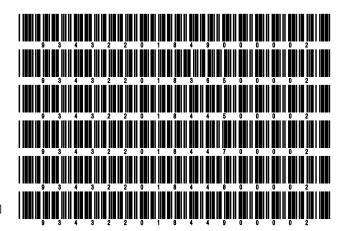
		Response
1.	Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
2.	Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
3.	Will the Reasonableness of Assumptions Certification required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

Explanation:

- 1. Not required
- 2. This line of business is not written by the company.
- 3. Not required
- 5. Not required
- 6. Not required
- 7. Not required

Bar Code:

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



OVERFLOW PAGE FOR WRITE-INS

Additional Write-ins for Liabilities Line 25

		1	2
		Current	December 31
		Statement Date	Prior Year
2504.	Funds awaiting escheat and other miscellaneous	4,162,020	3,475,167
2597.	Summary of remaining write-ins for Line 25 from overflow page	4,162,020	3,475,167

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 yilk ya		
7.	Deduct current year's other than temporary impair ent recommendation zed		
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

	Wortgage Loans	1	2
		'	Prior Year Ended
		Year to Date	December 31
- 1	Book value/recorded investment excluding accrued interest, December 31 of prior year		
1.			
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition	14,993,022	90,944,788
	2.2 Additional investment made after acquisition	5,766,245	6,054,895
3.	Capitalized deferred interest and other	471,793	1,231,199
4.	2.2 Additional investment made after acquisition Capitalized deferred interest and other Accrual of discount	108,823	196,304
5.	Unrealized valuation increase (decrease)		
6.	Unrealized valuation increase (decrease) Total gain (loss) on disposals Deduct amounts received on disposals Deduct amortization of premium and mortgage interest points and commitment fees	(152,340)	(1,777,299)
7.	Deduct amounts received on disposals	41,038,446	133,376,815
8.	Deduct amortization of premium and mortgage interest points and commitment fees	(21,076)	297,796
9.	Total foreign exchange change in book value/recorded investment excluding accrued interest	[(2,169,866)	7,606,370
10.	Deduct current year's other than temporary impairment recognized		
11.	Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	915,488,367	937,488,060
12.	Total valuation allowance		
13.	Subtotal (Line 11 plus Line 12)	915,488,367	937,488,060
14.	Deduct total nonadmitted amounts		
15.	Statement value at end of current period (Line 13 minus Line 14)	915,488,367	937,488,060

SCHEDULE BA - VERIFICATION

Other Long-Term Invested Assets

	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	186,063,997	201,480,523
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition	11,677,973	7,927,118
	2.2 Additional investment made after acquisition	14,471,663	30,436,099
3.	Capitalized deferred interest and other		
4.	Accrual of discount		
5.	Unrealized valuation increase (decrease)	18, 153, 390	33,025,208
6.	Unrealized valuation increase (decrease)	(791,847)	(971,054
7.	Deduct amounts received on disposals Deduct amortization of premium and depreciation	47,633,447	87,051,539
8.	Deduct amortization of premium and depreciation	5,443	10,506
9.	Total foreign exchange change in book/adjusted carrying value	1, 103, 441	1,807,499
10.	Deduct current year's other than temporary impairment recognized	123,613	579,350
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	182,916,114	186,063,997
12.	Deduct total nonadmitted amounts	1,478,713	424,747
13.	Statement value at end of current period (Line 11 minus Line 12)	181,437,401	185,639,250

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	4,466,803,023	4,414,366,679
2.	Cost of bonds and stocks acquired	355,709,842	1, 195, 311, 059
3.	Accrual of discount	3,644,635	7,450,962
4.	Unrealized valuation increase (decrease)	11,207,128	10,659,841
5.	Total gain (loss) on disposals	3,262,626	(3,818,124)
6.	Deduct consideration for bonds and stocks disposed of	411,567,191	1, 198, 916, 654
7.	Deduct amortization of premium	1,354,689	3,826,992
8.	Total foreign exchange change in book/adjusted carrying value	(15,404,751)	49,712,831
9.	Deduct current year's other than temporary impairment recognized	4,351,452	4, 136, 579
10.	Total investment income recognized as a result of prepayment penalties and/or acceleration fees	1,593,180	
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	4,409,542,351	4,466,803,023
12.	Deduct total nonadmitted amounts		
13.	Statement value at end of current period (Line 11 minus Line 12)	4,409,542,351	4,466,803,023

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

Samg	1	2	3	4	5	6	7	8
	Book/Adjusted	Ai-tai	Discontinuo	Non Tuesdine Assistan	Book/Adjusted	Book/Adjusted	Book/Adjusted	Book/Adjusted
	Carrying Value Beginning	Acquisitions During	Dispositions During	Non-Trading Activity During	Carrying Value End of	Carrying Value End of	Carrying Value End of	Carrying Value 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)	2,020,819,432	162,309,308	177,407,399	(16,444,372)	2,020,819,432	1,989,276,969		1,987,056,572
2. NAIC 2 (a)	1,630,345,393	1,689,193,645	1,528,449,348	261,982	1,630,345,393	1,791,351,672		1,794,027,179
3. NAIC 3 (a)	219,419,600	13,740,689	59,036,856	(1,138,740)	219,419,600	172,984,693		259,208,744
4. NAIC 4 (a)	252,413,887	51,331,001	34,346,346	(13,796,121)	252,413,887	255,602,421		248, 103, 386
5. NAIC 5 (a)	115,553,974	5,078,110	14,989,521	5,067,758	115,553,974	110,710,321		99,721,760
6. NAIC 6 (a)	23,763,656	625,009	1,971,960	3,472,827	23,763,656	25,889,532		27,001,342
7. Total Bonds	4,262,315,942	1,922,277,762	1,816,201,430	(22,576,666)	4,262,315,942	4,345,815,608		4,415,118,983
PREFERRED STOCK								
8. NAIC 1	4,200,000				4,200,000	4,200,000		4,200,000
9. NAIC 2	9, 138, 214				9, 138, 214	9, 138, 214		8,713,737
10. NAIC 3	10,264,922	516,957	225,000	(720,421)	10,264,922	9,836,458		10,718,547
11. NAIC 4	2,498,516			(1,355,395)	2,498,516	1, 143, 121		453,813
12. NAIC 5				2,055,186	344,569	2,399,755		2,413,440
13. NAIC 6	60,753				60,753	60,753		60,753
14. Total Preferred Stock	26,506,974	516,957	225,000	(20,630)	26,506,974	26,778,301		26,560,290
15. Total Bonds and Preferred Stock	4,288,822,916	1,922,794,719	1,816,426,430	(22,597,296)	4,288,822,916	4,372,593,909		4,441,679,273

(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 Carrying Value	2 Par Value	3 Actual Cost	4 Interest Collected Year-to-Date	5 Paid for Accrued Interest Year-to-Date
9199999 Totals	37,702,053	XXX	37,646,490		

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	4,973,791	17,482,743
2.	Cost of short-term investments acquired		
3.	Accrual of discount	130,673	124,219
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	(799)	344
6.	Deduct consideration received on disposals	14,995,027	34,747,778
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)	37,702,053	4,973,791
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	37,702,053	4,973,791

SCHEDULE DB - PART A - VERIFICATION

Options, Caps, Floors, Collars, Swaps and Forwards

1.	Book/Adjusted Carrying Value, December 31, prior year (Line 9, prior year)	(68,401,349)
2.	Cost Paid/(Consideration Received) on additions	1,247,079
3.	Unrealized Valuation increase/(decrease)	(33,557,648)
4.	Total gain (loss) on termination recognized	(4,285,375)
5.	Considerations received/(paid) on terminations	(4,290,886)
6.	Amortization	
7.	Adjustment to the Book/Adjusted Carrying Value of hedged item	
8.	Total foreign exchange change in Book/Adjusted Carrying Value	
9.	Book/Adjusted Carrying Value at End of Current Period (Lines 1+2+3+4-5+6+7+8)	(100,706,406)
10.	Deduct nonadmitted assets	
11.	Statement value at end of current period (Line 9 minus Line 10)	(100,706,406)

SCHEDULE DB - PART B - VERIFICATION

	Futures Cor		III ICATIO	14	
1.	Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)				
2.	2. Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cumulative Cash Change column)				
3.1	Add:				
	Change in variation margin on open contracts - Highly Effective Hedges				
	3.11 Section 1, Column 15, current year to date minus				
	3.12 Section 1, Column 15, prior year				
	Change in variation margin on open contracts - All Other				
	3.13 Section 1, Column 18, current year to date minus	23,068,494			
	3.14 Section 1, Column 18, prior year	3,502,776	19,565,718	19,565,718	
3.2	Add:				
	Change in adjustment to basis of hedged item				
	3.21 Section 1, Column 17, current year to date minus				
	3.22 Section 1, Column 17, prior year				
	Change in amount recognized				
	3.23 Section 1, Column 19, current year to date minus	23,068,494			
	3.24 Section 1, Column 19, prior year	3,502,776	19,565,718	19,565,718	
3.3	Subtotal (Line 3.1 minus Line 3.2)				
4.1	Cumulative variation margin on terminated contracts during the year		(48,060,619)		
4.2	Less:				
	4.21 Amount used to adjust basis of hedged item				
	4.22 Amount recognized	(51,563,395)	(51,563,395)		
4.3	Subtotal (Line 4.1 minus Line 4.2)				3,502,776
5.	Dispositions gains (losses) on contracts terminated in prior year:				
	5.1 Total gain (loss) recognized for terminations in prior year				
	5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year \dots				(3,502,776)
6.	Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)				
7.	Deduct total nonadmitted amounts				
Ω	Statement value at end of current period (Line 6 minus Line 7)				

Schedule DB - Part C - Section 1 - Replication (Synthetic Asset) Transactions (RSATs) Open **NONE**

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

SCHEDULE DB - VERIFICATION

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

		Book/Adjusted Carrying	Value Check
1.	Part A, Section 1, Column 14	(100,706,406)	
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance		
3.	Total (Line 1 plus Line 2)		(100,706,406)
4.	Part D, Section 1, Column 5	335,406,946	
5.	Part D, Section 1, Column 6	(413,044,858)	
6.	Total (Line 3 minus Line 4 minus Line 5)		(23,068,494)
		Fair Value Ch	neck
7.	Part A, Section 1, Column 16	(100,706,406)	
8.	Part B, Section 1, Column 13	23,068,494	
9.	Total (Line 7 plus Line 8)		(77,637,912)
10.	Part D, Section 1, Column 8	335,406,946	
11.	Part D, Section 1, Column 9	(413,044,858)	
12	Total (Line 9 minus Line 10 minus Line 11)		
		Potential Exposur	e Check
13.	Part A, Section 1, Column 21	171, 162, 465	
14.	Part B, Section 1, Column 20	11,977,600	
15.	Part D, Section 1, Column 11	183,140,065	
16.	Total (Line 13 plus Line 14 minus Line 15)		

SCHEDULE E - PART 2 - VERIFICATION

(Cash Equivalents)

	, , ,	1	2
		Year To Date	Prior Year Ended December 31
1.	Book/adjusted carrying value, December 31 of prior year	287,825,540	131,990,044
2.	Cost of cash equivalents acquired	3,098,776,505	7,272,103,557
3.	Accrual of discount	1,688,661	2,792,546
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	(332)	1,716
6.	Deduct consideration received on disposals	3, 134, 852, 770	7,119,062,323
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)	253,437,604	287,825,540
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	253,437,604	287,825,540