# **QUARTERLY STATEMENT**

**OF THE** 

**C.M.** Life Insurance Company

**TO THE** 

**Insurance Department** 

**OF THE** 

**STATE OF** 

FOR THE QUARTER ENDED MARCH 31, 2018

LIFE AND ACCIDENT AND HEALTH

2018



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

## **QUARTERLY STATEMENT**

AS OF MARCH 31, 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 l		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 sets were described in the statement of the scope of the statement of the scope of the attestation by the sets were the scope of the statement of the statement of the scope of the statement of the scope of t	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				<ol> <li>State the amenda</li> <li>Date filed</li> </ol>		

3. Number of pages attached.....

# **ASSETS**

Novel   Nove				Current Statement Date		4
1. Domes 2. A 169, 369, 507 2. Reference decides 2. Common contacts 3. Morgage bare on real estates: 3. Trigulare estates 3. Offer from the lates 4. The contacts excapated by the company (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 4. Preparette best for the production of income (less S excurate variety) 5. Coals (16			·	2 Nonadmitted Assets		
2. Solucies 2.1 Potentinaria discloids 2.2 Comment activities 3.1 Final Interval 3.1 Final Interval 3.2 (Comment activities) 3.1 Final Interval 3.2 (Comment activities) 4. Replace activities 4. Programmic activities activities activities activities 5. Comment (Samuella) 4. 2 Programmic activities activities activities activities 4. 3 Programmic activities activities activities 5. Comment (Samuella) 4. 3 Programmic activities (Samuella) 5. Comment (Samuella) 5. Comment (Samuella) 6. Comment (	1.	Bonds		Tronadimited 7100010		
2.1 Preference decises			, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,,,,,,
2.2 Common months 3.1 Pilet form 3.2 Pilet form 3.2 Pilet form 3.3 Pilet form 3.3 Pilet form 3.4 Pilet form 3.5 Pilet form 3.5 Pilet form 3.6 Pilet form 3.6 Pilet form 3.7 Pilet form 3.7 Pilet form 3.7 Pilet form 4.1 Pilet form 4.1 Pilet form 4.1 Pilet form 4.2 Pilet form 4.2 Pilet form 4.3 Pilet form 4.3 Pilet form 4.4 Pilet form 4.4 Pilet form 4.5			26.506.974		26.506.974	26.560.290
1. Mortgage harms on rest estable: 3. Pice Harms 3. 2 Citier than first liers. 3. Pice Harms 3. 2 Citier than first liers. 4. Proporties coupped by the company (less 8 and company). 4. Proporties coupped by the company (less 8 and company). 4. Proporties half for talk production of locome (loss). 5. Cash (\$						
3 - 1 Piec fore	3.		,,		.,,	, , ,
3.2 Other ham list lares 4. Proprieties coccipied by the company (less & encurcularizations) 4.2 Properties held for the production of income stees 5.			936,728,682		936,728,682	937,488,060
4. Properties ded for the production of income (less 4 countries) 4. 2 Properties ded for the production of income (less 5 countries) 5. Genet (6						,,
### Contract teams of the first production of income (less \$ encombrished)  ### A Properties held for size (less \$ encombrished)  ### A Properties held for	4.	Real estate:				
4.2 Properties hed for the production of income (sees						
4.3 Properties held for safe (less \$ enzumbances)  5. Cash (\$		4.2 Properties held for the production of income (less				
encumbrances) 5. Cash (\$		\$ encumbrances)				
(\$ 77, 965, 123 ) and short-term   147, 968, 237						
Ministration   Mini	5.	Cash (\$54,921,262 ), cash equivalents				
Ministration   Mini		(\$77,965,123 ) and short-term				
6. Contract toms (including \$ premium notes) 146, 799, 081   146, 799, 081   147, 043, 355   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 157, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 197, 191   308, 191		·	147,868,297		147,868,297	304,328,282
8. Other invested assets 194, 887 124 194, 867 124 246, 877, 248 278, 771, 246 287, 771, 247, 247, 247, 247, 247, 247, 247, 247	6.	·			146,799,081	148,004,355
9. Receivables for securities 10. Securities Inding retrieveded collateral assets 11. Aggraged wither-lies for invested assets 12. Subtotals, cash and invested assets (L. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	7.	Derivatives	335,978,459		335,978,459	396, 157, 119
10. Securities lending reinvested collateral assets 11. Aggregate write-ins for invested assets 11. Aggregate write-ins for invested assets 12. Subtotats, cash and invested assets 13. Title plants less \$	8.	Other invested assets	194,887,124	436,242	194,450,882	185,639,250
10. Securifies lending reinvested collateral assets	9.	Receivables for securities	246,817,248		246,817,248	218,771,246
12 Subtotals, cash and livested assets (Lines 1 to 11)	10.					
12 Subtotals, cash and livested assets (Lines 1 to 11)	11.	Aggregate write-ins for invested assets				
only)	12.				6,524,476,229	6,657,191,335
14. Investment income due and accrued 95,583,689 485,975 95,107,724 100,533,167 15. Premiums and considerations: 15.1 Uncollected premiums and agents' balances in the course of collection 15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$	13.	Title plants less \$ charged off (for Title insurers				
15. Premiums and considerations: 15.1 Uncollected premiums, agents' balances in the course of collection 15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including) \$		only)				
15. Premiums and considerations: 15.1 Uncollected premiums, agents' balances in the course of collection 15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including) \$	14.	Investment income due and accrued	95,593,699	485,975	95, 107, 724	100,533,167
15.2 Deferred premiums, agents' balances and installments booked but deferred and not yet due (including \$	15.					
deferred and not yet due (including \$ earned but unbilled premiums)		15.1 Uncollected premiums and agents' balances in the course of collection	117,689		117,689	80,804
earned but unbilled premiums) (30,342,363) (30,342,363) (28,604,680)  15.3 Accrued retrospective premiums (\$		15.2 Deferred premiums, agents' balances and installments booked but				
15.3 Accrued retrospective premiums (\$		deferred and not yet due (including \$				
Contracts subject to redetermination (\$ )		earned but unbilled premiums)	(30,342,363)		(30,342,363)	(28,604,680)
16. Reinsurance:  16.1 Amounts recoverable from reinsurers  16.2 Funds held by or deposited with reinsured companies  16.3 Other amounts receivable under reinsurance contracts  7, 475, 683  7, 475, 68		15.3 Accrued retrospective premiums (\$				
16.1 Amounts recoverable from reinsurers		contracts subject to redetermination (\$				
16.2 Funds held by or deposited with reinsured companies 16.3 Other amounts receivable under reinsurance contracts 7, 475,683 7, 475,683 7, 475,683 7, 475,683 7, 475,683 7, 475,683 7, 475,683 7, 475,683 7, 475,683 7, 475,683 8, 227, 415  17. Amounts receivable relating to uninsured plans 18.1 Current federal and foreign income tax recoverable and interest thereon 18.2 Net deferred tax asset 997,388,799 71,314,546 26,074,253 25,679,840 927,130 927,130 946,678  26. Electronic data processing equipment and software 27. Furniture and equipment, including health care delivery assets (\$	16.	Reinsurance:				
16.3 Other amounts receivable under reinsurance contracts 7, 475, 683 7, 475, 683 6, 227, 415 17. Amounts receivable relating to uninsured plans 18.1 Current federal and foreign income tax recoverable and interest thereon. 18.2 Not deferred tax asset. 97, 388, 799 71, 314, 546 26, 074, 253 25, 679, 840 19. Guaranty funds receivable or on deposit. 927, 130 927, 130 927, 130 946, 678 20. Electronic data processing equipment and software 21. Furniture and equipment, including health care delivery assets (\$ ) 22. Not adjustment in assets and liabilities due to foreign exchange rates 300,045 300,045 301,243 24. Health care (\$ ) and other amounts receivable 70 and other amounts receivable 70 and other amounts receivable Protected Cell Accounts (Lines 12 to 25) 6,799,429,362 25. Aggregate write-ins for other than invested assets 3,516,072 3,448,052 68,020 739,020 26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) 6,779,429,362 27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) 7,799,429,362 28. Total (Lines 26 and 27) 8,574,164,945 78,603,079 8,495,561,866 8,657,284,084  DETAILS OF WRITE-INS 1101. 1102. 1103. 1104. 1105. 1106. 1107. 1108. Summary of remaining write-ins for Line 11 from overflow page 1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above) 2501. Missel Ianeous other assets 141,288 73,268 58,020 739,020 2592. Cash advanced to agents 3,374,784 3,374,784 2509. Summary of remaining write-ins for Line 25 from overflow page 199. Cash advanced to agents 3,374,784 3,374,784		16.1 Amounts recoverable from reinsurers	41,794,913	2,918,264	38,876,649	16,334,540
17. Amounts receivable relating to uninsured plans  18.1 Current federal and foreign income tax recoverable and interest thereon  18.2 Net deferred tax asset  29.7,388,799  71,314,546  26,074,253  25,679,840  927,130  946,678  20. Electronic data processing equipment and software  21. Furniture and equipment, including health care delivery assets  (\$		16.2 Funds held by or deposited with reinsured companies				
18.1 Current federal and foreign income tax recoverable and interest thereon       97,388,799       71,314,546       26,074,253       25,679,840         19. Guaranty funds receivable or on deposit       927,130       927,130       946,678         20. Electronic data processing equipment and software       21. Furniture and equipment, including health care delivery assets       (\$       927,130       946,678         22. Net adjustment in assets and liabilities due to foreign exchange rates       300,045       300,045       301,243         24. Health care (\$       ) and other amounts receivable       300,045       300,045       301,243         25. Aggregate write-ins for other than invested assets       3,516,072       3,448,052       68,020       739,020         26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)       6,741,684,138       78,603,079       6,683,081,059       6,779,429,362         27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts       1,832,480,807       1,832,480,807       1,877,854,722         28. Total (Lines 26 and 27)       8,574,164,945       78,603,079       8,495,561,866       8,657,284,084         DETAILS OF WRITE-INS         1101.       1102.         2501. Miscellaneous other assets       141,288       73,668       68,020       739,020		16.3 Other amounts receivable under reinsurance contracts	7,475,683		7,475,683	6,227,415
18.2 Net deferred tax asset	17.	Amounts receivable relating to uninsured plans				
19. Guaranty funds receivable or on deposit	18.1	Current federal and foreign income tax recoverable and interest thereon				
20. Electronic data processing equipment and software	18.2	Net deferred tax asset	97,388,799	71,314,546	26,074,253	25,679,840
21. Furniture and equipment, including health care delivery assets (\$	19.	Guaranty funds receivable or on deposit	927 , 130		927 , 130	946,678
S	20.	Electronic data processing equipment and software				
22. Net adjustment in assets and liabilities due to foreign exchange rates       300,045       300,045       301,243         23. Receivables from parent, subsidiaries and affiliates       300,045       300,045       301,243         24. Health care (\$ ) aggregate write-ins for other than invested assets       3,516,072       3,448,052       68,020       739,020         26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)       6,741,684,138       78,603,079       6,663,081,059       6,779,429,362         27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts       1,832,480,807       1,832,480,807       1,832,480,807       1,832,480,807       1,877,854,722         28. Total (Lines 26 and 27)       8,574,164,945       78,603,079       8,495,561,866       8,657,284,084         DETAILS OF WRITE-INS         1101.       102.         1103.       199. Summary of remaining write-ins for Line 11 from overflow page       141,288       73,268       68,020       739,020         2501. Miscel laneous other assets       141,288       73,268       68,020       739,020         2502. Cash advanced to agents       3,374,784       3,374,784       3,374,784         2503.       2598. Summary of remaining write-ins for Line 25 from overflow page       50,000,000,000,000,000,000,000,000,000,	21.					
23. Receivables from parent, subsidiaries and affiliates	22	·				
24. Health care (\$		,				
25. Aggregate write-ins for other than invested assets 3,516,072 3,448,052 68,020 739,020 26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25) 6,741,684,138 78,603,079 6,663,081,059 6,779,429,362 27. From Separate Accounts, Segregated Accounts and Protected Cell Accounts 1,832,480,807 1,832,480,807 1,877,854,722 28. Total (Lines 26 and 27) 8,574,164,945 78,603,079 8,495,561,866 8,657,284,084  DETAILS OF WRITE-INS  1101.  1102.  1103.  11198. Summary of remaining write-ins for Line 11 from overflow page 11199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)  2501. Miscel laneous other assets 141,288 73,268 68,020 739,020 2502. Cash advanced to agents 3,374,784 3,374,784 2503.  2598. Summary of remaining write-ins for Line 25 from overflow page 12503.  2598. Summary of remaining write-ins for Line 25 from overflow page 12504.						
26. Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)						
27. From Separate Accounts, Segregated Accounts and Protected Cell		Total assets excluding Separate Accounts. Segregated Accounts and				
Accounts	27.	From Separate Accounts. Segregated Accounts and Protected Cell				
DETAILS OF WRITE-INS  1101. 1102. 1103. 1198. Summary of remaining write-ins for Line 11 from overflow page 1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)  2501. Miscel laneous other assets 141,288 73,268 68,020 739,020 2502. Cash advanced to agents 3,374,784 3,374,784 2503. 2598. Summary of remaining write-ins for Line 25 from overflow page		Accounts			1,832,480,807	1,877,854,722
1101	28.	Total (Lines 26 and 27)	8,574,164,945	78,603,079	8,495,561,866	8,657,284,084
1102		DETAILS OF WRITE-INS				
1103	1101.					
1198. Summary of remaining write-ins for Line 11 from overflow page       1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)         2501. Miscellaneous other assets       141,288       73,268       68,020       739,020         2502. Cash advanced to agents       3,374,784       3,374,784         2503.       2598. Summary of remaining write-ins for Line 25 from overflow page       ————————————————————————————————————	1102.					
1199. Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)         2501. Miscellaneous other assets       .141,288       .73,268       .68,020       .739,020         2502. Cash advanced to agents       .3,374,784       .3,374,784          2503.             2598. Summary of remaining write-ins for Line 25 from overflow page	1103.					
2501. Miscellaneous other assets	1198.	Summary of remaining write-ins for Line 11 from overflow page				
2502. Cash advanced to agents	1199.					
2503	2501.				68,020	739,020
2598. Summary of remaining write-ins for Line 25 from overflow page	2502.	Cash advanced to agents	3,374,784	3,374,784		
	2503.					
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 3,516,072 3,448,052 68,020 739,020	2598.	Summary of remaining write-ins for Line 25 from overflow page				
	2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	3,516,072	3,448,052	68,020	739,020

# LIABILITIES, SURPLUS AND OTHER FUNDS

Aggregate manne for its contracts   3,982,277,582   loss   included in Line   3.   Section   S	F	LIADILITIES, SURPLUS AND OTHER FU	1100	
1. Appropriate receive for the contracts \$ 3,982,277,52 (see S) (including 8 one for audient and health core start principles \$   Modes Reserve)  2. Lightline disposition or the start principles of the contract			1 Current	2 December 31
Appropries reserve for accident out the final contracts (including \$ Modes Preserve)   5,360,207,507   4 00,000,000			Statement Date	Prior Year
2. Agrangate recover to accident and health controls producing \$ Mackon Recovery	1.	Aggregate reserve for life contracts \$	0 000 007 550	4 000 000 000
1. Listility for desposity operatives including \$ Modes Reservey 90.522 241 8.8,175, 205 Contract claims: 1, 10, 148, 501 Contract claims: 1, 148, 501	_			
4 Contract claims: 4 1.1 Miles 4 1.1 Miles 5 Polyconton for Design 5 Polyconton for Design 6 Polyconton for Engineering dividends and coopons payable in following calendary year - estimated amounts: 6 1. Dividends apportunes for payment (including 3 Modes) 7. Amount provisionally held for deferred dividend pulses and included in line 6 8 Polyconton for apportune for following calendary year - estimated amounts: 7. Amount provisionally held for deferred dividend pulses and included in line 6 8 Polyconton for dividend for deferred dividend pulses and included in line 6 8 Polyconton for dividend for deferred dividend pulses and included in line 6 8 Polyconton for dividend for deferred dividend pulses and included in line 6 8 Polyconton for dividend for deferred dividend pulses and included in line 6 8 Polyconton for dividend for deferred dividend pulses and included in line 6 8 Polyconton for department of the dividend pulses and included in line 6 8 Polyconton for department of the dividend pulses and included in line 6 8 Polyconton for department of the dividend pulses and included in line 6 9 Polyconton for department of the dividend pulses and included in line 6 9 Polyconton for department of the dividend pulses and included in line 6 9 Polyconton for department of the dividend pulses and included pulses				
4. Lille 4.0 Accident and health 4. and company 5. the set unusual 4. A section and health 5. and company 5. the set unusual 5. Previous for policy foldered and company on the set of the set unusual 6. Previous for policy foldered distinct and company of the set of the set unusual 6. Distinct and company of the set of				
5. Provision for priority discrete discrete discrete account propriet including 3 houses of the annium and the annium a			16,881,973	13,448,404
6. Provision for policyholisene divisiondia and coupros asystein fortolowing calehand year - selamated amounts: 6. Divisionativa may et apportuned (including \$ Modeo) 6. 2. Divisionativa may et apportuned (including \$ Modeo) 6. Premiama and annully condicionation for life and academic year defeated colorated resolutions of the annual academic year and health premiums 6. Premiama and annully condicionation for life and academic year defeated in the e. 6. Premiama and annully condicionation for life and academic year defeated in the ellipse of the premiums 6. Control traibilities or premium including \$ academic resolution and health experience rating perfunds, including the liability of \$ academic resolution of the premium of the public of the health of the premium of the public of the health of the public of the premium of the public of the health of the public of the publ				
6 - Dividends apportions for pagment (including 5 Motion). 6 - Dividends row of superprison (including 5 Motion). 7 - Dividends row of superprison (including 5 Motion). 8 - Occurrent including 5 Motion). 8 - Occurrent including 5 Motion (including 5 Secretary of the Committee of Committee o				
6. 2. Divisioner and year approximately provided provided in Modes)  7. Prenuture and arriving treating instruction of a provided in Modes)  8. Prenuture and arriving condensations for the and accordinal and health contracts sectioned in adversor less  9. Contract liabilities and included discontracts  9. Summary values on extracted contracts  9. Summary values on extracted and annually contracts  9. Summary values on extract values  9. Summary values on extract values  9. Summary values values on extract values  9. Summary values values on extract values  9. Summary values va	6.			
G. Couprons and similar branches foresidenty and societies and included in Line 6  7. Prenumer and strandy considerations to title and accelerate and health contracts exceeded in advance less 2  7. Contract licitations and contracts control of contracts and strandy contracts and health prenumers 3  8. Surrender visibles on canceled contracts 3  8. Surveyors Az 3  9. Other and make a product of which \$ 100 per control of contracts of which \$ 100 per control of which \$ 100 per contr				
7. A mount provisionally held for defended olicides not included in Line 6.  8. Premium and analyst condicionates for life and according a product in the filter of the control of the con				
8. Plenums and annuly considerations for tile and accident and health permission.  9. Control listofillies and induced intervalves. Including \$ accident and health permission.  9. Provisions to experience railing relateds of which \$ accident seed health permission.  9. Provisions to experience railing relateds of which \$ is for medical loss ratio related per the Public Health experience railing relateds of which \$ is for medical loss ratio related per the Public Health Service Act    9. Other amounts psycletic on reinsurance, including \$ assumed and \$ 300.884    9. 4 instead Ministrations Planes and Amount of the Amount of t	7			
S discount involving so discount involving so accident and health premiume 5.5.256 5.122  Ochretical biblishies not included deservative involved in cancelled contracts and solutions of the service of		·		
9. Contract labilities not included delevalver. 19. 3 Surrounds values on canadred contracts 20. 1 Surrounds values on canadred contracts 21. Surrounds values on canadred contracts 22. Surrounds values on canadred values is for medical tosts ratio relatate per the Public Health Service Act 23. Other amounts payable on reinsurance, including \$ assumed and \$ ,300,894 244 bits 300,864 30	0.	\$	5.235	6.122
9.2 Provision for expensione rating refunds, including the liability of \$ is for medical loss ratio reforms after refunds of which \$ is for medical loss ratio reforms per the Public Neath Service Act Service Act \$ 300,864   300,864   214,015   300,864   30	9.		, , , , , , , , , , , , , , , , , , , ,	,
experience rating refunds of which \$ sit for medical loss ratio rebate per the Public health Service Act.				
Service Act				
9.3 Other amounts payable on renaurance, including \$				
Cented				
9.4 Interest Maintenance Reserve			200 064	214 015
10. Commissions to agents due or accrued-life and annually contracts \$		Ceded	10 107 882	
\$ and depocitype contract funds \$   1. Commissions and expense allowances payable on insilination assumed   3.58   1.028.218   1. Commissions and expense allowances payable on insilination assumed   3.58   1.028.218   1. Transfers to Separate Accounts due or accrued (reft (including \$ (5.548,045)) accrued for expense allowances recognized in reserves, net or insilination and interest thereon \$ (5.72,747)   1. Transfers to Separate Accounts due or accrued (reft) (including \$ (5.548,045)) accrued for expense \$ (5.72,747)   1. Transfers to Separate Accounts (including \$ (2.854,621) on realized capital gains (losses)   7.244,272   8.488,782   1. Transfers to resistance by company as agent or trustee   (5.814,461)   (4.82,165)   1. Transfers to resistance by company as agent or trustee   (3.814,461)   (4.82,165)   1. Amounts withheld or resistance by company as agent or trustee   (3.814,461)   (4.82,165)   1. Amounts withheld or resistance by company as agent or trustee   (3.814,461)   (4.82,165)   1. Amounts withheld or resistance by company as agent or trustee   (3.814,461)   (4.82,165)   1. Amounts withheld or resistance by company as agent or trustee   (3.814,461)   (4.82,165)   1. Amounts withheld or resistance and items not allocated   (4.84,65,331)   1. Amounts withheld or expenses and instance and items not allocated   (4.84,65,331)   1. Amounts withheld or expenses and admitted and contract thereon \$ (3.84,65)   1. Amounts withheld or expenses and admitted and admitted and admitted and admitted thereon \$ (3.84,65)   1. Amounts withheld or expenses and admitted and admitted and admitted thereon \$ (3.84,65)   1. Amounts withheld or expenses and agents if not included above   (3.84,65)   1. Amounts withheld or expenses and agents if not included above   (3.84,65)   1. Amounts withheld or expenses and agents if not included above   (3.84,65)   1. Amounts withheld or expenses and agents if not included above   (3.84,65)   1. Amounts withheld or expenses and agents if not included above   (3.84,65)   1. Amounts w	10		10, 131,002	, 90,112,140
1.1   Commissions and expenses allowances payable on relinsurance assumed   36   1,108,716   1,717,717   1,108,716   1,717,717   1,108,716   1,717,717   1,717   1,108,716   1,717,717   1,108,716   1,717,717   1,7	'0.			
1.   General expenses due or accrued	11.			
13. Transfers to Separate Accounts due or accrued (net) (including \$				
allowances recognized in reserves, net of reinsured allowances) (6.172,77) (5.805,458) 15.10 Lurrent federal and toerign income taxes, including \$ 22,854,821 on realized capital gains (losses) 12,914,272 3,8498,781 15.12 Net deferred tax liability 15.12 Net deferred tax income 16.13 Net deferred tax income taxes, including \$ 22,854,821 on realized capital gains (losses) 12,914,272 3,8498,781 16. Unearmed investment income (1581,446) (1462,165 17. Amounts brief for realized day company as agent or trustee (1581,446) (1462,165 18. Amounts held for agents' account, including \$ agents' credit balances (1581,446) (1462,165 18. Amounts held for agents' account, including \$ agents' credit balances (1581,446) (1462,165 18. Amounts held for agents' account, including \$ agents' credit balances (1581,446) (1462,165 18. Amounts held for agents' account, including \$ agents' credit balances (1581,446) (1462,165 18. Amounts held for agents' account, including \$ agents' credit balances (1581,446) (1462,165 18. Amounts held for agents' account, including \$ agents' credit balances (1581,446) (1462,165 18. Amounts held for agents' accounts held included above (1581,446) (1462,165 18. Amounts held for agents' accounts held included and certified (\$ ) reinsurers (1581,446) (1582,446) (15		Transfers to Separate Accounts due or accrued (net) (including \$(5,548,045) accrued for expense		
15.1   Current federal and foreign income taxes, including \$ 22,854,821 on realized capital gains (lossess)   12,914,272   8,498,785		allowances recognized in reserves, net of reinsured allowances)		
15.2   Net deferred tax liability	14.	Taxes, licenses and fees due or accrued, excluding federal income taxes	912,909	1,329,518
16. Unparmed investment income   (581,446)   (462,165   16. Amounts held for agents' account, including \$ agents' credit balances   (581,446)   (462,165   18. Amounts held for agents' account, including \$ agents' credit balances   (20,64,781   48,496,383   20. Net adjustment in assets and lisabilities due to foreign exchange rates   (20,64,781   48,496,383   20. Net adjustment in assets and lisabilities due to foreign exchange rates   (20,64,781   48,496,383   20. Net adjustment in assets and lisabilities due to foreign exchange rates   (20,64,781   48,496,383   20. Net adjustment in assets and lisabilities due to foreign exchange rates   (20,64,781   48,496,383   20. Net adjustment assets and lisabilities due to foreign exchange rates   (20,64,781   48,496,383   20. Net adjustment assets and lisabilities of the control of the contr				
17. Amounts withheld or relatined by company as agent or trustee   (.681,46)   (.462, 165   18. Amounts held for agents' account, including \$ agents' credit balances   (.681,46)   (.462,165   18. Amounts held for agents' account, including \$ agents' credit balances   (.464,66,392   .464,66,392		·		
18.   Amounts held for agents' account, including \$ agents' credit balances   20,664,781   48,496,393     20.   Not adjustment in assets and liabilities due to foreign exchange rates   20,664,781   48,496,393     21.   Liability for benefits for employees and agents if not included above   22.   Borrowed money \$ and interest thereon \$   24.01 Asset valuation reserve   24.01 Asset valuation reserve   24.01 Asset valuation reserve   24.02 Persurance in unauthorized and certified (\$ ) companies   539,985   1,005,500     24.03 Fersurance in unauthorized and certified (\$ ) companies   33,405,596   55,099,71,105,500     24.03 Fersurance in unauthorized and certified (\$ ) reinsurers   24.04 Payable to parent, subsidiaries and affiliates   24.05 Payable to parent, subsidiaries and affiliates   24.05 Payable to resource   24.05 Payable for securities   24.05 Payable for securit				
20. Not adjustment in assets and liabilities due to foreign exchange rates				
1.   Liability for benefits for employees and agents if not included above and interest thereon \$				
Borrowed money \$		, and the second se		
Miscellaneous liabilities:   24 of 1 Asset valuation reserve   24 0.2 Perinsurance in unauthorized and certified (\$   50,085   1,005,500   24 0.2 Perinsurance in unauthorized and certified (\$   24 0.4 Psyable to parent, subsidiaries and affiliates   33,403,538   35,097,141   24 0.5 Psyable to parent, subsidiaries and affiliates   24 0.5 Psyable to parent, subsidiaries and affiliates   24 0.5 Explain tourisating   24				
24.01 Asset valuation reserve	23.	Dividends to stockholders declared and unpaid		
24.02 Reinsurance in unauthorized and certified (\$ ) companies	24.			
24.03 Funds held under reinsurance treaties with unauthorized and certified (\$ ) reinsurers		24.01 Asset valuation reserve	84,367,554	96,331,973
24.0 Payable to parent, subsidiaries and affiliates 24.05 Liability for amounts held under uninsured plans 24.06 Liability for amounts held under uninsured plans 24.07 Prunds held under coinsurance 24.08 Payable for securities 24.09 Payable for securities 24.10 Payable for securities lending 24.11 Capital notes \$ 24.11 Capital notes \$ 374, 261,379 402,077,918 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 5.089 071, 783 5.266, 269,472 27. From Separate Accounts Statement 1.1832,480,807 1,1877,844,722 28. Total liabilities (Lines 26 and 27) 5.089 071, 783 5.266, 269,472 28. Total liabilities (Lines 26 and 27) 6.921,526,600 7,094,124,194 29. Common capital stock  2.500,000 2.500,000 30. Preferred capital stock  2.500,000 2.500,000 31. Aggregate write-ins for other than special surplus funds  3.000,000 2.500,000 32. Surplus notes  4.50,276,208 4.50,276,208 33. Gross paid in and contributed surplus 4.400,000,000 2.500,000 34. Aggregate write-ins for special surplus funds  3.50,000 2.500,000 35. Unassigned tunds (surplus)  4.50,276,208 4.50,276,208 36.1 shares common (value included in Line 29 \$ ) 36.2 shares preferred (value included in Line 29 \$ ) 36.1 shares common (value included in Line 29 \$ ) 36.2 shares preferred (value included in Line 29 \$ ) 36.1 shares common (value included in Line 29 \$ ) 37. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement)  1.571,509,266 1.577,059,980 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)  8.495,551,866 8.657,284,084 201. Per value of Lines 29 3, 346,352 3, 347,357,359,360 30. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)  8.495,551,866 8.657,284,084 202. Derivative collaters  3, 30,375,656,66 30. 490,373,116,470 30. Derivative collaters  3, 375,656,66 30. 490,373,116,470 30. 374,261,379 402,079,919 30. 375,476,470 30. 374,261,379 402,079,919 30. 374,261,379 402,079,919 30. 374,261,379 402,079,919 30. 374,261,379 402,079,919 30. 374,261,379 402,079,919 30. 374,261,379 402,079,919 30. 374,261,379 402,0				
24.05 Drafts outstanding 24.07 Funds held under uninsured plans 24.07 Funds held under coinsurance 24.07 Funds held under coinsurance 24.09 Payable for securities 24.09 Payable for securities 24.10 Payable for securities ending 24.10 Payable for securities leading 25.50 Payable for securities leading 26.50 Payable for securities leading 27.50 Payable for securities leading 28.50 Payable for securities leading 29.50 Payable for securities leading 20.50		24.03 Funds neig under reinsurance treaties with unauthorized and certified (\$ ) reinsurers	33 403 536	25 007 1/1
24.06 Liability for amounts held under uninsured plans 24.07 Erunds held under coinsurance 24.08 Derivatives 24.08 Derivatives 24.09 Payable for securities 24.10 Payable for securities lending 24.11 Capital noties \$ 24.10 Payable for securities lending 25. Aggregate write-ins for liabilities 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 27. From Separate Accounts Statement 28. Experiment of the securities securities (Lines 2 to 2 t		24.04 Fayable to patern, substituties and annates		
24.07 Funds held under coinsurance 24.08 Payable for securities 24.09 Payable for securities 24.10 Payable for securities lending 25. Aggregate write-ins for liabilities 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 27. From Separate Accounts Statement 28. 40,807 29. Total liabilities (Lines 25 and 27) 29. Common capital stock 20. 2,500,000 20. Preferred capital stock 20. 2,500,000 20. Preferred capital stock 20. Surplus notes 20. Surplus notes 21. Aggregate write-ins for other than special surplus funds 22. Surplus notes 23. Surplus notes 24. Aggregate write-ins for special surplus funds 25. Surplus notes 26. Less treasury stock, at cost: 27. Surplus (Total Lines 31+32+33+34+35-36) (including in Line 29 \$ ) 28. Less treasury stock, at cost: 28. Surplus notes 29. Surplus notes 20. Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement) 29. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 20. Each state of Lines 29 and 37 20. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 20. Each state of Lines 28 and 38 (Page 2, Line 28, Col. 3) 20. Each state accound interest 20. Def Yall view collateral 20. Surmany of remaining write-ins for Line 31 shove) 20. Interest view collateral 20. Surmany of remaining write-ins for Line 31 shove) 20. Summany of remaining write-ins for Line 31 shove) 20. Summany of remaining write-ins for Line 34 from overflow page 30. Summany of remaining write-ins for Line 34 from overflow page 30. Summany of remaining write-ins for Line 34 from overflow page 30. Summany of remaining write-ins for Line 34 from overflow page				
24 08 Derivatives		·		
24.10 Payable for securities lending				
24.11 Capital notes \$ and interest thereon \$  25. Aggregate write-ins for liabilities   \$374,261,379		24.09 Payable for securities	28,989,880	
25. Aggregate write-ins for liabilities excluding Separate Accounts business (Lines 1 to 25) 26. Total liabilities excluding Separate Accounts business (Lines 1 to 25) 27. From Separate Accounts Statement 28. Total liabilities (Lines 26 and 27) 28. Total liabilities (Lines 26 and 27) 29. Common capital stock 20. Common capital stock 20. Common capital stock 20. Surplus notes 20. Surplus notes 20. Surplus notes 20. Surplus notes 21. Aggregate write-ins for other than special surplus funds 22. Surplus notes 23. Gross paid in and contributed surplus 24. Aggregate write-ins for special surplus funds 25. Unassigned funds (surplus) 26. Less treasury stock, at cost: 27. Surplus for total clines 31+32+394-34+35-36) (including \$ ) 28. Surplus for total Lines 31+32+394-34+35-36) (including \$ ) 29. Totals of Lines 29, 30 and 37 20. Surplus for total Lines 31+32+394-34+35-36) (including \$ ) 29. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 29. DETAILS OF WRITE-INS 20. DETAILS OF WRITE-INS 20. DETAILS OF WRITE-INS 20. Derivative accrued interest 1 20, 32, 756, 626 1, 377, 167, 167, 167, 167, 167, 167, 167, 1		,		
Total liabilities excluding Separate Accounts business (Lines 1 to 25)   5,086,071,783   5,206,289,472   7787   1,832,480,807   1,877,854,722   727   7787   1,827,480,807   1,877,854,722   728   7014 liabilities (Lines 26 and 27)   6,921,552,600   7,084, 124,194   729   729   720				
27. From Separate Accounts Statement       1,832,480,807       1,877,854,722         28. Total liabilities (Lines 26 and 27)       6,921,552,600       7,084,124,722         29. Common capital stock       2,500,000       2,500,000         30. Preferred capital stock       2,500,000       2,500,000         31. Aggregate write-ins for other than special surplus funds       450,276,208       450,276,208         32. Surplus notes       450,276,208       450,276,208       450,276,208         33. Gross paid in and contributed surplus       450,276,208       450,276,208         34. Aggregate write-ins for special surplus funds       1,121,233,058       1,120,383,682         35. Unassigned funds (surplus)       1,121,233,058       1,120,383,682         36.1       shares common (value included in Line 29 \$ \$ )       )         36.2       shares preferred (value included in Line 30 \$ )       )       1,571,509,266       1,570,659,890         38. Totals of Lines 29, 30 and 37       Surplus (Total Lines 31+32x-33+34+35-36) (including \$ in Separate Accounts Statement)       1,571,509,266       1,573,159,890         39. Totals of Lines 29 and 38 (Page 2, Line 28, Col. 3)       8,495,561,866       8,657,284,084         DETAILS OF Write-INS         2501       Pepur chase agreements       230,504,111       232,861,484 <tr< td=""><td></td><td></td><td></td><td></td></tr<>				
Total liabilities (Lines 26 and 27)				
29. Common capital stock				
30. Preferred capital stock	20.	Total induffines Crities 20 at 0 27)	2 500 000	
31. Aggregate write-ins for other than special surplus funds				
Surplus notes		·		
33. Gross paid in and contributed surplus	32.	Surplus notes		
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 \$ 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) 39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) 39. DETAILS OF WRITE-INS 39. Derivative accrued interest 30.504,111 232,861,946 2502. Derivative accrued interest 30,504,111 232,861,946 2503. Derivative collateral 33,756,626 68,449,159 2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above) 374,261,379 3101. 3102. 3103. 3104. 3405. 3408. Summary of remaining write-ins for Line 31 from overflow page 3401. 3403. 3408. Summary of remaining write-ins for Line 34 from overflow page 3403. 3408. Summary of remaining write-ins for Line 34 from overflow page				
36. Less treasury stock, at cost: 36.1	34.	Aggregate write-ins for special surplus funds		
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) . 1,571,509,266 1,570,659,890 38. Totals of Lines 29, 30 and 37			1, 121, 233, 058	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) 1,571,509,266 1,570,659,890 1,571,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,573,159,890 1,574,009,266 1,574,009,266 1,573,159,890 1,574,009,266 1,574,009,2				
38. Totals of Lines 29, 30 and 37       1,574,009,266       1,573,159,890         39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)       8,495,561,866       8,657,284,084         DETAILS OF WRITE-INS         2501. Repurchase agreements       230,504,111       232,861,946         2502. Derivative accrued interest       106,152,290       97,311,647         2503. Derivative collateral       33,756,626       68,449,159         2598. Summary of remaining write-ins for Line 25 from overflow page       3,848,352       3,475,167         2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)       374,261,379       402,097,919         3101.       3102.       3103.       3103.       3103.         3199. Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)       3101 through 3103 plus 3198)(Line 31 above)       3401.         3401.       3402.       3403.       3408.       Summary of remaining write-ins for Line 34 from overflow page       3496.	27	· · · · · · · · · · · · · · · · · · ·		
39. Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)   8,495,561,866   8,657,284,084		· · · · · · · · · · · · · · · · · · ·		
DETAILS OF WRITE-INS   230,504,111   232,861,946   2502.   Derivative accrued interest   106,152,290   97,311,647   2503.   Derivative collateral   33,756,626   68,449,159   2598.   Summary of remaining write-ins for Line 25 from overflow page   3,848,352   3,475,167   2599.   Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)   374,261,379   402,097,919   3101.   3102.   3103.   3103.   3103.   3103.   3103.   3103.   3103.   3104.   3105.   3105.   3106.   3106.   3107.   3108.   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   3403.   3408.   Summary of remaining write-ins for Line 34 from overflow page   3408.   Summary of remaining write-ins for Line 34 from overflow page   3408.   Summary of remaining write-ins for Line 34 from overflow page   3408.   Summary of remaining write-ins for Line 34 from overflow page   3408.   Summary of remaining write-ins for Line 34 from overflow page   3408.   Summary of remaining write-ins for Line 34 from overflow page   3408.   34				
2501. Repurchase agreements       230,504,111       232,861,946         2502. Derivative accrued interest       106,152,290       97,311,647         2503. Derivative collateral       33,756,626       68,449,159         2598. Summary of remaining write-ins for Line 25 from overflow page       3,848,352       3,475,167         2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)       374,261,379       402,097,919         3101. 3102. 3103       3103. 3103       3103. 3103       3103. 3103       3103. 3103       3103. 3103       3103. 3103       3103. 3103       3103. 3103       3103. 3103       3104. 3103       3104. 3103       3105. 3103       3106. 3103       3106. 3103       3109. 3103       31	55.		0,400,001,000	0,007,204,004
2502. Derivative accrued interest       106,152,290       97,311,647         2503. Derivative collateral       33,756,626       68,449,159         2598. Summary of remaining write-ins for Line 25 from overflow page       3,848,352       3,475,167         2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)       374,261,379       402,097,919         3101.       3102.       3103.       3103.       3103.       3103.       3103.       3103.       3103.       3103.       3103.       3103.       3103.       3104.       3104.       3105.       3105.       3106.<	2501.		230,504.111	232,861.946
2503. Der ivat ive collateral       33,756,626       68,449,159         2598. Summary of remaining write-ins for Line 25 from overflow page       3,848,352       3,475,167         2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)       374,261,379       402,097,919         3101. 3102. 3103. 3108. Summary of remaining write-ins for Line 31 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. 3403. 3403. 3408. Summary of remaining write-ins for Line 34 from overflow page 3404. 3408. Summary of remaining write-ins for Line 34 from overflow page 3406. 34		· · · · · · · · · · · · · · · · · · ·		
2599. Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)       374,261,379       402,097,919         3101.	2503.			
3101				
3102.       3103.         3198.       Summary of remaining write-ins for Line 31 from overflow page			- , ,	402,097,919
3103.       3198.       Summary of remaining write-ins for Line 31 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				
3403				
3498. Summary of remaining write-ins for Line 34 from overflow page				
, , , , , , , , , , , , , , , , , , , ,				
	3499.	·		

# **SUMMARY OF OPERATIONS**

		1 1	2	3
		Current Year	Prior Year	Prior Year Ended
		To Date	To Date	December 31
1.	Premiums and annuity considerations for life and accident and health contracts		77,292,057	283,429,782
2. 3.	Considerations for supplementary contracts with life contingencies		80,005,215	1,564,711 295,776,401
3. 4.	Amortization of Interest Maintenance Reserve (IMR)	1 783 946		11,224,397
5.	Separate Accounts net gain from operations excluding unrealized gains or losses			
6.	Commissions and expense allowances on reinsurance ceded	15,496,487	4, 122,593	34,907,488
7.	Reserve adjustments on reinsurance ceded			
8.	Miscellaneous Income:			
	8.1 Income from fees associated with investment management, administration and contract	0.070.700	0 044 400	00 055 444
	guarantees from Separate Accounts		9,611,108	38,055,414
	8.2 Charges and fees for deposit-type contracts 8.3 Aggregate write-ins for miscellaneous income		538,469	2,215,448
9.	Totals (Lines 1 to 8.3)	173,735,541	174,872,379	667.173.641
10.	Death benefits		31,007,560	110,790,460
11.	Matured endowments (excluding guaranteed annual pure endowments)			110,730,400
12.	Annuity benefits			102,394,598
13.	Disability benefits and benefits under accident and health contracts	152,584	113,371	541,625
14.	Coupons, guaranteed annual pure endowments and similar benefits			
15.	Surrender benefits and withdrawals for life contracts	106,146,853	101,684,165	387,539,809
16.	Group conversions			
17.	Interest and adjustments on contract or deposit-type contract funds	1,043,345	927,954	3,684,030
18.	Payments on supplementary contracts with life contingencies		305,772	1,109,945
19.	Increase in aggregate reserves for life and accident and health contracts		(25,274,949)	(29,082,651)
20.	Totals (Lines 10 to 19)	144,562,480	138,565,247	576,977,816
21.	Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	0 802 304	5,549,167	34,084,539
22.	business only)  Commissions and expense allowances on reinsurance assumed			34,084,539
22.	General insurance expenses	27 243 202	19 286 022	64,071,484
24.	Insurance taxes, licenses and fees, excluding federal income taxes	3.448 761	4.022 090	10,237,842
25.	Increase in loading on deferred and uncollected premiums	241.711	141,288	(3,351,738)
26.	Net transfers to or (from) Separate Accounts net of reinsurance			(119,415,406)
27.	Aggregate write-ins for deductions		(1,633,275)	(6,353,960)
28.	Totals (Lines 20 to 27)	148,491,607	134,542,138	556,250,577
29.	Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus			
	Line 28)	25,243,934	40,330,241	110,923,064
30.	Dividends to policyholders			
31.	Net gain from operations after dividends to policyholders and before federal income taxes (Line 29			
	minus Line 30)		40,330,241	110,923,064
32.	Federal and foreign income taxes incurred (excluding tax on capital gains)	2,258,696	11,603,694	32,332,523
33.	Net gain from operations after dividends to policyholders and federal income taxes and before	22,985,238	28,726,547	78,590,541
34.	realized capital gains or (losses) (Line 31 minus Line 32)	22,903,200	20,720,347	78,590,541
34.	gains tax of \$			
	transferred to the IMR)	(10,208,257)	939 . 158	(11,534,171)
35.	Net income (Line 33 plus Line 34)	12.776.981	29.665.705	67.056.370
00.	CAPITAL AND SURPLUS ACCOUNT	12,770,001	20,000,100	01,000,010
36.	Capital and surplus, December 31, prior year	1,573,159,890	1,546,673,795	1,546,673,795
37.	Net income (Line 35)		29,665,705	67,056,370
38.	Change in net unrealized capital gains (losses) less capital gains tax of \$(5,988,135)	, , , .		
39.	Change in net unrealized oreign exchange capital gain (loss)			36,645,245
40.		13,497,257		(51,526,173)
41.	Change in nonadmitted assets	(2,734,139)		
42.	Change in liability for reinsurance in unauthorized and certified companies	474,515		(1,005,500)
43.	Change in reserve on account of change in valuation basis, (increase) or decrease			
44.	Change in asset valuation reserve	11,964,419	(6,218,547)	(15, 107, 880)
45.	Change in treasury stock			
46.	Surplus (contributed to) withdrawn from Separate Accounts during period			
47.	Other changes in surplus in Separate Accounts Statement			
48.	Change in surplus notes			
49.	Cumulative effect of changes in accounting principles			
50.	Capital changes: 50.1 Paid in			
	50.2 Transferred from surplus (Stock Dividend)			
	50.3 Transferred to surplus			
51.	Surplus adjustment:	<b></b>		
"	51.1 Paid in			
	51.2 Transferred to capital (Stock Dividend)			
	51.3 Transferred from capital			
	51.4 Change in surplus as a result of reinsurance			
52.	Dividends to stockholders			
53.	Aggregate write-ins for gains and losses in surplus	(17,797,514)	(10,271,401)	(9,678,934)
54.	Net change in capital and surplus for the year (Lines 37 through 53)		18,299,175	26,486,095
55.	Capital and surplus, as of statement date (Lines 36 + 54)	1,574,009,266	1,564,972,970	1,573,159,890
	DETAILS OF WRITE-INS			
	Revenue sharing		527,777	2,206,530
	Miscellaneous	,	10,692	8,918
	Summary of remaining write-ins for Line 8.3 from overflow page		F00 400	0.045.440
08.399.	Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	579,082	538,469	2,215,448
	Reinsurance ceded adjustment Miscellaneous charges to operations			
	Miscellaneous charges to operations			1,315,124
	Summary of remaining write-ins for Line 27 from overflow page			
	Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(1,643,606)	(1,633,275)	(6.353.960)
				(2,009,850)
	Reinsurance ceded adjustment			
	nemsurance ceded adjustment			
	Summary of remaining write-ins for Line 53 from overflow page			
	Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(17,797,514)	(10,271,401)	(9,678,934)

# **CASH FLOW**

		1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
	Cash from Operations			
1.	Premiums collected net of reinsurance		67,276,027	292,148,097
2.	Net investment income		86,285,971	289,336,526
3.	Miscellaneous income	25,420,773	14,574,291	61,053,400
4.	Total (Lines 1 to 3)	177,012,387	168, 136, 289	642,538,023
5.	Benefit and loss related payments	182,526,705	192,066,092	597,589,842
6.	Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(34,888,948)	(30,538,969)	(119,558,213)
7.	Commissions, expenses paid and aggregate write-ins for deductions	44,127,380	12,507,541	106,946,232
8.	Dividends paid to policyholders			
9.	Federal and foreign income taxes paid (recovered) net of \$ tax on capital			
	gains (losses)			26,812,351
10.	Total (Lines 5 through 9)	191,765,137	174,034,664	611,790,212
11.	Net cash from operations (Line 4 minus Line 10)	(14,752,750)	(5,898,375)	30,747,811
	Cash from Investments			
12.	Proceeds from investments sold, matured or repaid:			
	12.1 Bonds	141,537,810	322,726,884	1, 155, 256, 354
	12.2 Stocks	393,042	5,109,450	5,609,160
	12.3 Mortgage loans	11,740,227	17,851,001	131,266,638
	12.4 Real estate			
	12.5 Other invested assets	16,453,040	22,483,746	59,249,327
	12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	(104,485)	(243, 122)	833, 167
	12.7 Miscellaneous proceeds	(59,567,254)	18,156,693	32,770,652
	12.8 Total investment proceeds (Lines 12.1 to 12.7)	110,452,380	386,084,652	1,384,985,298
13.	Cost of investments acquired (long-term only):			
	13.1 Bonds	177,887,826	233, 124,019	1, 154, 754, 859
	13.2 Stocks	333,685	434,093	3,220,467
	13.3 Mortgage loans	9,468,222	1,930,222	96,999,683
	13.4 Real estate			
	13.5 Other invested assets	17,496,612	4,877,065	34,888,528
	13.6 Miscellaneous applications	(28,530,979)	(91,627,570)	568,271
	13.7 Total investments acquired (Lines 13.1 to 13.6)	176,655,366	148,737,829	1,290,431,808
14.	Net increase (or decrease) in contract loans and premium notes	(1,218,039)	289,291	4,176,044
15.	Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	(64,984,947)	237,057,532	90,377,446
	Cash from Financing and Miscellaneous Sources			
16.	Cash provided (applied):			
	16.1 Surplus notes, capital notes			
	16.2 Capital and paid in surplus, less treasury stock			
	16.3 Borrowed funds			
	16.4 Net deposits on deposit-type contracts and other insurance liabilities	6,613,824	705,284	1,721,027
	16.5 Dividends to stockholders			
	16.6 Other cash provided (applied)	(83,336,112)	(35,020,047)	20,183,093
17.	Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	(76,722,288)	(34,314,763)	21,904,120
	RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS			
18.	Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17)	(156,459,985)	196,844,394	143,029,377
19.		(100,409,300)	130,044,334	140,029,077
19.	Cash, cash equivalents and short-term investments:	304,328,282	161,298,905	161 209 005
		147,868,297	358,143,299	
	19.2 End of period (Line 18 plus Line 19.1)	141,000,231	330, 143,299	304,328,282
	pplemental disclosures of cash flow information for non-cash transactions:  11. Bond conversions and refinancing	4,505.077	8,962,926	36,780,440
20.000	2. Bank loan rollovers	3,762,957		
	13. Net investment income payment in-kind bonds	, , ,		203,833 589,861
	5. Return of capital	, , ,		
20.000				
20.000	16. Stock conversions			220,000 2,204,096

# **EXHIBIT 1**

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

Industrial life		DIRECT PREMIUMS AND DEPOSIT-TYPE C	ONTRACTS	2	3
To Date   To Date   December 31			Current Year		
1. Industrial life					
2. Ordinary life insurance					
2. Ordinary life insurance	1	Industrial life			
3. Ordinary individual annuities					
3. Ordinary individual annuities	2	Ordinary life incurance	55 515 100	58 263 603	218 073 772
4. Credit life (group and individual)	۷.	Ordinary life insurance			210,070,772
4. Credit life (group and individual)			001 440 100	EO 000 474	404 500 500
5. Group life insurance	3.	Ordinary individual annuities	231,442,169	52,868,474	494,560,569
5. Group life insurance					
6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other 10. Aggregate of all other lines of business 11. Subtotal	4.	Credit life (group and individual)			
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					
7. A & H - group	5.	Group life insurance	25,520	30,405	664,940
7. A & H - group					
7. A & H - group	6.	Group annuities			
8. A & H - credit (group and individual)  9. A & H - other  10. Aggregate of all other lines of business  11. Subtotal					
9. A & H - other	7.	A & H - group			
9. A & H - other		3 - 1			
9. A & H - other	8	A & H - credit (group and individual)			
10. Aggregate of all other lines of business  11. Subtotal	0.	The state (group and maintain)			
10. Aggregate of all other lines of business  11. Subtotal	٥	Λ % H other			
11. Subtotal	Э.	Α α 11 - Οιιιθί			
11. Subtotal					
12. Deposit-type contracts  13. Total  DETAILS OF WRITE-INS  1001.  1002.  1003.  Summary of remaining write-ins for Line 10 from overflow page.	10.	Aggregate of all other lines of business			
12. Deposit-type contracts  13. Total  DETAILS OF WRITE-INS  1001.  1002.  1003.  Summary of remaining write-ins for Line 10 from overflow page.					
13. Total 286,982,888 111,162,482 713,299,281  DETAILS OF WRITE-INS  1001	11.	Subtotal	286,982,888	111,162,482	/13,299,281
13. Total 286,982,888 111,162,482 713,299,281  DETAILS OF WRITE-INS  1001					
DETAILS OF WRITE-INS  1001	12.	Deposit-type contracts			
DETAILS OF WRITE-INS  1001					
1001.  1002.  1003.  1098. Summary of remaining write-ins for Line 10 from overflow page	13.	Total	286,982,888	111,162,482	713,299,281
1001.  1002.  1003.  1098. Summary of remaining write-ins for Line 10 from overflow page					
1001.  1002.  1003.  1098. Summary of remaining write-ins for Line 10 from overflow page		DETAILS OF WRITE-INS			
1002.  1003.  1098. Summary of remaining write-ins for Line 10 from overflow page					
1002	1001				
1003.  1098. Summary of remaining write-ins for Line 10 from overflow page	1001.				
1003.  1098. Summary of remaining write-ins for Line 10 from overflow page	1002				
1098. Summary of remaining write-ins for Line 10 from overflow page	1002.				
1098. Summary of remaining write-ins for Line 10 from overflow page					
	1003.				
1099. Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)	1098.	Summary of remaining write-ins for Line 10 from overflow page			
1099. Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)					
	1099.	Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)			

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

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 INCOME					
(1) State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$ 12,776,981	\$ 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		<u>-</u>
(4) NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$ 12,776,981	\$ 67,056,370
SURPLUS					
(5) State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$ 1,574,009,266	\$ 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	\$ 1,574,009,266	\$ 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 three months ended March 31, 2018, corrections of prior years' errors were recorded in shareholder's equity, net of tax:

	Increase (Decrease) to:									
	Р	rior		Current		Asset				
	Yε	ears'		Year		or Liability				
	Net Income			Surplus	Balances					
Deferred income tax	\$	-	\$	(15,913,941)	\$	(15,913,941)				
Total	\$	-	\$	(15,913,941)						

For the three months ended March 31, 2017, corrections of prior years' errors were recorded in shareholder's equity, net of tax:

	Increase (Decrease) to:										
	<u></u>	Prior		Current		Asset					
		Years'		Year		or Liability					
	!	Net Income		Surplus		Balances					
Other than invested assets	\$	(2,921,931)	\$	(2,921,931)	\$	(2,921,931)					
Partnerships and limited liability companies		-		(227,387)		(227,387)					
Total	\$	(2,921,931)	\$	(3,149,318)							

Of the \$3,149,318 decrease to surplus for prior year errors, \$2,921,931 was recorded as prior period adjustments and \$227,387 was recorded as a change in nonadmitted assets in the Statutory Statement of Changes in Surplus.

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

#### b. Adoption of new accounting standards

In 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. 51 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 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

- a. Mortgage loans, including mezzanine real estate loans No change
- b. Debt restructuring No change
- c. Reverse mortgages No change

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

			(1)	(2)				(3)	
			Ati		_	OTTI			
			Amortized Cost Basis			ecogniz in Loss			
		ŀ	Before	(2)		in Loss (2b		Fair Value	
			OTTI	(2a Inter		,	) i-interest		1-(2a+2b)
		L	OTT	IIILEI	esi	INOI	i-iiileiesi		1-(2a+2b)
ОТТ	TI recognized in the first quarter								
a.	Intent to sell	\$	_	\$	_	\$	_	\$	_
b.	Inability or lack of intent to retain the investment	Ψ		*		*		Ψ	
	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
	·			<del></del>		===		=	
OTT	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	_			-				
f.	Total second quarter	\$		\$		\$		\$	
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	\$	-	\$	-	\$		\$	<u>-</u>
ОТТ	The constituted in the formula arrestor								
j.	I recognized in the fourth quarter Intent to sell	\$		¢		¢		Ф	
J. K.	Inability or lack of intent to retain the investment	Φ	-	φ	-	φ	-	φ	-
κ.	in the security for a period of time sufficient to								
	recover the amortized cost basis		_		_		_		_
I.	Total fourth quarter	\$		\$		\$		\$	
	. Stat. Saidi qualtor	Ψ		<u> </u>		<u>*</u>		Ψ	
m.	Annual aggregate total			\$	-	\$	27,511		
	•								

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	Fa	air 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
Totals	\$ 84.116	\$ 56.604	\$ (27,511)	9	\$ 56.604	\$	56.886	

- (4) As of March 31, 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
 \$ (1,466,369)

 2. 12 months or longer
 \$ (2,045,128)

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

 1. Less than 12 months
 \$ 107,920,034

 2. 12 months or longer
 \$ 65,081,093

- (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.
- f. Repurchase Agreements Transactions Accounted for as Secured Borrowing:
  - (1) The Company has entered into repurchase agreements whereby the Company sells securities and simultaneously agrees to repurchase the same or substantially the same securities. These repurchase agreements are accounted for as collateralized borrowings with the proceeds from the sale of the securities recorded as a liability and the underlying securities continue to be recorded as an investment by the Company. Earnings on these investments are recorded as investment income and the difference between the proceeds and the amount at which the securities will be subsequently

reacquired is amortized as interest expense. Repurchase agreements are used as a tool for overall portfolio management to help ensure the Company maintains adequate assets in order to provide yield, spread and duration to support liabilities and other corporate needs.

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

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

#### (2) Type of Repo Trades Used

	1	2	3	4
	FIRST	SECOND	THIRD	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	\$ -	\$ -	\$	-	\$ -
f.	> 3 Months to 1 Year	\$ 58,872,500	\$ 232,277,500	\$	132,946,071	\$ 58,872,500	\$ -	\$ -	\$	-	\$ -
g.	> 1 Year	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -

			THIRD Q	UA	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.	Open – No Maturity	\$ -	\$	\$		\$	-	\$ -	\$ -	\$	-	\$ -
b.	Overnight	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
c.	2 Days to 1 Week	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
d.	> 1 Week to 1 Month	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
e.	> 1 Month to 3 Months	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
f.	> 3 Months to 1 Year	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -
g.	> 1 Year	\$ -	\$ -	\$	-	\$	-	\$ -	\$ -	\$	-	\$ -

<sup>(4)</sup> 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	U/	ARTER				SECOND (	Qι	JARTER		
		1	2		3		4	5	6		7		8
				l	AVERAGE	1					AVERAGE	1	
					DAILY		ENDING				DAILY		ENDING
		MINIMUM	MAXIMUM		BALANCE		BALANCE	MINIMUM	MAXIMUM		BALANCE		BALANCE
a.	BACV	XXX	XXX		XXX	\$	229,847,500	XXX	XXX		XXX	\$	3
b.	Nonadmitted - Subset of BACV	XXX	XXX	l	XXX	\$	-	XXX	XXX		XXX	\$	3
c.	Fair Value	\$ 229,847,500	\$ 232,277,500	\$	230,646,071	\$	229,847,500	\$ -	\$ -	\$	-	\$	;

			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	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

<sup>(6)</sup> Securities Sold Under Repo – Secured Borrowing by NAIC Designation

#### ENDING BALANCE

		1	2	3	4	5	6	7		8
										NON-
		NONE	NAIC 1	NAIC 2	NAIC 3	NAIC 4	NAIC 5	NAIC 6		ADMITTED
a.	Bonds - BACV	\$ -	\$ 229,847,500	\$ -	\$ -	\$ -	\$ -	\$	- \$	-
b.	Bonds - FV	-	229,847,500	-	-	-	-	-		-
C.	LB & SS - BACV	-	-	-	-	-	-	-		-
d.	LB & SS - FV	-	-	-	-	-	-	-		-
e.	Preferred Stock - BACV	-	-	-	-	-	-	-		-
f.	Preferred Stock - FV	-	-	-	-	-	-	-		-
g.	Common Stock	-	-	-	-	-	-	-		-
h.	Mortgage Loans - BACV	-	-	-	-	-	-	-		-
i.	Mortgage Loans - FV	-	-	-	-	-	-	-		-
j.	Real Estate - BACV	-	-	-	-	-	-	-		-
k	Real Estate - FV	-	-	-	-	-	-	-		-
1.	Derivatives - BACV	-	-	-	-	-	-	-		-
m.	Derivatives - FV	-	-	-	-	-	-	-		-
n.	Other Invested Assets - BACV	-	-	-	-	-	-	-		-
ο.	Other Invested Assets - FV	-	-	-	-	-	-	-		-
p.	Total Assets - BACV	\$ -	\$ 229,847,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-
q.	Total Assets - FV	\$ -	\$ 229,847,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$	-

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

#### (7) Collateral Received - Secured Borrowing

			FIRST Q	UA	RTER				SECOND	Ql	JARTER	
		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	\$	-	\$ -	\$	-	\$ -
b.	Securities (FV)	\$ 173,122,939	\$ 232,310,358	\$	226,856,437	\$ 230,493,641	\$	-	\$ -	\$	-	\$ -

			THIRD Q	UΑ	ARTER			FOURTH	QL	ARTER		
		9	10		11	12	13	14		15	16	٦
					AVERAGE					AVERAGE		
					DAILY	ENDING			l	DAILY	ENDING	
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE	
a.	Cash	\$ -	\$ -	\$		\$	\$ -	\$ -	\$	-	\$	- ]
b.	Securities (FV)	\$ _	\$ -	\$	_	\$ _	\$ _	\$ _	\$	_	\$	-

(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	\$ 2,417,949	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$ -
b.	Bonds - FV	-	230,493,641	-	-		-	-	-	-
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)	\$ 2,417,949	\$ 230,493,641	\$ -	\$ -	;	\$ -	\$ -	\$ -	\$ -

(9) Allocation of Aggregate Collateral by Remaining Contractual Maturity

		FAIR VALUE
a.	Overnight and Continuous	\$ -
b.	30 Days or Less	\$ 230,493,641
C.	31 to 90 Days	\$ -
d.	> 90 Days	\$ <u>-</u>

(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	QL	JARTER	
		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	\$	-	\$ -	\$	-	\$ -
b.	Securities Collateral (FV)	\$ 173,122,939	\$ 232,310,358	\$	226,856,437	\$ 230,493,641	\$	-	\$ -	\$	-	\$ -

			THIRD Q	UA	ARTER				FOURTH (	QL	JARTER			
		9	10		11	12	13	Γ	14		15		16	
					AVERAGE						AVERAGE			
					DAILY	ENDING					DAILY		ENDING	
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM		MAXIMUM		BALANCE		BALANCE	
a.	Cash (Collateral – All)	\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$	-	40	5	-
b.	Securities Collateral (FV)	\$ -	\$ -	\$	-	\$ -	\$ -	\$	-	\$	-	9	6	-

- 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 (LIHTC) 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 March 31, 2018:

CUSIP Identification	Actual Cost	Fair Value	Book / Adjusted Carrying Value	R	Mortgage- leferenced Security YES/NO)
3137G0EQ8	34,190	34,211	34,190		YES
3137G0HQ5	10,580	10,588	10,580		YES
391164AF7	444,402	426,254	430,382		NO
Total	\$ 489,172	\$ 471,053	\$ 475,152		XXX

#### p. 5\* Securities

	Investment	Number of 5*	Securities	Aggregate	BACV	Aggregate Fair Value				
		Current Year	Prior Year	Current Year	Prior Year	Current Year	Prior Year			
(1)	Bonds - AC	27	21	38,315,932	28,165,693	38,666,828	28,490,007			
(2)	LB&SS - AC	-	-	-	-	-	-			
(3)	Preferred Stock - AC	1	3	217,572	2,275,572	244,943	2,707,564			
(4)	Preferred Stock - FV	-	-	-	-	-	-			
(5)	Total (1+2+3+4)	28	24	\$38,533,504	30,441,265	\$38,911,771	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

-	•	_	Three Months Ended March 31, 2018						
		_	General Account		Separate Account				
1.	Number of CUSIPS		12			N/A			
2.	Aggregate Amount of Investment Income	\$	477,599	\$		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

a-n. 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-j. 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

#### lote 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 three months ended March 31, 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:

	March 31, 2018								
	Level 1		Level 2	Le	evel 3		Total		
Financial assets:									
Bonds:									
Special revenue	\$ -	\$	753,098	\$	-	\$	753,098		
Industrial and miscellaneous	-		2,337,204	2	,057,186		4,394,390		
Parent, subsidiaries and affiliates	-		1,608,515	6	,859,396		8,467,911		
Preferred stocks	370,216		_		87,121		457,337		
Common stock - subsidiary and affiliates	17,703,431		-		-		17,703,431		
Common stock - unaffiliated	371,862		_	3	,290,640		3,662,502		
Derivatives:									
Interest rate swaps	-		281,361,542		-		281,361,542		
Options	-		17,070,339		-		17,070,339		
Currency swaps	-		13,445,319		-		13,445,319		
Forward contracts	-		1,716,055		-		1,716,055		
Financial futures	-		22,385,205		-		22,385,205		
Separate account assets	1,832,477,119		3,688		-		1,832,480,807		
Total financial assets carried									
at fair value	\$ 1,850,922,628	\$	340,680,965	\$ 12	,294,343	\$	2,203,897,936		
Financial liabilities:									
Derivatives:									
Interest rate swaps	\$ -	\$	398,249,350	\$	-	\$	398,249,350		
Options	-		514,732		-		514,732		
Currency swaps	-		35,734,792		-		35,734,792		
Forward contracts	-		1,476,661		-		1,476,661		
Credit default swaps	-		19,031		-		19,031		
Financial futures			3,549,019		-		3,549,019		
Total financial liabilities carried									
at fair value	\$ -	\$	439,543,585	\$	-	\$	439,543,585		

For the period ended March 31, 2018, there were no significant transfers between Level 1 and Level 2.

	December 31, 2017								
	Level 1	Level 2	Level 3	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	\$ 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	Out	Gains (Losses) in Net Income	Gains (Losses) in Surplus	Purchases	Issuances	Sales	Settlements	Balance as of 3/31/2018
Financial assets:											
Bonds:											
Industrial and miscellaneous	\$ 2,213,347	\$ 91,507	\$	-	\$ 6,913	\$ (343,884)	\$ -	\$ 105,946	\$ -	\$ (16,643)	\$ 2,057,186
Parent, subsidiaries and affiliates	6,740,295	-		-	-	119,101	-	-	-	-	6,859,396
Preferred stocks	167,887	-		(167,887)	-	(26,995)	-	114,116	-	-	87,121
Common stocks - unaffiliated	3,274,658	55,361		-	91,194	(36,682)	37,823	1,652,697	-	(1,784,411)	3,290,640
Currency Swaps	 49,359	-		(49,359)	-	-	-	-	-		<u> </u>
Total financial assets	\$ 12,445,546	\$ 146,868	\$	(217,246)	\$ 98,107	\$ (288,460)	\$ 37,823	\$ 1,872,759	\$ 	\$ (1,801,054)	\$ 12,294,343

<sup>(1)</sup> 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 <sup>(1</sup>	"	(L	Gains osses) in	(l	Gains Losses) in										Balance as of
	(	01/01/2017	In		Out	Ne	et Income		Surplus	F	Purchases	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

<sup>(1)</sup> Level 3 transfers include assets that are consistently carried at fair value but have had a level change, are no longer carried at fair value, or have just begun to be carried at fair value, such as assets with no level changes but a change in the lower of cost or market carrying basis.

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

#### (4) Valuation Techniques and Inputs

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

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

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

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

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

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

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

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

March 31, 2018

	Aggregate	Admitted	Maron 01,	2010		Not Practicable (Carrying
	Fair Value	Assets	Level 1	Level 2	Level 3	Value)
Financial assets:						
Bonds:						
U. S. government and agencies	\$ 277,817,659	\$ 273,574,742	\$ -	\$ 277,817,659	\$ -	\$ -
All other governments	1,361,025	1,385,344	-	1,361,025	-	-
States, territories and possessions	32,671,567	29,846,373	-	32,671,567	-	-
Political subdivisions	16,954,104	15,709,808	-	16,954,104	-	-
Special revenue	132,871,496	121,331,599	-	132,871,496	-	-
Industrial and miscellaneous	3,592,177,578	3,479,161,890	-	1,745,259,098	1,846,918,480	-
Parent, subsidiaries and affiliates	251,386,682	248,359,151	-	33,533,957	217,852,725	-
Preferred stocks	26,879,820	26,506,974	17,780,174	-	9,099,646	-
Common stock - subsidiary and affiliates(1)	17,703,431	17,703,431	17,703,431	-	-	-
Common stock - unaffiliated	3,662,502	3,662,502	371,862	-	3,290,640	-
Mortgage loans - commercial	816,886,448	806,146,151	-	-	816,886,448	-
Mortgage loans - residential	124,675,030	130,582,531	-	-	124,675,030	-
Cash, cash equivalents and						
short-term investments	147,868,297	147,868,297	54,921,262	92,947,035	-	-
Derivatives:						
Interest rate swaps	281,361,542	281,361,542	-	281,361,542	-	-
Options	17,070,339	17,070,339	-	17,070,339	-	-
Currency swaps	13,445,319	13,445,319	-	13,445,319	-	-
Forward contracts	1,716,055	1,716,055	-	1,716,055	-	-
Financial futures	22,385,204	22,385,204	-	22,385,204	-	-
Separate account assets	1,832,480,807	1,832,480,807	1,832,477,119	3,688	-	-
Financial liabilities:						
Repurchase agreements	229,847,500	229,847,500	-	229,847,500	-	-
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	398,249,350	398,249,350	-	398,249,350	-	-
Options	514,732	514,732	-	514,732	-	-
Currency swaps	35,734,792	35,734,792	-	35,734,792	-	-
Forward contracts	1,476,661	1,476,661	-	1,476,661	-	-
Credit default swaps	19,031	19,031	-	19,031	-	-
Financial futures	3,549,019	3,549,019	-	3,549,019	-	-

<sup>(1)</sup> Common stock - subsidiary and affiliates does not include MML Bay State, which had a statutory carrying value of \$298,591,766.

December 31, 2017 Not Practicable Admitted Aggregate (Carrying Fair Value Assets Level 1 Level 2 Level 3 Value) Financial assets: Bonds \$ 280,142,008 \$ 280,142,008 \$ 273,612,414 \$ 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 277.090.387 269.585.401 66.146.912 210.943.475 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 3.274.658 5.000.044 5.000.044 1.725.386 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 short-term investments 304,328,282 304,328,282 11,528,951 292,799,331 Derivatives: 356.485.217 Interest rate swaps 356.485.217 356.485.217 20,306,086 Options 20,306,086 20,306,086 18,914,006 18,914,006 18,864,647 49,359 Currency swaps 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 68,512,468 67,834,126 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

. As of March 31, 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.

<sup>(1)</sup> 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.

_		Ma	arch 31, 2018		 e Months Ended arch 31, 2018
	Actual		Carrying	Fair	
Alt-A:	Cost		Value	Value	OTTI
a. Residential mortgage-backed securities \$	17,992,560	\$	19,967,461	\$ 23,435,847	\$ 27,511
b. Commercial mortgage-backed securities	-		-	-	-
c. Collateralized debt obligations	-		-	-	-
d. Structured securities	-		-	-	-
e. Equity investments in SCAs *	1,007,975		1,087,107	1,279,842	-
f. Other assets	-		-	-	
g. Total \$	19,000,535	\$	21,054,568	\$ 24,715,689	\$ 27,511

						`	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

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

g. Retained asset accounts - No change

#### Note 22 - Events Subsequent

Management of the Company has evaluated subsequent events through May 11, 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

There was no increase to reserves in 2017 for incurred losses and loss adjustment expenses attributable to insured events of prior years, which considered corrections of prior year errors.

#### Note 26 - Intercompany Pooling Arrangements - No change

Note 27 - Structured Settlements - No change

Note 28 - Health Care Receivables - No change

Note 29 - Participating Policies - No change

Note 30 - Premium Deficiency Reserves - No change

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

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

Note 33 - 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 requirin Domicile, as required by the Model Act?					Yes [ ]	No [ X ]	
1.2	If yes, has the report been filed with the domiciliary state?					Yes [ ]	No [ ]	
2.1	Has any change been made during the year of this statement in the reporting entity?	charter, by-laws, ar	ticles of incorporation,	or deed of settlement of the	)	Yes [ ]	No [ X ]	
2.2	If yes, date of change:							
3.1	Is the reporting entity a member of an Insurance Holding Company S is an insurer?  If yes, complete Schedule Y, Parts 1 and 1A.					Yes [ X ]	No [ ]	
3.2	Have there been any substantial changes in the organizational chart	since the prior qua	rter end?			Yes [ ]	No [ X ]	
3.3	If the response to 3.2 is yes, provide a brief description of those char	nges.						
3.4	Is the reporting entity publicly traded or a member of a publicly traded	d group?				Yes [ ]	No [ X ]	
3.5	If the response to 3.4 is yes, provide the CIK (Central Index Key) coo	de issued by the SE	EC for the entity/group.		·			
4.1	Has the reporting entity been a party to a merger or consolidation du	uring the period cov	vered by this statemen	t?		Yes [ ]	No [ X ]	
4.2	If yes, provide the name of the entity, NAIC Company Code, and state ceased to exist as a result of the merger or consolidation.	te of domicile (use	two letter state abbrev	iation) for any entity that has	3			
	1 Name of Entity	1	2 NAIC Company Code	3 State of Domicile				
5.	If the reporting entity is subject to a management agreement, including in-fact, or similar agreement, have there been any significant change If yes, attach an explanation.				Yes [	] No [ X	( ] N/A [	
6.1	State as of what date the latest financial examination of the reporting	g entity was made o	or is being made			12/31	1/2014	
6.2	State the as of date that the latest financial examination report becardate should be the date of the examined balance sheet and not the					12/31	1/2014	
6.3	State as of what date the latest financial examination report became the reporting entity. This is the release date or completion date of the date).	he examination rep	ort and not the date of	the examination (balance s	heet	05/31	1/2016	
6.4 6.5	By what department or departments? State of Connecticut Insurance Department Have all financial statement adjustments within the latest financial extatement filed with Departments?				_Yes [	] No [	] N/A [ X	
6.6	Have all of the recommendations within the latest financial examinat	tion report been cor	mplied with?		Yes [ X	( ] No [	] N/A [	
7.1	Has this reporting entity had any Certificates of Authority, licenses or revoked by any governmental entity during the reporting period?					Yes [ ]	No [ X ]	
7.2	If yes, give full information:							
8.1	Is the company a subsidiary of a bank holding company regulated by	y the Federal Rese	ve Board?			Yes [ ]	No [ X ]	
8.2	If response to 8.1 is yes, please identify the name of the bank holding	g company.						
8.3	Is the company affiliated with one or more banks, thrifts or securities	s firms?				Yes [ X ]	No [ ]	
8.4	If response to 8.3 is yes, please provide below the names and location regulatory services agency (i.e. the Federal Reserve Board (FRB), Insurance Corporation (FDIC) and the Securities Exchange Committee (FDIC) and the Securities (FDIC) and the Securitie	the Office of the Co	mptroller of the Curre	ncy (OCC), the Federal Dep				
	1 Affiliata Nama	10	2	3 4 FRB OCC	5 EDIC	6 SEC		
	Affiliate Name Baring International Investment Limited	London, UK	Janon (Olly, State)	FNB OCC	וטוט	YES		
	Barings Securities, LLC	Boston, MA			-	YES		
	MML Distributors, LLC	Fnfield CT		·····	1	YES		
	MMM Investors Services IIC	Springfield MA		······	†	VES		

1	2	3	4	5	6
Affiliate Name	Location (City, State)	FRB	OCC	FDIC	SEC
Baring International Investment Limited	London, UK				YES
Barings Securities, LLC	Boston, MA				YES
MML Distributors, LLC	Enfield, CT				YES
MML Investment Advisers, LLC	Enfield, CT				YES
MML Investors Services, LLC	Springfield, MA				YES
MML Strategic Distributors, LLC	Springfield, MA				YES
MMLISI Financial Alliances, LLC	Springfield, MA				YES
OC Private Capital, LLC	New York, NY				YES
OppenheimerFunds Distributor, Inc.	New York, NY				YES
The MassMutual Trust Company, FSB	Enfield, CT		YES		

# **GENERAL INTERROGATORIES**

9.1	Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?  (a) Honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships;  (b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting entity;  (c) Compliance with applicable governmental laws, rules and regulations;						
	(d) The prompt internal reporting of violations to an appropriate person or persons identified in the code; and						
	(e) Accountability for adherence to the code.						
9.11	If the response to 9.1 is No, please explain:						
9.2	Has the code of ethics for senior managers been amended?		Yes [ ] No [ X ]				
9.21	If the response to 9.2 is Yes, provide information related to amendment(s).						
9.3 9.31	Have any provisions of the code of ethics been waived for any of the specified officers?  If the response to 9.3 is Yes, provide the nature of any waiver(s).		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 ] No [ ]				
10.2	If yes, indicate any amounts receivable from parent included in the Page 2 amount:	\$	0				
	INVESTMENT						
	Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or other use by another person? (Exclude securities under securities lending agreements.)		Yes [ X ] No [ ]				
11.2	If yes, give full and complete information relating thereto:  Repurchase agreements, Letter stock or securities restricted as to sale - excluding FHLB Capital Stock, On deposit of as collateral - excluding collateral pledged to an FHLB.	ű					
12.	Amount of real estate and mortgages held in other invested assets in Schedule BA:	\$_	72,771,635				
13.	Amount of real estate and mortgages held in short-term investments:	\$ <u>.</u> .					
14.1 14.2	Does the reporting entity have any investments in parent, subsidiaries and affiliates?		Yes [ X ] No [ ]				
	,,	1	2				
		Prior Year-End	Current Quarter				
		Book/Adjusted	Book/Adjusted				
1101	Bonds\$	Carrying Value	Carrying Value				
14.21	DOIGE	269, 585, 404	\$248,359,151				
14.22	Preferred Stock \$ Common Stock \$	005 000 000	\$ 010,005,100				
14.23	Short-Term Investments \$	293,300,300	\$316,295,196				
14.24	Situation investments		\$				
14.20	Mortgage Loans on Real Estate \$ All Other \$	0E 070 204	\$ 94.710.022				
14.20	Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)	650 970 004	\$84,710,933 \$649,365,280				
	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 [ ]				
	It no attach a description with this atatament						

# **GENERAL INTERROGATORIES**

<ul><li>16. For the reporting entity's security lending program, state the amount of the following as of the current statement date:</li><li>16.1 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2.</li></ul>							\$		
	16.2 Total bo	ok adjuste	ed/carrying value of reinvested col	latera	assets reported on Sc	hedule [	DL, Parts 1 and 2	\$	
	16.3 Total pa	yable for s	securities lending reported on the	liabilit	y page			\$	
17. 17.1	offices, vaults or safety depo custodial agreement with a c Outsourcing of Critical Funct	Excluding items in Schedule E - Part 3 - Special Deposits, real estate, mortgage loans and investments held physically in the reporting ent offices, vaults or safety deposit boxes, were all stocks, bonds and other securities, owned throughout the current year held pursuant to a custodial agreement with a qualified bank or trust company in accordance with Section 1, III - General Examination Considerations, F. Outsourcing of Critical Functions, Custodial or Safekeeping Agreements of the NAIC Financial Condition Examiners Handbook, Complete the following:  1 2 Name of Custodian(s)  2 Custodian Address							
		1							
	Citihank N A	ne of Cust	odian(s)	333	Wast 31th Street New	Custodia Vork N	an Address v 10001		
	State Street Global Service	s		801	Pennsylvania Avenue, I	Kansas C	ity, MO 64105		
17.2	For all agreements that do no location and a complete exp		vith the requirements of the NAIC	Finan	cial Condition Examine	rs Handl	book, provide the name,		
	1 Name(s)		2 Location(s)		(	Complete	3 e Explanation(s)		
17.3 17.4	Have there been any changes If yes, give full information rela		name changes, in the custodian	(s) ide	ntified in 17.1 during th	e curren	t quarter?	Yes [	] No [ X ]
	1		2		3		4		
	Old Custodian		New Custodian		Date of Change		Reason		
	Nai Barings LLC	me of Firm	stment accounts"; "handle seculor Individual		2 Affiliation AU	liated wit	th the reporting entity (i.e.		
	designated with a "U	') manage	more than 10% of the reporting e	entity's	assets?			Yes	[ ] No [ X ]
	17.5098 For firms/individuals total assets under ma	unaffiliated anagemen	d with the reporting entity (i.e. des it aggregate to more than 50% of	ignate the re	d with a "U") listed in the porting entity's assets?	ne table	for Question 17.5, does the	Yes	[ ] No [ X ]
17.6	For those firms or individuals table below.	listed in th	e table for 17.5 with an affiliation	code o	of "A" (affiliated) or "U"	(unaffilia	ated), provide the information for	the	
	1		2		3		4		5 Investment Management
	Central Registration Depository Number		Name of Firm or Individual		Legal Entity Identifie	r (I EI)	Registered With		Agreement (IMA) Filed
	106006	Barings	LLC		MMPERQOMXYENC8A2G084		SEC		DS
	162754	IFM Inve	stors Pty Ltd				SEC		NO
8.1	Have all the filing requirement		urposes and Procedures Manual						
18.2		more of the	did not meet the filing requiremen e following: Valid cusip/PPN, aud ets.						
19.	a. Documentation necess     b. Issuer or obligor is curr	ary to peri	reporting entity is certifying the fol mit a full credit analysis of the sec contracted interest and principal p	urity o	loes not exist. nts.	J	ated 5*GI security:		
	c. The insurer has an actual expectation of ultimate payment of all contracted interest and principal.  Has the reporting entity self-designated 5*Gl securities?							. 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
	1.1 Long-Term Mortgages In Good Standing	Amount
	1.11 Farm Mortgages	\$
	1.12 Residential Mortgages	\$
	1.13 Commercial Mortgages	\$
	1.14 Total Mortgages in Good Standing	\$ 936,728,682
	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)	\$ 936,728,682
.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?	
.1	If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of domicile of the reporting entity?	Yes [ ] No [ ]

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

			Si	howing All New Reinsurance I	reaties - Cu	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	io v lei	ń		Rating	Reinsurer
NAIC Company Code	Number	Date	Name of Reinsurer	Jı	dict (	C d	Type of Reinsurer	(1 through 6)	Rating
					<b>\</b>				

**SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS** Current Year To Date - Allocated by States and Territories Direct Business Only
4 5 Life Contracts 4 Accident and Health Insurance Premiums, Including Policy, Membership and Other Fees Total Columns 2 Through 5 Active Status Life Insurance Premiums .....620,692 Other Considerations Deposit-Type Contracts Annuity Considerations .....1, 103,530 States, Etc. Alabama -AL 2. 3. .....861, 158 ...2, 315, 724 .....875,413 ..3,075,648 Alaska ΑK 14.255 Arizona .759,924 ΑZ ...2,411,642 ....1,831,129 ....1,190,212 ...12,697,416 4. 5. .....134,838 ..2,546,480 ..8,029,682 Arkansas California CA 6. 7. Colorado СО 590, 163 1,780,375 Connecticut СТ 1.410.954 14.108.370 DE .56,617 2,834,650 ..2,891,267 District of Columbia ....522,716 .5,643,409 9. DC .1.997 524.713 .29,013,060 10. Florida .34,656,469 FL .1,314,715 .....630,051 ..3,285,606 ...1,180,384 11. Georgia GΑ 12. Hawaii ΗΙ 13. 14. Idaho ID .92,777 1,040,689 1, 133, 466 Illinois IL 1.786.010 11.195.914 12.981.924 15. Indiana IN 703,844 .5,765,437 \_6,469,281 ...472,036 ...372,230 16. lowa. ΙA ..1,995,273 2,467,309 17. Kansas 461,086 ...833,316 KS 1,477,407 2,367,222 315,440 379,305 \_1,792,847 \_2,746,527 18. Kentucky ΚY 19. Louisiana LA 20. Maine ME 115,935 1,081,604 1,197,539 21. Maryland MD 1.760.148 5.092.945 6.853.093 22. Massachusetts 1,276,293 .14,148,663 .15,424,956 MA 1,220,629 1,461,451 .10,414,358 ...8,321,132 23. Michigan МІ 11.634.987 Minnesota ..9,782,583 MN .....263,733 ...7,409,971 .....888,044 ...8,095,635 25. Mississippi MS .624,311 26. Missouri . .685.664 MO

27.					1,409,971			·
	Montana	MT	Ll	128,572	437,257		565,829	
28.	Nebraska	NE	L		2,038,157		2,690,079	
	Nevada		1	390,983	2,887,272			
					2,001,212			
	New Hampshire	NH	L		1,771,870		2,082,344	
31.	New Jersey	NJ	L	2,917,056	11,405,841		14,322,897	
32.	New Mexico	NM	L	101,364	199,547		300,911	
	New York		NI	1,580,968	23,245			
			N				, , ,	
	North Carolina		L		3,213,373		6, 194, 762	
35.	North Dakota	ND	L	9,085			9,085	
36.	Ohio	OH	1		7,943,388		9,305,653	
	Oklahoma				1,560,077		0 101 507	
	Oregon	O., .	L	286 , 125	496,574		782,699	
39.	Pennsylvania	PA	L	2,345,300	20,940,875		23,286,175	
	Rhode Island		1		4,577,836		4,816,600	
	South Carolina				2,899,726		3,828,312	
	South Dakota		L	30,813	249,629		280,442	
43.	Tennessee	TN	L	1,059,082	10,724,768		11,783,850	
	Texas		Ī		9,855,327		13,731,625	
				, ,				
	Utah		L	,	836,995		1,351,423	
46.	Vermont	VT	L	132,732	1,716,535	ļ	1,849,267	
47.	Virginia	\/Δ	L		7,485,077		9,575,578	
	Washington				2,829,539			
	West Virginia		L		863,957		1,042,903	
50.	Wisconsin	WI	L	473,605	6,942,318	L	7,415,923	
51.	Wyoming	wy	L		17,387		48,573	
	American Samoa		N					
	Guam		N				60	
54.	Puerto Rico	PR	L	1.059.013	1.628.705		2,687,718	
55.	U.S. Virgin Islands	VI	N	712			712	
	Northern Mariana Islands		N					
	Canada		N	5,368			5,368	
58.	Aggregate Other Aliens	OT	XXX	39,877			39,877	
	Subtotal		XXX		231,442,169			
					231,442,109		285,603,335	
90.	Reporting entity contributions for employ							
	plans		XXX					
91.	Dividends or refunds applied to purchas							
	additions and annuities		XXX					
92.	Dividends or refunds applied to shorten	endowment						
	or premium paying period		XXX					
93.	Premium or annuity considerations waiv							
	disability or other contract provisions		XXX	369.830		L	369.830	
94.	Aggregate or other amounts not allocable		XXX					
	Totals (Direct Business)			54,530,996	231,442,169		285,973,165	
96.	Plus Reinsurance Assumed		XXX					
97	Totals (All Business)		XXX	54,530,996	231,442,169		285,973,165	
	Less Reinsurance Ceded			, ,	169,226,876		000,000,000	
				, ,			1	
99.	Totals (All Business) less Reinsurance (	Seaea	XXX	14,370,913	62,215,293		76,586,206	
	DETAILS OF WRITE-INS							
8001.	ZZZ Other Alien		XXX	39.877			39.877	
8002.	ZZZ Other Arren	-	XXX					
						<b>†</b> †		
8003.			XXX			<b>}</b>		
8998.	Summary of remaining write-ins for Line	58 from						
	overflow page		XXX					
8999.	Totals (Lines 58001 through 58003 plus							
-	58998)(Line 58 above)		XXX	39,877			39,877	
9401.	//		XXX	,			,	
						<u> </u>		
9402.			XXX			<b>}</b>		
9403.			XXX			<b> </b>		
9498.	Summary of remaining write-ins for Line	94 from						
	overflow page		XXX				L	
9499.	Totals (Lines 9401 through 9403 plus 94							
	94 above)	/(=0	XXX			[		
Λς4:			////			1	ı	
	Status Counts:				<b>.</b> . –			
	ensed or Chartered - Licensed Insurar	nce carrier o	r domiciled Rl	KG	51 R	<ul> <li>Hegistered - Non-don</li> </ul>	niciled RRGs	
L - Lic	gible - Reporting entities eligible or ap	proved to wr	ite surplus lin	es in the state		- Qualified - Qualified of	accredited reinsurer.	
			-					
E - Eli	waaftaaabaya N-+-II''	ni sagnisin	trie state		b			
E - Eli	one of the above - Not allowed to write	business in						
E - Eli	one of the above - Not allowed to write	Dusiness in						
E - Eli	one of the above - Not allowed to write	DU3111033 111						
E - Eli	ne of the above - Not allowed to write	00011000 111						

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	<b>State of Domicile</b>
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
Invicta Advisors LLC	56-2574604		Delaware
EM Opportunities LLC	None		Delaware
Jefferies Finance LLC	27-0105644		Delaware
Apex Credit Partners LLC	None		Delaware
JFIN Fund III LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware
JFAM GP LLC	None		Delaware
JFAM GP LP	None		Delaware
JFAM Loan Fund, LP	None		Delaware
JFIN Revolver Holdings LLC	None		Delaware
JFIN Co-Issuer Corporation	None		Delaware
JFIN Europe GP, S.a.r.l.	None		Luxembourg
Jefferies Finance Europe, SCSp	None		Luxembourg
Jefferies Finance Business Credit LLC	None		Delaware
JFIN Business Credit Fund I LLC	None		Delaware
JFIN High Yield Investments LLC	None		Delaware
JFIN LC Fund LLC	None		Delaware
JFIN Revolver CLO Holdings LLC	None		Delaware

<sup>\*</sup>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	<b>State of Domicile</b>
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 2015-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-II Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-III Ltd.	None		Cayman Islands
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 LLC	47-1296410		Delaware
MM Rothesay Holdco US LLC	04-1590850		Delaware
MML Investors Services, LLC	04-1590850		Massachusetts

<sup>\*</sup>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
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 98-0654412		United Kingdom
Barings Real Estate Advisers Europe Finance LLP Barings Real Estate Advisers GmbH	98-1194368		United Kingdom Germany
Baring Asset Management Limited	98-0241935		United Kingdom
Barings Global Advisors Limited	98-1012393		United Kingdom 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
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

<sup>\*</sup>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	<b>State of Domicile</b>
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
Baring North America LLC	98-0241935		Massachusetts
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
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
Sweet Tree Holdings 1, LLC	46-3123110		Delaware
Tamiami Citrus, LLC	None		Delaware
Teaktree Acquisition, LLC	None		Delaware
U.S. Buyer Broadcasting, LLC	47-1855920		Delaware
U.S. WIG Holdings, LP	46-1500495		Delaware
U.S. Pharmaceuticals Holdings 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
Barings CLO Investment Partners 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
Benton Street Advisors, Inc.	98-0536233		Cayman Islands

<sup>\*</sup>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
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
Somerset Special Opportunities Management LLC	04-1590850	Delaware
Oppenheimer Acquisition Corp.	84-1149206	Delaware
Oppenheimer Acquisition Corp.  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
Harbour View 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
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

<sup>\*</sup>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 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 <sup>rd</sup> 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
Babson Capital Loan Strategies Fund, L.P.*	37-1506417		Delaware
Barings US High Yield Bond Fund*	None		Ireland
Babson CLO Ltd. 2012-II	None		Cayman Islands
Babson CLO Ltd. 2013-I	None		Cayman Islands
Babson CLO Ltd. 2013-II	98-1128827		Cayman Islands
Babson CLO Ltd. 2014-I	None		Cayman Islands
Babson CLO Ltd. 2014-II	None		Cayman Islands
Babson CLO Ltd. 2014-III	None		Cayman Islands
Babson CLO Ltd. 2015-I	None		Cayman Islands
Babson CLO Ltd. 2015-II	None		Cayman Islands
Babson CLO Ltd. 2016-I	None		Cayman Islands
Babson CLO Ltd. 2016-II	None		Cayman Islands
Barings CLO Ltd. 2017-I	None		Cayman Islands
Babson Euro CLO 2014-I BV	None		Netherlands
Babson Euro CLO 2014-II BV	None		Netherlands
Babson Euro CLO 2015-I BV	None		Netherlands
Babson Euro CLO 2016-I BV	None		Netherlands
Baring Focused EAFE Equity Fund	11-3789446		Delaware
Barings Global Energy Infrastructure Fund I LP	98-1332384		Cayman Islands
Barings Global Private Loan Fund	None		Luxembourg

<sup>\*</sup>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	<b>State of Domicile</b>
Barings Global Real Assets Fund LP	82-3867745	Delaware
Barings Global Special Situations Credit Fund 3	None	Ireland
Barings Middle Market CLO 2017-I Ltd & LLC	None	Cayman Islands
Barings North American Private Loan Fund LP	38-4010344	Delaware
Barings RE Credit Strategies VII LP	98-1332384	Delaware
Baring International Small Cap Equity Fund	26-4142796	Delaware
Barings CLO Investment Partners LP	81-0841854	Delaware
Barings Real Estate European Value Add I SCSp*	None	United Kingdom
Braemar Energy Ventures I, L.P. *	None	Delaware
Barings European Core Property Fund SCSp	None	Luxembourg
Benchmark 2018-B2 Mortgage Trust	38-4059932	New York
Cornerstone Core Mortgage Venture I LP	27-1701622	Delaware
Cornerstone Enhanced Mortgage Fund I LP	45-3751572	Delaware
Cornerstone Global Real Estate LP*	20-8730751	Delaware
Cornerstone High Yield Venture LP	36-4770946	Delaware
Barings/LAZ Parking Fund LP	46-5437441	Delaware
Barings Core Property Fund LP	20-5578089	Delaware
Cornerstone Real Estate Fund VIII LP	27-0547156	Delaware
Cornerstone Real Estate Fund X LP	46-5432619	Delaware
Duchess VII CLO B.V.	None	United Kingdom
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
Sedona TFMP Land LLC	04-1590850	Delaware
Somerset Special Opportunities Fund L.P.*	20-8856877	Delaware

<sup>\*</sup>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
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 46th 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		Massachusetts
Barings Global High Yield Fund	47-3790192		Massachusetts
Baring Greater China Equity Fund	None		Hong Kong
Barings Total Return Bond Fund	47-3734770		Massachusetts
Barings U.S. High Yield Fund	47-3801860		Massachusetts
Great Lakes II LLC*	71-1018134		Delaware
Somerset Special Opportunities Master Fund LP	None		Cayman Islands
Wood Creek Venture Fund LLC	04-1590850		Delaware
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 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/LYON West Gateway, LLC*	26-2399532		Delaware
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

<sup>\*</sup>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

Federal Tax ID NAIC Co Code State of Domicile

PART 1 – ORGANIZATIONAL CHART

	reuciai fax id NAIV	State of Domiche
Johnston Groves LLC	20-4819358	Delaware
Landmark Manchester Holdings LLC	81-5360103	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:	200101111	Detail value
MassMutual Barings Dynamic Allocation Fund	45-3168892	Massachusetts
MassMutual Premier Focused International Fund	02-0754273	Massachusetts
MassMutual Premier Main Street Fund	51-0529328	Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251	Massachusetts
MassMutual Premier Value Fund	04-3277550	Massachusetts
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

<sup>\*</sup>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	<b>State of Domicile</b>
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
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 1000 Dynamic Multifactor ETF	82-2791387		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

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

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

PART 1 – ORGANIZATIONAL CHART

	<u>Federal Tax ID</u>	NAIC Co Code State of D	<u>Oomicile</u>
Oppenheimer Russell 1000 Size Factor ETF	82-2740997	Delaware	
Oppenheimer Russell 1000 Quality Factor ETF	82-2732571	Delaware	
ppenheimer Russell 1000 Yield Factor ETF	82-2768498	Delaware	
Oppenheimer SteelPath MLP & Energy Infrastructure Fund	82-2222426	Delaware	

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

# **SCHEDULE Y**

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											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board.	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
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Group		Company	ID	Federal		(U.S. 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)	*
							Massachusetts Mutual Life Insurance Company			Massachusetts Mutual Life Insurance					
0435	Massachusetts Mut Life Ins Co	65935	. 04-1590850	3848388			(MMLIC)	MA	UDP	Company	Ownership	100.000	MMLIC		1
							,			Massachusetts Mutual Life Insurance					
0435	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	mine baystate Erro ms to	0410	. 06-1041383				CML Mezzanine Investor, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
0000			06-1041383				CML Mezzanine Investor L, LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
0000			. 06-1041383				CML Mezzanine Investor III. LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
			. 06-1041383												
0000							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					İ
0000			04-1590850				MML Mezzanine Investor L, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					İ
0000							MML Special Situations Investor LLC	DE	NI A	Company	Ownership	100.000	MML1C		
							·			Massachusetts Mutual Life Insurance					İ
0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Company	Ownership	100.000	MMLIC		İ
0000			47-5322979				Timberland 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		
			20-5305426					NY					MMLIC		
0000			. 20-5305426				Lyme Adirondack Timber Sales, Inc.		NI A	Timberland Forest Holding LLC	Ownership	100.000			
0000							Lyme Adirondack Timberlands I, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
0000							Lyme Adirondack Timberlands II, LLC	DE	NI A	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 04-1590850				Berkshire Way LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										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	NIA	C.M. Life Insurance Company	Ownership	18.600	MMLIC		
							,			Massachusetts Mutual Life Insurance					
0000			04-1590850				MSP-SC. LLC	DE	NIA	Company	Ownership	100.000	MMLIC		İ
9000							ma 00, EE0			Massachusetts Mutual Life Insurance	owner on p				
0000			27-1435692				Country Club Office Plaza LLC	DE	NIA	Company	Ownership	88.100	MMLIC		İ
			27-1435692					DE					MMLIC		
0000			. 27-1430092				Country Club Office Plaza LLC	UE	NI A	C.M. Life Insurance Company	Ownership	11.900	MMLIC		
										Massachusetts Mutual Life Insurance					İ
0000			. 56-2574604				Invicta Advisors LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					İ
0000							EM Opportunities LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
1										Massachusetts Mutual Life Insurance	Í				1
0000			. 04-1590850				Insurance Road LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Trad Private Equity LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		İ
0000			04-1590850				MassMutual Intellectual Property LLC	DE	NI A	Insurance Road LLC	Ownership	100.000	MMLIC		
							macomataar intorrootaar rioporty 220			Massachusetts Mutual Life Insurance					
0000			27-0105644			1	Jefferies Finance LLC	DE	NIA	Company	Ownership.	50.000	MMLIC		1 1
0000			27-0103044				Gerreries i mance LLC	UL		Massachusetts Mutual Life Insurance	owner sirrp		. MIMILTO		
0000							Non-Material Mantes on Londing 110	DE	NII A		0	100 000	IIII 10		1
0000							MassMutual Mortgage Lending LLC		NI A	Company	Ownership	100.000	MMLIC		
0000		-	-				Apex Credit Partners LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Fund III LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000		-	-				JFIN Asset Management LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFAM GP LLC	DE	NI A	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		
0000			.				JFAM GP LP	DE	NI A	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		ll
0000							JFAM Loan Fund, LP	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		<u>                                     </u>
0000		l	l				JFIN Revolver Holdings LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000					-3		JFIN Co-Issuer Corporation	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000			1				JFIN Europe GP. S.a.r.I.	_LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000			1				Jefferies Finance Europe, SCSp	_LUX	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
DOOU		. 1			1	I	TOUTION TO I INIGINE DUSTRIESS CIEUT LLC	1 UĽ	L	UCITO 100 1 11101100 LLO	LOMING SHIP				4

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000	aroup Name	Oouc	IVallibei	ПООВ	Olix	international)	JFIN Business Credit Fund I LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC	(1/14)	+
0000							JFIN High Yield Investments LLC	DE	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC		
0000							JFIN LC Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO Holdings LLC	DE	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	NIA	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 CYM	NIA	Jefferies Finance LLC Jefferies Finance LLC	Ownership	100.000	MMLIC		·
0000							JFIN CLO 2015 Ltd	CYM	NIA	Apex Credit Partners LLC	Ownership	56.000	MMLIC		
0000							Apex Credit CLO 2015-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	33.000	MMLIC		
0000							Apex Credit CLO 2015-II Ltd	CYM	NIA	Apex Credit Partners LLC	Ownership.	53.000	MMLIC		
0000							JFIN Revolver CLO 2014 Ltd.	CYM	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 2015-II 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	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Apex Credit CLO 2016 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Apex Credit CLO 2017 Ltd.	CYM CYM.	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							Apex credit old 2017-11 Ltd.	UTWL	NIA	Massachusetts Mutual Life Insurance	. Towner Strip	100.000	MINILI C		
0000			04-1590850				MassMutual Retirement Services, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			01 1000000				massimutaat fictifoliiste oof vioos, EEs			Massachusetts Mutual Life Insurance	owner emp				
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		
								25		Massachusetts Mutual Life Insurance		400.000			
0000							MML Investment Advisers, LLC	DE	NI A	Company Massachusetts Mutual Life Insurance	Ownership	100.000	MMLIC		
0000			04-1590850				MML Mezzanine Investor, LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
0000			04-1090600				wink mezzaittie tilvestoi, kko	UE	NIA	Massachusetts Mutual Life Insurance	Owner Sirrp	100.000	MINILIO		
0000			46-3238013				MML Strategic Distributors, LLC	DE	NI A	Company	Ownership.	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			06-1563535	2881445			The MassMutual Trust Company, FSB	CT	NI A	Company	Ownership	100.000	MMLIC	Y	
										Massachusetts Mutual Life Insurance					
0000			26-0073611				MassMutual Asset Finance LLC	DE	NI A	Company	Ownership	99.600			
0000			26-0073611				MassMutual Asset Finance LLC	DE	NI A	C.M. Life Insurance Company	Ownership	0.400	. MMLIC		4
0000			27-1379258				MMAF Equipment Finance LLC 2009-A	DE	NI A	MassMutual Asset Finance LLC	. Ownership	100.000	MMLIC		
0000			45-2589019				MMAF Equipment Finance LLC 2011-A	DE	NI A	MassMutual Asset Finance LLC Massachusetts Mutual Life Insurance	. Ownership	100.000	MMLIC		
0000			04-1590850				LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
0000			04-1090600				LLU	UE	NI A	Massachusetts Mutual Life Insurance	Owner Strip		MINILIO		
0000			04-1590850				MML Private Equity Fund Investor LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			04-1590850				MM Private Equity Intercontinental LLC	DE	NIA	MML Private Equity Fund Investor LLC	Ownership.	100.000	MMLIC		
							, , , , , , , , , , , , , , , , , , ,			Massachusetts Mutual Life Insurance	,				
0000			45-2738137				Pioneers Gate LLC	DE	NIA	Company	Ownership	100.000			
		1			1					Massachusetts Mutual Life Insurance					
0000			04-2854319	2392316			MassMutual Holding LLC	DE	NI A	Company	Ownership	100.000	MMLIC	Y	
0000			06-1597528				MassMutual Assignment Company	NC	NI A	MassMutual Holding LLC	Ownership	100.000			

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		_		_			_	-			Type	If			1
											of Control	Control			1
											(Ownership,	is		ls an	1
						N			D 1 11			_			1
						Name of Securities			Relation-		Board,	Owner-		SCA	1
						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.S. 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)	*
0000			37-1732913				Fern Street LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			62-0951563	1160004			First Mercantile Trust Company	TN	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			46-2252944				Haven Life Insurance Agency, LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Capital Partners LLC	DE	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			47-1296410				MassMutual Ventures LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			04-1590850				MM Rothesay Holdco US LLC	DE	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		l
0000			47-1466022				LifeScore Labs, LLC	MA	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		ll
0000			04-1590850				MML Investors Services, LLC	MA	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		l
0000			04-1590850				MML Insurance Agency, LLC	MA	NI A	MML Investors Services, LLC	Ownership	100.000	MMLIC		
0000			41-2011634				MMLISI Financial Alliances, LLC	DE	NI A	MML Investors Services, LLC	Ownership	100.000	MMLIC		
0000			45-4000072				MM Asset Management Holding LLC	DE	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		
0000			51-0504477				Barings LLC	DE	NI A	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC		
							Baring Asset Management (Asia) Holdings				·				1
0000			98-0524271				Limited	HKG	NI A	Barings LLC	Ownership	100.000	MMLIC		
							Baring International Fund Managers (Bermuda)			Baring Asset Management (Asia) Holdings	·				1
0000			98-0457465				Limited	BMU	NI A	Limited	Ownership	100.000	MMLIC		
										Baring Asset Management (Asia) Holdings	·				1
0000			98-0457463				Baring Asset Management (Asia) Limited	HKG	NI A	Limited	Ownership	100.000	MMLIC		
0000							Baring Asset Management Korea Limited	KOR	NI A	Baring Asset Management (Asia) Limited	Ownership	100.000	. MMLIC		
										Baring Asset Management (Asia) Holdings	· ·				1
0000			98-0457707				Baring SICE (Taiwan) Limited	TWN	NI A	Limited	Ownership	100.000	. MMLIC		
							-			Baring Asset Management (Asia) Holdings	·				1
0000			98-0236449				Barings Japan Limited	JPN	NI A	Limited	Ownership	100.000	. MMLIC		
							Baring Asset Management (Australia) Pty			Baring Asset Management (Asia) Holdings					1
0000			98-0457456				Limited	AUS	NI A	Limited	Ownership	100.000	MMLIC		
							Barings Investment Advisors (Hong Kong)			Baring Asset Management (Asia) Holdings					1
0000							Limited	HKG	NI A	Limited	Ownership	100.000	MMLIC		
										Baring Asset Management (Asia) Holdings					1
0000							Barings Australia Holding Company Pty Ltd	AUS	NI A	Limited	Ownership	100.000	MMLIC		
0000			98-0457456				Barings Australia Pty Ltd	AUS	NIA	Baring Australia Holding Company Pty Ltd	Ownership	100.000	MMLIC		
0000			80-0875475				Barings Finance LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000							BCF Europe Funding Limited	IRL	NI A	Barings Finance LLC	Ownership	100.000	MMLIC		
0000							BCF Senior Funding   LLC	DE	NI A	Barings Finance LLC	Ownership	100.000	. MMLIC		
0000			04-3238351				Barings Securities LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000			98-0437588				Barings Guernsey Limited	GGY	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000							Barings Europe Limited	GBR	NI A	Barings Guernsey Limited	Ownership	100.000	MMLIC		
0000							Barings Real Estate UK Holdings Limited	DE	NI A	Barings Europe Limited	Ownership	100.000	MMLIC		
0000							BREAE AIFM LLP	GBR	NI A	Barings Real Estate UK Holdings Limited	Ownership	100.000	- MMLIC	[	
							Barings Real Estate Advisers (Continental				L				
0000			98-0654401				Europe) Limited	GBR	NI A	Barings Real Estate UK Holdings Limited	Ownership	100.000	- MMLIC		
0000			98-0654388				Barings Real Estate Advisers Europe LLP	GBR	NI A	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
0000			00 005 ****				Barings Real Estate Advisers Europe Finance	000	NII *	B . B   E   1	l	400 000	IIII 10		
0000			98-0654412				LLP	GBR	NI A	Barings Real Estate UK Holdings Limited	Ownership	100.000	. MMLIC		
0000		l	98-1194368				Barings Real Estate Advisers GmbH	DEU	NI A	Barings Real Estate UK Holdings Limited	Ownership	100.000	- MMLIC		
0000			98-0241935				Baring Asset Management Limited	GBR	NI A	MassMutual Holdings (Bermuda) Limited	Ownership	100.000	. MMLIC		
0000		l	98-1012393				Barings Global Advisors Limited BCGSS 2 GP LLP	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	- MMLIC	[	
0000								GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			00.0457000				Barings European Direct Lending 1 GP LLP	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	- MMLIC	[	
0000			98-0457328				Baring International Investment Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			00 0457507				Baring International Investment Management	CDD	NII A	Daving Assat Management Limited	O-marahi-	100 000	IMILIO		
0000		l	98-0457587				Holdings	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC	[	
0000		]	00 0457570		]		Desire Assat Management IIV Helding 12 24	ODD	ALL A	Baring International Investment Management	0	100,000	INN 10		1 1
0000		l	98-0457576				Baring Asset Management UK Holdings Limited	GBR	NIA	Holdings	Ownership	100.000	MMLIC	[	<u> </u>

## 13.5

## **SCHEDULE Y**

				FA	MI IA	A - DE I AI	L OF INSURANC	, C T	JOLD	ING COMPANT	SISIEM				
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		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)	*
	·								•	Baring Asset Management UK Holdings Limited					
0000			98-0465031				Baring Asset Management GmbH	DEU	NI A		Ownership	100.000	. MMLIC		
			00 0504070				Baring International Fund Managers (Ireland)			Baring Asset Management UK Holdings Limited		400.000			
0000			98-0524272				Limited	IRL	NI A	Baring Asset Management UK Holdings Limited	Ownership	100.000	MMLIC		
0000							Baring Asset Management Switzerland Sàrl	CHE	NIA	baring Asset management on nordings Limited	Ownership	100.000	MMLIC		
0000							Dailing Asset Wanagement Switzerrand Sair		NIA	Baring Asset Management UK Holdings Limited	I owner sirrp	100.000	. MINILIO		
0000			98-0497550				Baring France SAS	FRA	NI A	but my nooce management or notaringo Emittee	Ownership	100.000	MMLIC		
0000			98-0457586				Baring Fund Managers Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			98-0457574				Baring Pension Trustees Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			98-0457578				Baring Investment Services Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	. MMLIC		
0000							Barings GPC GP S.à. r.I	LUX	NI A	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 GBR	NI A NI A	Baring Asset Management Limited Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000							Almack Mezzanine Fund II Limited	GBR		Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			98-0432153				Barings (U.K.) Limited	GBR	NIA	Barings Guernsey Limited	Ownership	100.000	MMLIC		
0000			00 0102100				Barings Multifamily Capital Holdings LLC	DE	NI A	Barings LLC	Ownership.	100.000	MMLIC		
0000							Barings Multifamily Capital LLC	MI	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000							Barings Multifamily Capital Corporation	DE CA	NI A	Barings LLC	Ownership	100.000	MMLIC		
0000			04-3238351	3456895			Barings Real Estate Advisers Inc.	CA	NI A	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			98-0241935	2363071			Baring North America LLC	MA	NI A	MassMutual Baring Holding LLC	Ownership	100.000	. MMLIC		
0000							MassMutual Holdings (Bermuda) Limited	BMU	NI A	MassMutual Baring Holding LLC	Ownership	100.000	. MMLIC		
0000							Agspring Holdco, LLC	DE	NIA	Company	Ownership	15.400	MMLIC		
0000							Agspiring nordeo, EEO	UL	NI /	Massachusetts Mutual Life Insurance	owner strip		minL10		
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NI A	Company	Ownership/Influence	30.000	MMLIC		
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NI A	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			81-4258759				CRA Aircraft Holding LLC	DE	NI A	Company	Ownership/Influence	40.000	MMLIC		
0000			81-4258759				CRA Aircraft Holding LLC	DE	NI A	Barings LLC	Influence		. MMLIC		
0000			46-2344300					DE	NIA	Massachusetts Mutual Life Insurance	Ownership	40,000	MMLIC		
0000			46-2344300				Intermodal Holdings II LLCIntermodal Holdings II LLC	DE	NIA	CompanyBarings LLC	Uwnersnip	18.000	MMLIC		
0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	18.300	MMLIC		
0000			-1 .0000003				milestone Acquisition notuning, LLC.	UL	NI 7	Massachusetts Mutual Life Insurance	omici sitip/ titi tuetice	10.000	L10		
0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NI A	Company	Ownership	0.000	MMLIC		
0000			47-3055009				Milestone Acquisition Holding, LLC.	DE	NI A	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			46-5460309				Red Lake Ventures, LLC	DE	NI A	Company	Ownership/Influence	15.800	MMLIC		ļ
0000			46-5460309				Red Lake Ventures, LLC	DE	NI A	Barings LLC	Influence	·	MMLIC		
0000			81-4065378		1		Designation I & Willeddings II O	ОТ	NII A	Massachusetts Mutual Life Insurance	0	66.300	MMLIC		
0000			81-4065378 81-4065378				Remington L & W Holdings LLC	CT	NIA NIA	Company	Ownership/Influence		MMLIC		
0000		-	01-4000076				namington L & W notatings LLC		INI A	Massachusetts Mutual Life Insurance	. IIII Tuerice	· <del> </del>	NIMIL IV		
0000			46-3123110		1		Sweet Tree Holdings 1, LLC	DE	NI A	Company	Ownership/Influence	25.600	MMLIC		
0000			46-3123110				Sweet Tree Holdings 1, LLC	DE	NIA	Barings LLC	Influence		MMLIC		
							J. J. J. J. J. J. J. J. J. J. J. J. J. J			Massachusetts Mutual Life Insurance					
0000							Tamiami Citurus, LLC	DE	NI A	Company	Ownership	15.700	MMLIC		
0000							Teaktree Acquisition, LLC	DE	NI A	MassMutual Holding LLC	Ownership/Influence	14.700	MMLIC		
0000							Teaktree Acquisition, LLC	DE	NIA	Barings LLC	Influence		_ MMLIC		l

U.S. Buyer Broadsast Ing. LLC	DING COMPANY					
NAIC Company   Code   Company   Code   Company   Code   Company   Code   Company   Code   Company   Code	11	12	13	14	15	16
NAIC		Type	lf			
NAIC   Company   Code   Names of   Publicity Traded   (U.S. or   Parent, Subsidiaries   Local   Reporting   Code   Company   Code   Number   RSSD   CIK   International)   Code   Parent, Subsidiaries   Local   Reporting   Code   Reporting   Code   Reporting   Code   Code   Reporting   Code   Code   Reporting   Code		of Control	Control			
NAIC Company   NAIC Company   Did   Federal   Publicity Traded (U.S. or International)   Ordifilates   Code   Code   Number   RSSD   CIK   International)   Ordifilates   Code   Reporting   To   Code   City   Ci		(Ownership,	is		ls an	
Corporation						
Company Code   Company Code   Company Code   Code	-	Board,	Owner-		SCA	
Code   Group Name   Code   Number   RSSD   CIK   International   CIS or Artificiates   Local   Feporting   Code   Group Name   Code   Number   RSSD   CIK   International   CIS or Artificiates   Local   Feporting   CIS   CIS   CIS   International   CIS   CI		Management,	ship		Filing	
Code   Group Name   Code   Number   RSSD   CIK   International   Or Affiliates   tion   Entity		Attorney-in-Fact,	Provide		Re-	
Code   Group Name   Code   Number   RSSD   CIK   International   Or Affiliates   tion   Entity	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
U.S. Buyer Broadcast Ing. LLC	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
U.S. Buyer Broadest Ing. LLC   DE   MA   DE   MA   DE   DE   MA   DE   DE   DE   DE   DE   DE   DE   D	Massachusetts Mutual Life Insurance	Guiory	iago	Entity (100)/11 010011(0)	(1/14)	<del></del> '
1000		Ownership/Influence	12.700	MMLIC		1
December   December						
0000			11.700	MMLIC		
		nfluence		MMLIC		
D000	Massachusetts Mutual Life Insurance					1
D000		Management	32.600	MMLIC		
	Massachusetts Mutual Life Insurance					1
		Ownership/Influence	32.600	MMLIC		
Solar Acquisition Holding, LLC   EE   NA	Barings LLCI	Influence		MMLIC		1
	Massachusetts Mutual Life Insurance			1	1	1
	Company	Ownership/Influence	39.200	MMLIC		.l'
		Management		MMLIC		1
	Massachusetts Mutual Life Insurance					
WS Acquisit in Molding, LLC   DE   NIA		Ownership/Influence	100.000	MMLIC		1
VIS Acquisit ion Holding, LLC   DE   NIA   E   Baring Asset-Based Income Fund   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   NIA   E   DE   DE   NIA   E   DE   DE   NIA   E   DE   DE   NIA   E   DE   DE   DE   DE   NIA   E   DE   DE   DE   DE   DE   DE   DE			33.300	MMLIC		
Baring Assel-Based Income Fund (US) 6P, LLC, DE, NIA, EBASON Capital Floating Rate Income Fund (US) 6P, LLC, DE, NIA, EBASON Capital Floating Rate Income Fund (US) 6P, LLC, DE, NIA, EBASON Global Loan Feeder Management, LLC, DE, NIA, EBASON Global Loan Feeder Management, LLC, DE, NIA, EBAING, DIVENSEMENT Partners 6P, LLC, DE, NIA, EBAING, DIVENSEMENT Partners 6P, LLC, DE, NIA, EBAING, DIVENSEMENT Partners 6P, LLC, DE, NIA, EBAING, DIVENSEMENT PARTNERS 6P, LLC, DE, NIA, EBAING, DIVENSEMENT, AND COMMENTAL COMME		Management		MMLIC		
December   December			100 000	MMLIC		
Management LLC	Barings LLC	Jwnersnip	100.000	MML10		'
Babson Global Loan Feeder Management, LLC   DE   NIA   E						1
Bar ings CLO Investment Partners GP, LLC   DE			100.000	MMLIC		
Barings Global Energy Infrastructure			100.000	MMLIC		
Decoration   Dec				MMLIC		
Advisors, LLC	Barings LLC0	Ownership	100.000	MMLIC		
Bar ings North American Private Loan Fund						1
Bar ings North American Private Loan Fund	Barings LLC0	Ownership	100.000	MMLIC		.l'
DODG	, and the second	·				1
Barings Global Real Assets Fund GP, LLC   DE   NIA   E	Barings LLC 0	Ownership.	100.000	MMLIC		1
Barings TERO Management LLC   DE   NIA   E			100.000	MMLIC		
Description   Description			100.000	MMLIC		
0000				MMLIC		
Decoration   Dec				MMLIC		
D000				MMLIC		
December   December				MMLIC		
Decoration   Dec			100.000	MMLIC		
Mezzo   II   LC   DE   NIA   E			100.000			
Decomposition   Decompositio			98.400	MMLIC		
Decomposition   Decompositio			99.300	MMLIC		·
DE			99.300	MMLIC		·
Somerset Special Opportunities Management LLC				MMLIC		
.0000         .04-1590850	Barings LLC 0	)wnership	100.000	MMLIC		
.0000         84-1149206         2897101         Oppenheimer Acquisition Corp.         DE.         NIA.         NIA.         NIA.         NIA.         NIA.         NIA.         NIA.         NIA.         CO.         NIA.<				1	1	1
.0000         84-1149206         2897101         Oppenheimer Acquisition Corp.         DE.         NIA.         NIA.         NIA.         NIA.         NIA.         NIA.         NIA.         NIA.         CO.         NIA.<	Barings LLC0	Ownership	100.000	MMLIC		
.0000         13-2527171         2679183         OppenheimerFunds, Inc.         CO.         NIA         C           .0000         13-2953455         OppenheimerFunds Distributor, Inc.         NY.         NIA         C           .0000         84-1106295         Oppenheimer Real Asset Management, Inc.         NY.         NIA         C           .0000         13-4160541         3458125         OFI Global Institutional, Inc.         NY.         NIA         C           .0000         22-2697140         HarbourView Asset Management Corporation         NY.         NIA         C           .0000         0         0C Private Capital, LLC         DE         NIA         C           .0000         0         0FI Global Trust Company         NY.         NIA         C           .0000         0         0FI International, Ltd.         GBR         NIA         C			96.900	MMLIC		
.0000         13-2953455         OppenheimerFunds Distributor, Inc.         NV.         NIA.         C           .0000         84-1106295         Oppenheimer Real Asset Management, Inc.         DE.         NIA.         C           .0000         13-4160541         3458125         OFI Global Institutional, Inc.         NY.         NIA.         C           .0000         22-2697140         HarbourView Asset Management Corporation         NY.         NIA.         C           .0000         0         0C Private Capital, LLC         DE.         NIA.         C           .0000         0         13-3459790         2914875         OFI Global Trust Company         NY.         NIA.         C           .0000         0         0FI International, Ltd.         GBR         NIA.         C			100.000	MMLIC		
.0000         84-1106295         Oppenheimer Real Asset Management, Inc.         DE.         NIA.         C           .0000         13-4160541         3458125         OFI Global Institutional, Inc.         NV.         NIA.         C           .0000         4         22-2697140         HarbourView Asset Management Corporation         NV.         NIA.         C           .0000         0         0C Private Capital, LLC         DE.         NIA.         C           .0000         0         13-3459790         2914875         OFI Global Trust Company         .NV.         NIA.         C           .0000         0         0FI International, Ltd.         GBR         NIA.         C			100.000	MMLIC		
.0000     13-4160541     3458125     OFI Global Institutional, Inc.     NV.     NIA     C       .0000     22-2697140     HarbourView Asset Management Corporation     .NV.     .NIA     C       .0000     0C Private Capital, LLC     DE     .NIA     C       .0000     0FI Global Institutional, Inc.     .NV.     .NIA     C       .0000     0F Global Institutional, Inc.     .NV.     .NIA     C       .0000     0FI Global Institutional, Inc.     .NV.     .NIA     C       .0000     0FI Global Institutional, Inc.     .NV.     .NIA     C       .0000     0FI International, Ltd.     .GSR     .NIA     C				MMLIC		
.0000         22-2697140         HarbourView Asset Management Corporation         .NV.         .NIA.         C           .0000         0C Private Capital, LLC         DE.         .NIA.         C           .0000         0FI Global Trust Company         .NV.         .NIA.         C           .0000         0FI International, Ltd.         .GBR.         .NIA.         C				MMLIC		1
.0000			100.000	MMLIC		1
				MMLIC		
			51.000			·
			100.000	MMLIC		ł
			100.000	MMLIC		
.0000			100.000	MMLIC		
			100.000	MMLIC		
.0000	OFI Institutional Asset Management, Inc 0	Ownership		MMLIC		
	OppenheimerFunds, Inc. 0	Ownership	100.000	MMLIC		l
				MML IC		

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		_		_				-			Type	If			
											of Control	Control			
											(Ownership,	is		ls an	
						Name of Constitution			Dalatian						
						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	'					·	OFI Advisors , LLC	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC		1
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	NIA	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	CT DE	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC		
0000			90-0874510				Settlement Agent, LLC	DE	NIA	Tremont GP	Ownership	100.000	MMLIC		
0000			. 30-00/43/0				Tremont (Bermuda) Limited	BMU	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC		
0000							Tremont (Dermada) Emirted	DWO		Massachusetts Mutual Life Insurance	- Owner strip	100.000	mmL10		
0000			04-3313782				MassMutual International LLC	DE	NIA	Company	Ownership	100.000	MMLIC	v	
0000			04-00 10/02				MassMutual Asia Limited	HKG	IA	MassMutual International LLC	Ownership	100.000	MMLIC		1
0000									NIA				MMLIC		
							MassMutual Asia Investors Ltd.	HKG		MassMutual Asia Limited	Ownership	100.000			
0000							MassMutual Guardian Limited	HKG		MassMutual Asia Limited	Ownership	100.000	MMLIC		
0000							MassMutual Insurance Consultants Limited	HKG		MassMutual Asia Limited	Ownership	100.000	MMLIC		
0000							MassMutual Services Limited	HKG		MassMutual Asia Limited	Ownership	100.000			
0000							MassMutual Trustees Limited	HKG		MassMutual Asia Limited	Ownership	80.000	MMLIC		
0000			98-0610331				Protective Capital (International) Limited	HKG		MassMutual Asia Limited	Ownership	100.000	MMLIC		
0000			98-1033127				MassMutual Internacional (Chile) SpA	CHL	NI A	MassMutual International LLC	Ownership	100.000	MMLIC		
0000							MassMutual Life Insurance Company	JPN	I A	MassMutual International LLC	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-2443240				MML Management Corporation	MA	NI A	Company	Ownership	100.000	MMLIC	Y	
0000			. 04-3548444				MassMutual International Holding MSC, Inc	MA	NI A	MML Management Corporation	Ownership	100.000	MMLIC		
0000			04-3341767				MassMutual Holding MSC, Inc.	MA	NI A	MML Management Corporation	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				MML Mezzanine Investor II, LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			. 04-1590850				MML Mezzanine Investor III, LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			27-3576835				MassMutual External Benefits Group LLC	DE	NI A	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	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			82-2432216	.			300 South Tryon Hotel LLC	DE	NI A	Company	Ownership	100.000	MMLIC		1
									1	Massachusetts Mutual Life Insurance					
0000			04-1590850				300 South Tryon LLC	DE	NI A	Company	Ownership	100.000	MMLIC		1
										Massachusetts Mutual Life Insurance	1				
0000			20-3887968				54 West Capital LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
							·			Massachusetts Mutual Life Insurance					
0000							Almack Mezzanine Fund   LP	GBR	NI A	Company	Ownership/Influence	41.400	MMLIC		1
0000							Almack Mezzanine Fund   LP	GBR	NI A	C.M. Life Insurance Company	Ownership	4.600	MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NI A	Company	Ownership/Influence	72.900	MMLIC		
							9		1	Massachusetts Mutual Life Insurance					
0000							Almack Mezzanine Fund III LP	GBR	NI A	Company	Ownership/Influence	34.200	MMLIC		1
0000							Almack Mezzanine Fund III LP	GBR	NI A	C.M. Life Insurance Company	Ownership.	3.800	MMLIC		
0000							Almack Mezzanine Fund III LP	GBR	NI A	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	l	<u> </u>
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	Barings LLC	Management		MMLIC		
			1				Barings Emerging Markets Corporate Bond Fund			Massachusetts Mutual Life Insurance	3		-		
0000							J	IRL	NI A	Company	Ownership/Influence	95.900	MMLIC		1
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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent. Subsidiaries	Loca-		Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
	O No			RSSD	Oll		Or Affiliates		Reporting						
Code	Group Name	Code	Number	RSSD	CIK	International)		tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	
0000							Barings Emerging Markets Corporate Bond Fund	IRI	NIA	Barings LLC	Managamant		MMLIC		
0000							Barings Global Special Situations Credit Fund	InL	NI A	Massachusetts Mutual Life Insurance	Management		. MMLIC		
0000							1	IRL	NIA	Company	Ownership/Influence	96.100	MMLIC		
0000							Barings Global Special Situations Credit Fund	INL	NI A	Company	. Owner Sirrp/ IIII ruence	30. 100	LIC		
0000							1	IRL	NIA	Barings LLC	Management		MMLIC		
0000							Babson Capital Global Special Situation		NI //	Massachusetts Mutual Life Insurance	management		I MINILIO		
0000			98-1206017				Credit Fund 2	DE	NIA	Company	Ownership/Influence	20.600	MMLIC		
			30 1200017				Babson Capital Global Special Situation			Company	- Owner strip/ Titl rucitee	20.000	MINETO		
0000			98-1206017				Credit Fund 2	DE	NIA	C.M. Life Insurance Company	Ownership	1.300	MMLIC		
			30 1200017				Babson Capital Global Special Situation	DL		O.M. Erro madrance company	Owner Sirip.		LIO		
0000			98-1206017				Credit Fund 2	DE	NIA	Barings LLC	Management		MMLIC		
			00 1200017				order rund 2			Massachusetts Mutual Life Insurance	managomorit		inime 10		
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NIA	Company	Ownership/Influence	78.900	MMLIC		
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NI A	C.M. Life Insurance Company	Ownership.	3.800	MMLIC		
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P.	DE	NI A	Barings LLC	Management.		MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Barings US High Yield Bond Fund	IRL	NI A	Company	Ownership/Influence	49.100	MMLIC		
0000							Barings US High Yield Bond Fund	IRL	NI A	C.M. Life Insurance Company	Ownership	0.000	MMLIC		
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			98-1128827				Babson CLO Ltd. 2013-II	CYM	NI A	Barings LLC	Influence		MMLIC		44
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		5
0000							Babson CLO Ltd. 2014-III	CYM	NI A	Barings LLC	Influence		MMLIC		
0000							Babson CLO Ltd. 2015-I	CYM	NI A	Barings LLC	Influence		MMLIC		6
0000							Babson CLO Ltd. 2015-II	CYM	NI A	Barings LLC	Influence		MMLIC		7
0000							Babson CLO Ltd. 2016-I	CYM	NI A	Barings LLC	Influence		MMLIC		
0000							Babson CLO Ltd. 2016-II	CYM	NI A	Barings LLC	Influence		MMLIC		
0000							Barings CLO Ltd. 2017-I	CYM	NI A	Barings LLC	Influence		MMLIC		
0000							Babson Euro CLO 2014-I BV	NLD	NI A	Barings LLC	Influence	·····	MMLIC		
0000							Babson Euro CLO 2014-II BV	NLD	NI A	Barings LLC	Influence		MMLIC		
0000							Babson Euro CLO 2015-I BV	NLD	NI A	Barings LLC	Influence	·····	MMLIC		
0000							Babson Euro CLO 2016-I BV	NLD	NI A	Barings LLC	Influence		MMLIC		·
								D=		Massachusetts Mutual Life Insurance		00			
0000			81-0841854				Barings CLO Investment Partners LP	DE	NIA	Company	Ownership/Influence	99.500	MMLIC		·
0000			81-0841854				Barings CLO Investment Partners LP	DE	NI A	Barings LLC	Management		MMLIC		·
				]			Barings Real Estate European Value Add I SCSp			Massachusetts Mutual Life Insurance		00.005			
0000								GBR	NI A	Company	Ownership/Influence	90.000	MMLIC		·
							Barings Real Estate European Value Add I SCSp								
0000								GBR	NI A	C.M. Life Insurance Company	Ownership	10.000	. MMLIC		
							Barings Real Estate European Value Add I SCSp								
0000								GBR	NI A	Barings LLC	Management		MMLIC		
0000			11 0700440				Daving Facused FAFF Facility Found	DE	MILA	Massachusetts Mutual Life Insurance	O	40.700	IMILIC		
0000			11-3789446 11-3789446				Baring Focused EAFE Equity Fund	DE	NIA	Company	Ownership/Influence	49.700	MMLIC		
0000			11-3/89446				Baring Focused EAFE Equity Fund	DE	NI A	Baring Asset Management Limited	Management		MMLIC		
0000			98-1332384				Barings Global Energy Infrastructure Fund I LP	CVH	MILA	Massachusetts Mutual Life Insurance	Ownership/Influence	96.800	MMLIC		
0000			90-1332384					CYM	NI A	Company		90.800	. NIMLIU		
0000			00 1000004				Barings Global Energy Infrastructure Fund I	CYM	NIA	Daving Asset Management Limited	Management		MMLIC		
0000			98-1332384				LF	XIML	NI A	Baring Asset Management Limited Massachusetts Mutual Life Insurance	management		NIMETO		
0000							Barings Global Private Loan Fund	LUX	NIA		Ownership /Influence	15.700	MMLIC		
0000							Barings Global Private Loan Fund	LUX	NIA	Company	Ownership/Influence	13./00	MMLIC		
DOOR							Dailings Global Filvate Loan Fund	LUÅ	A IVI	Dai Higs LLC	management		_   NINIL I ∪		-l

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NIAIO					Names of		- 1-						
_		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			82-3867745				Barings Global Real Assets Fund LP	DE	NI A	Company	Ownership/Influence	55.000	MMLIC		
0000			82-3867745				Barings Global Real Assets Fund LP	DE	NI A	C.M. Life Insurance Company	Ownership	15.000	MMLIC		
0000			82-3867745				Barings Global Real Assets Fund LP	DE	NI A	Barings LLC	Management		_ MMLIC		
							Barings Global Special Situations Credit Fund			Massachusetts Mutual Life Insurance					
0000							3	IRL	NI A	Company	Ownership/Influence	52.100	MMLIC		
							Barings Global Special Situations Credit Fund								
0000							3	IRL	NI A	Barings LLC	Management		MMLIC		1
0000							Barings Middle Market CLO 2017-I Ltd & LLC	CYM	NIA	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			38-4010344				Barings North American Private Loan Fund LP	DE	NIA	Company	Ownership/Influence	49.300	MMLIC		
0000		1	38-4010344				Barings North American Private Loan Fund LP	DE	NIA	Baring Asset Management Limited	Management.		MMLIC		[
							Indiana in the country of the			Massachusetts Mutual Life Insurance					
0000			98-1332384		I		Barings RE Credit Strategies VII LP	DE	NI A	Company	Ownership/Influence	33.100	MMLIC		
0000			98-1332384				Barings RE Credit Strategies VII LP	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
0000			. 30-1002004				Dailings in Credit Strategres vii Li	UL		Massachusetts Mutual Life Insurance	management		- MINIETO		
0000			26-4142796				Baring International Small Cap Equity Fund	DE	NI A	Company	Ownership/Influence	58.000	MMLIC		
.0000			26-4142796				Baring International Small Cap Equity Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC		
			20-4142790				baring international small cap Equity Fund	UE	NI A	Massachusetts Mutual Life Insurance	management		. MINILIO		
0000							D F Vt     D	DE	NIA		0		MMLIC		
0000							Braemar Energy Ventures I, L.P.			Company	Ownership/Influence		MMLIC		
							Braemar Energy Ventures I, L.P.	DE	NIA		Ownership	1.300			
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	21.800	MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NI A	C.M. Life Insurance Company	Ownership	1.400	MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
0000			38-4059932				Benchmark 2018-B2 Mortgage Trust	NY	NI A	Barings LLC	Influence		. MMLIC		
0000			27-1701622				Cornerstone Core Mortgage Venture   LP Cornerstone Core Mortgage Venture   LP	DE	NI A	MassMutual Holding LLC	Ownership/Influence	50.000			
0000			27-1701622				Cornerstone Core Mortgage Venture I LP	DE	NI A	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		
										Massachusetts Mutual Life Insurance					
0000			20-8730751				Cornerstone Global Real Estate LP	DE	NI A	Company	Ownership/Influence	82.300	MMLIC		
0000			20-8730751				Cornerstone Global Real Estate LP	DE	NI A	C.M. Life Insurance Company	Ownership	7.600	MMLIC		
0000			20-8730751				Cornerstone Global Real Estate LP	DE	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance	-				
0000			36-4770946				Cornerstone High Yield Venture LP	DE	NI A	Company	Ownership/Influence	49.700	MMLIC		
0000			36-4770946				Cornerstone High Yield Venture LP	DE	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
0000			20-5578089				Barings Core Property Fund LP	DE	NI A	MassMutual Holding LLC	Ownership/Influence	11.600	MMLIC		
0000		1	20-5578089				Barings Core Property Fund LP	DE	NI A	Barings Real Estate Advisers LLC	Management		MMLIC		
							Salings sold froporty rand in			Massachusetts Mutual Life Insurance	- Indiagonori C				
0000			46-5432619		I		Cornerstone Real Estate Fund X LP	DE	NIA	Company	Ownership/Influence	24.900	MMLIC		
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	2.800	MMLIC		1
.0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Barings Real Estate Advisers LLC	Management.	2.000	MMLIC		
			51 02040				OUTHOR STORE HEAT ESTATE FULLY A EL	UL	NI //	Massachusetts Mutual Life Insurance	managonent		IIIIIL   V		
			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Company	Ownership/Influence	99.900	MMLIC		
0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Barings Real Estate Advisers LLC	Management	008.86	MMLIC		1
.0000			144/640-04	4007502				UE				· <del> </del>	MMLIC		
المالك				400/502			Duchess VII CLO B.V.	BH	NI A	Barings LLC	Influence		- MMLIU		
0000			00 0007000		I		E Wiss Land Venture LLC	חר	NI A	Massachusetts Mutual Life Insurance	0h :	100 000	188 10		
			20-3887968				E-Wise Land Venture LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
							l., ,, , , , , , , , , , , , , , , , , ,			Massachusetts Mutual Life Insurance	l	74 005			
0000			80-0691253				Gateway Mezzanine Partners I, L.P.	DE	NI A	Company	Ownership/Influence	71.600	MMLIC		
0000			80-0691253				Gateway Mezzanine Partners I, L.P.	DE	NI A	C.M. Life Insurance Company	Ownership	7.700	MMLIC		

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
	•					,				Massachusetts Mutual Life Insurance	,		, , , , , , ,	` ` `	1
0000			90-0991195				Gateway Mezzanine Partners II LP	DE	NI A	Company	Ownership/Influence	42.400			
0000			90-0991195				Gateway Mezzanine Partners II LP	DE	NI A	C.M. Life Insurance Company	Ownership	5.500	. MMLIC		
0000			90-0991195				Gateway Mezzanine Partners II LP	DE	NI A	Barings LLC	Management	<del>-</del>	MMLIC		
0000			37-1708623				Great Lakes III, L.P.	DE	NIA	Company	Ownership/Influence	35.700	MMLIC		
0000			37-1708623				Great Lakes III, L.P.	DE	NIA	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		
0000			38-4032059				JPMDB Commercial Mortgage Securities Trust 2017-C5	NY	NIA	D : 110			MMLIC		
0000			38-4032059				2017-05	NY	NI A	Barings LLC	Management		MMLTC		
0000			20-3887968				Kazwell Realty Partners LLC	DE	NI A	Company	Ownership	100.000			
			20 000/300				Razwerr hearty rai there in the second		NIA	Massachusetts Mutual Life Insurance	Owner arr p	100.000			1
0000			82-1512591				KKR-MM Vector LP	DE	NI A	Company	Ownership/Influence	100.000	MMLIC		
										Massachusetts Mutual Life Insurance	·				
0000			46-4255307				Marco Hotel LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			81-3000420 81-3000420				MM Debt Participations LLC	DE	NI A NI A	Company	Ownership/Influence	100.000	MMLIC		
			81-3000420				MM Debt Participations LLC	UE	NIA	Massachusetts Mutual Life Insurance	management		MMLIC		-
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		
0000			75-2901061				Reston Arboretum LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC		
			75-2901061				Restori Arboretum LLC	UE	NIA	Massachusetts Mutual Life Insurance	_ Owner Strip	100.000	MMLTC		
0000			30-0713071				Riva Portland LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000							Rockall CLO B.V.	GBR	NI A	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			54-2055778				Rockville Town Center LLC	VA	NI A	Company	Ownership	100.000	MMLIC		
0000			04 1500050		1		Codena TEMP Land LLC	חר	NI A	Massachusetts Mutual Life Insurance	O-marahi -	100 000	MMLIC		
0000			04-1590850				Sedona TFMP Land LLC	DE	NI A	Company Massachusetts Mutual Life Insurance	Ownership	100.000	NINIL I U		
0000			20-8856877		1		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	NIA	C.M. Life Insurance Company	Ownership.	2.900	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			20-3887968				South Pasco Properties LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
			l		1				l	Massachusetts Mutual Life Insurance	L				
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	NI A	C.M. Life Insurance Company	Ownership	3.900	MMLIC		-
0000			32-0160190		1		Tower Square Capital Partners II-A, L.P.	DE	NIA	Company	Ownership/Influence	85.000	MMLIC		
0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NI A	C.M. Life Insurance Company	Ownership	15.000	MMLIC		
0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NI A	Barings LLC	Management		MMLIC		
0000			41-2280127				Tower Square Capital Partners III, L.P	DE	NI A	Barings LLC	Management		MMLIC		<b></b>
					1					Massachusetts Mutual Life Insurance	l				
0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NI A	Company	Ownership/Influence	5. 100	MMLIC		
0000			41-2280127				Tower Square Capital Partners III, L.P.	DE	NIA	MassMutual Holding LLC	Ownership/Influence	17.800	[MMLIV		<u>-l</u>

	PART TA - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM														
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											(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)	*
					_					Massachusetts Mutual Life Insurance			1 37 ( 1 - 7 )		
0000			41-2280129				Tower Square Capital Partners IIIA, L.P	DE	NI A	Company	Ownership/Influence	95.700	MMLIC		
0000			41-2280129				Tower Square Capital Partners IIIA, L.P	DE	NI A	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			80-0920367				Tower Square Capital Partners IV-A, L.P	DE	NI A	Company	Ownership/Influence	21.300	MMLIC		
0000			80-0920367				Tower Square Capital Partners IV-A, L.P	DE	NIA	Barings LLC	Management		MMLIC		
0000			04-1590850				West 46th Street Hotel LLC	DE	NI A	Company	Ownership.	100.000	MML1C		
			04-1090600				Barings Emerging Markets Debt Blended Total	UE	NIA	Company	Owner Sirrp	100.000	MMLIC		
0000							Return Fund	IRL	NIA	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Debt Short Duration			54. Higo 120	ina a gonori c				
0000							Fund	IRL	NI A	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Sovereign Debt Fund								
0000								IRL	NI A	Barings LLC	Management		MMLIC		
							Babson Capital Loan Strategies Master Fund LP				1				
0000							D : 01111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	CYM	NIA	Barings LLC	Management	·····	MMLIC		
0000							Barings Global Investment Grade Corporate Plus Fund	IRL	NIA	Barings LLC	Managament		MMLIC		
							Barings Emerging Markets Debt Blended Total	IHL	NIA	Barings LLC	Management		MMLIC		
0000			47-3758432				Return Fund	MA	NIA	Barings LLC	Management		MMLIC		
			47 0730402				Barings Emerging Markets Local Currency Debt			Dai mgs LLC	management		I IIIIL 10		
0000			47-3774453				Fund	MA	NI A	Barings LLC	Management		MMLIC		
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		
0000			71-1018134				0 11 1 11 11 0	DE		Massachusetts Mutual Life Insurance		44 000	MMLIC		
0000			71-1018134 71-1018134				Great Lakes II LLC	DE	NIA NIA	Company C.M. Life Insurance Company	Ownership	11.200	MMLIC		
			/ 1-1016134				Somerset Special Opportunities Master Fund	UE	NI A	C.W. Life insurance company	Owner Ship	1.000	MMLIC		
0000							I P	CYM	NI A	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance	managomori				
0000			04-1590850				Wood Creek Venture Fund LLC	DE	NI A	Company	Ownership	40.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			36-4823011				50 Liberty LLC	DE	NI A	Company	Ownership	59.100	MMLIC		
0000		-	36-4823011				50 Liberty LLC	DE	NI A	C.M. Life Insurance Company	Ownership	5.800	MMLIC		ļ
0000			00 0040000	1				DE	M* *	Massachusetts Mutual Life Insurance		40.000	188 10	1	
0000		-	80-0948028 80-0948028				One Harbor Shore LLC	DE	NI A NI A	CompanyC.M. Life Insurance Company	Ownership	49.900 4.900	MMLIC		
0000			00-0948028				Unie marbur Snore LLC	UE	NI A	Massachusetts Mutual Life Insurance	Uwrier Ship	4.900	MMLIC		
0000			81-4382111				Budapester Strasse LLC	DE	NIA	Company	Ownership.	100,000	MMLIC		
			7002111				Dadapooto, ottasso LLo	UL	NI /	Massachusetts Mutual Life Insurance			. mmL1V		
0000			82-2285211				Calgary Railway Holding LLC	DE	NI A	Company	Ownership	90.000	MMLIC		
0000		.	82-2285211				Calgary Railway Holding LLC	DE	NI A	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
				1						Massachusetts Mutual Life İnsurance					
0000		.	95-4207717				Cornerstone California Mortgage Fund I LLC	CA	NI A	Company	Ownership	100.000	MMLIC		ļ
l			l	I	1					Massachusetts Mutual Life Insurance			I	1	
0000		-	95-4207717				Cornerstone California Mortgage Fund II LLC	CA	NI A	Company	Ownership	100.000	MMLIC		
0000			0E 4007747	1			Cornerstone California Mortgage Fund III LLC	CA	NI A	Massachusetts Mutual Life Insurance	Ownership	100.000	MMLIC	1	
0000		-	95-4207717					UA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	100.000	MINILIO		
0000			56-2630592	I	1		Cornerstone Fort Pierce Development LLC	DE	NI A	Company	Ownership	84.400	MMLIC	1	
0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.600	MMLIC		
		.	00 L00003L				Tool not of the Little of Development FFO	J		o.m. Erro mourance company		۵۵۰ تر ـــــــــــــــــــــــــــــــــــ			. t

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March   Marc								Cornerstone Permanent Mortgage Fund	MA	NI A		Ownership	95.000	MMLIC		ll
1	0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NI A		Management		MMLIC		
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1-17975   1-17	0000			35-2531693				Cornerstone Permanent Mortgage Fund III	MA	NI A		Ownership	100.000	. MMLIC		ll
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December   December	0000			61-1793735				Cornerstone Permanent Mortgage Fund IV	MA	NI A		Ownership	100.000	MMLIC		tl
	0000			26 2200522				CDEA/LYON West Category LLC	DE	NIA		Ownership	54 000	MM IC		1 1
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2000											Massachusetts Mutual Life Insurance	· ·				1 1
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	0000		-	82-1563809				CCB Montford Park LLC	DE	NI A	C.M. Life Insurance Company	Ownership	4.800	MMLIC		tl
December   Company   Com	0000			82_2783303				Danvilla Rivarwalk Vantura IIC	ne ne	NI A		Ownership	100,000	MM IC		1 1
	0000			. 02-2/00090				Danville niverwark venture, LLC		NI A		owner sirrp	100.000	LIC		(
	0000			20-3347091				Fan Pier Development LLC	DE	NI A		Ownership	59.300	MMLIC		L
	0000			20-3347091				Fan Pier Development LLC	DE	NI A		Ownership	5.900	MMLIC		
46-988268   Far ingion Lendon Holdings LLC   E. NIA. C.N. Life Insurance Company   Demonship   5.500   MLC																1 1
0000   03-49588   05-495888   05-49588   05-49588   05-49588   05-49588   05-49588   05-49588   05-49588   05-49588   0																·
				46-3880526				Farringdon London Holdings LLC	VE	NI A		_ Uwnersnip	0.00			·····
	0000		l	20-4819358				Johnston Groves LLC	DE	NI A		Ownership	57.200	MMLIC		L
																1
Port land 400 Sixth Manager LL   E   NIA   Company   Onnership   55,000   Mil C	0000			81-5360103				Landmark Manchester Holdings LLC	DE	NI A		Ownership	100.000	. MMLIC		·
Saloron Brothers Comercial Nortgage Trust   DOM	0000			00 0000400				D 11 1 400 0; 11 14	DE				05.000	100		1 1
2001-MM   DE   NIA   Barings Real Estate Advisers LLC   Intence   Malic   De				82-3393 100				Salomon Brothers Commercial Mortgage Trust	VE	NIA	Company	. Uwnersnip	95.000	MMLIC		·····
	0000								DE	NIA	Barings Real Estate Advisers LLC	Influence		MMLIC		1 1
																1
Decoration   Dec								Sawgrass Village Shopping Center LLC	DE							
Ten Fan Pier Boulevard LLC   DE NIA   Company   Ownership   3.700   MMLIC	0000			27-2977720				Sawgrass Village Shopping Center LLC	DE	NI A		_   Ownership	15.800	MMLIC		<sub>[</sub> ]
Ten Fan Pier Boulevard LLC	0000							Ton Fan Dior Roulevard LLC	DE	NI A		Ownership	3 700	MML IC		1 1
								Ten Fan Pier Boulevard IIC								
DE											Massachusetts Mutual Life Insurance					
0000   35-2484550   Twenty Two Liberty LLC   MA	0000			81-5273574				Three PW Office Holding LLC	DE	NI A	Company	Ownership	95.000	MMLIC		
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.0000	0000		-	35-2484550				I werity IWO Liberty LLC	MA	NI A		_ Uwriersnip	900 هــــــــــــــــــــــــــــــــــ	- MML I U		[
Massachusetts Mutual Life Insurance	0000		l	45-4606547		l		UK LIW Manager LLC	DE	NI A		Ownership	1.000	MML1C		L J
.000												1				
.0000	0000			45-4606547				UK LIW Member LLC	DE	NI A		Ownership	99.000	MMLIC		·
	0000			00 0050001					DE				100.000	IIII 10		1 1
				82-3250684				Unna, Dortmund Holding LLC	UE	NI A		. Uwnership	100.000	- MMLIC		
Massachusetts Mutual Life Insurance	0000			82-3281588				Via Ceresio Milan IIC	DF	NΙΔ		Ownership	100 000	MMLIC		1 1
	0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NI A		Ownership	92.000	MMLIC		

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## **SCHEDULE Y**

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1,000   1,00			·	. MMLIC .	4.800	Ownersnip		NI A	UE	washington Galeway Apartments venture LLC				45-5401109			0000
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March   Marc			٠ ١	MMLIC .	90.000	Owner Strip		NI A	VE	waterford Development Associates				20-29/0495			
1,000			ır.	MML IC	100,000	Ownership		NIA	DE	Waterles London Holdings IIC				47_1003403			0000
65-20230   65-20230			·	- IMMLIC -		Owner Sirrp		NI //	UL	water roo London nordings LLC				47-1000400			0000
46-19229   46-19229			ır.	MML IC	77 400	Ownership		NΙΔ	DE	WeHo Domain II C				46-3122020			0000
11   12   12   13   14   15   15   15   15   15   15   15																	
			•			Carlot Girip.				TOTO DOMETTI EEO				10 0122020			
2000   20-54547   20   30-54			ıc.	MML LC	50 000	Ownership		NIA	DF	Willowwood Lakeside Master IIC				81-1552222			0000
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Macadustal Seriors Dynamic Allocation Find   Macadustal Seriors   Macadustal Ferrier   Maca			·C'	MMLIC	90.000	Ownership	Company	NI A	DE	Yanatio Valley Funding				20-5481477			0000
ST-95500   Control   ST-9550										g,							
S   1-60928   Content			.C'	.MMLIC .	0.000	Ownership	Company	NI A	MA	MassMutual Barings Dynamic Allocation Fund				45-3168892			0000
			!				Massachusetts Mutual Life Insurance										
Description   Description			.C	.MMLIC .	0.000	Ownership		NI A	MA	MassMutual Premier Main Street Fund	00	J000927972		51-0529328			0000
DOCO			!				Massachusetts Mutual Life Insurance			MassMutual Premier Strategic Emerging Markets							
			.C'	.MMLIC .	0.000	Ownership		NI A	MA	Fund	00	J000927972		26-3229251			0000
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1000   161-1992   1000-1993			C	.MMLIC .	0.000	Ownership		NI A	MA		00	J000927972		04-3277550			0000
D000											1		1.				
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DOOD   D-551289   DO0091603   D   Masalutual Select Fundamental Grant Fund   MA			C	. MMLIC .	3.900	Ownership		NI A	MA	Massmutual Select Diversified value Fund	00	1000916053		01-0821120			0000
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D000			·	. IMMLIC .		Owner Sirrp		NI A	MA	wassmutual select Fundamental Growth Fund	04	1000910055		04-3312393			0000
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Massahutal Select Seal Capital Value Equity   Massahutal Life Insurance   Outership   0.000   Massahutal Select Seal Company Value Fund   Massahutal Life Insurance   Outership   0.000   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   0.000   MM. IC   Massahutal Select T. Rose Price Retirement   Massahutal Life Insurance   Outership   0.000   0.000   0.000   0.000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.0000   0.00000   0.00000   0.00000   0.00000   0.00000   0.00000   0.00000   0.00000   0.000000   0.000000   0.0000000   0.00000000			C.	MMLIC	62.500	Ownership		NIA	MA	MassMutual Select Mid-Cap Value Fund	00	0000916053	1	42-1710935			0000
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DOOD   D4-3584140   D00916053   O2   Massablutual Select T. Rove Price Retirement   Massablutual Life Insurance   Donership.   14.600   MM_IC			·C'	MMLIC .	0.000	Ownership	Company	NI A	MA	Fund	0Q	J000916053	(	02-0769954			0000
MassMutual Select T. Rove Price Retirement   Massachusetts Mutual Life Insurance   Company   C			!				Massachusetts Mutual Life Insurance			'							
D000   82-3347422   0000916053   00   2005 Fund   MassMutual Select T. Rowe Price Retirement   MassMutual Life Insurance   Ownership   55.100   MMLIC			.C'	MMLIC .	14.600	Ownership	Company	NI A	MA		0Q	J000916053	(	04-3584140			0000
MassMutual Select T. Rowe Price Retirement   MassMutual Life Insurance   Massachusetts Mutual Life Insuran											1						
D000   82-3355639   D000916053   D0   D100916053   D0   D100916053   D0   D100916053   D0   D100916053   D0   D100916053   D100916053   D1000916053   1000916053   D100916053   D100916053   D100916053   D100916053   D100916053   D100916053   D100916053   D100916053   D1000916053   D100916053		C	MMLIC .	65.100	Ownership		NI A	MA		00	J000916053	(	82-3347422			0000	
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					3.200												
MassMutual Select T. Rowe Price Retirement   Massachusetts Mutual Life Insurance   Ownership   Owner		<u>                                     </u>	·C	MMLIC	0.500	Ownership		NI A	MA		0Q	J000916053		82-3439837			0000 .
MassMutual Select T. Rowe Price Retirement																	
MassMutual Select T. Rowe Price Retirement			.C'	. MMLIC .	0.300	Ownership	Company	NI A	MA	2040 Fund	00	J000916053		82-3451779			0000
MassMutual Select T. Rowe Price Retirement Massachusetts Mutual Life Insurance																	
			C	. MMLIC .	0.800	Ownership		NI A	MA		00	J000916053		82-3472295			0000
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UUUU _     82-3481/15 _     UUUU916U53 _   UU   ZU50 Fund   _			C	.MMLIC .	0.600	Ownership	Company	NI A	MA	2050 Fund	00	0000916053		82-3481715			0000

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1.51723												· ·				1
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	0000			47_3517233				MMI Sarias II Assat Momentum Fund	МΔ	NΙΔ		Ownership	100 000	MMLTC		1
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Company	0000			47-3529636				MML Series II Dynamic Bond Fund	MA	NI A		Ownership	0.000	MMLIC		
March   Marc	0000			47 0544000						NII A			05.000			1
Mathematical State   Second State   Mathematical State   Second	0000			47-3544629				MML Series II Equity Hotation Fund	MA	NI A		Uwnersnip	95.600	MMLIC		
MassAbustal RetireSWET 2005 Fund	0000			47-3559064				MML Series II Special Situations Fund	MA	NI A		Ownership	85.600	MMLIC		i
000								·								1
	0000			46-3289207		0000916053	0Q	MassMutual RetireSMART 2055 Fund	MA	NI A		Ownership	19.000	MMLIC		
	0000			47 5006005		0000016052	00	Macablutus I PatiraSMART 2060 Fund	MA	NIIA		Ownership	97 600	MML IC		1
Company   Comp				47-3320233		0000910055	00	massmutual netilesmani 2000 Fulid	MA	NIA		owner sirrp		. MMLIO		
	0000			45-1618155		0000916053	0Q	MassMutual RetireSMART Conservative Fund	MA	NI A		Ownership	0.000	MMLIC		
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	0000			45-1618222		0000916053	0Q	MassMutual RetireSMART Growth Fund	MA	NI A		Ownership	0.000	MMLIC		
	0000			45-1618262		0000916053	00	MassMutual RetireSMART Moderate Fund	MA	NIA		Ownership	0.000	MMLIC		1
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	0000			Q1_52115Q2				OFI Pictet Global Environmental Solution Fund		NI A	Opponhoimar Funds Inc	Management		MML IC		1
	0000			01-3311303						NI /		management		I IIIILIO		
Oppenheimer   Developing Narkets Equity UCITS   JRL   NIA   Oppenheimer   Oppenheime	0000			93-6305075				Oppenheimer Developing Markets Fund	DE	NI A	Company	Ownership	0.000	MMLIC		ļ
Oppenheimer Developing Markets Equity UDTS   JRL   NIA   OppenheimerFunds, Inc.   Management.   MMLIC																1
Dopenheimer Energing Markets Innovator's UCITS   JRL   NIA   OppenheimerFunds, Inc.   Management   MMLIC													37.200			ł
DOOD   Depenheimer Energing Markets Local Debt UCITS   JRL   NI A   Oppenheimer Funds, Inc.   Management   MML IC								Oppenheimer Emerging Markets Equity UCTIS -		INI A	oppennermerrunus, mc.	. management		MINILI C		1
SA-40740DH     SA-40740DH     SA-40740DH     SA-40740DH     SA-40740DH   SA-40740	0000									NI A	OppenheimerFunds, Inc.	Management		MMLIC		
Document   Document								Oppenheimer Emerging Markets Local Debt UCITS	3							1 ]
Description   Section																
Document   Document																l
0000   0000				01-0482184												
0000   0000				81-3480754												
0000   47-3676235   0000   0																1
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	0000							Oppenheimer Global Unconstrained Bond Fund	DE			Management				
	0000			81-4969331					DE	NI A	OppenheimerFunds, Inc.	Management		. MMLIC		·
Oppenheimer Russell 1000 Dynamic Multifactor	0000			82-3462730					ne ne	NΙΔ	Oppenha i mer Funds Inc	Management		MML IC		i l
				66.170407						NI /	oppositionici unus, mc.	. managonion t		I IIIILI V		
	0000	······		82-2791387					DE	NI A	OppenheimerFunds, Inc.	Management		. MML1C		

## **SCHEDULE Y**

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	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 Russell 2000 Dynamic Multifactor								
0000			82-2794856				ETF	DE	NI A	OppenheimerFunds, Inc.	Management		MMLIC		
0000			00 0740000				Oppenheimer Russell 1000 Momentum Factor ETF	DE		0 1: 5 1 1			188 10		
0000			82-2716323 82-2759921				Oppenheimer Russell 1000 Value Factor ETF	DE		OppenheimerFunds, Inc	Management		MMLIC		
0000			02-2133321				Oppenheimer Russell 1000 Low Volatility			oppermendent unus, mc.	mariagement		mmL10		
0000			82-2701797				Factor ETF	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC		
0000			82-2740997				Oppenheimer Russell 1000 Size Factor ETF	DE		OppenheimerFunds, Inc.	Management		MMLIC		
0000			82-2732571				Oppenheimer Russell 1000 Quality Factor ETF	DE		OppenheimerFunds, Inc.	Management		MMLIC		
0000			82-2768498				Oppenheimer Russell 1000 Yield Factor ETF	DE	NI A	OppenheimerFunds, Inc.	Management		MMLIC		
							Oppenheimer SteelPath MLP & Energy				l., .			[	
0000			82-2222426				Infrastructure Fund	DE	NI A	OppenheimerFunds, Inc.	Management		MMLIC		

Asterisk	Explanation Explanation
1	Massachusetts Mutual Life Insurance Company owns .31% of the affiliated debt of Jefferies Finance LLC
	Debt investors own 6.7% and includes only Great Lakes III, L.P.
	Debt investors own 9.6% and includes only Babson Capital Loan Strategies Fund, L.P.
	Debt investors own 5.4% and includes only Great Lakes III, L.P.
	Debt investors own 7.7% and includes only Great Lakes III, L.P.
6	Debt investors own 5.9% and includes only Great Lakes III, L.P.
7	Debt investors own 7.5% and includes only Great Lakes III, L.P.
1	

#### 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.

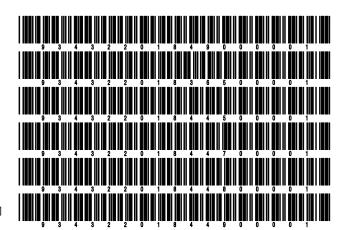
	Response
Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	YES
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
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
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
	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?  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?  Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average

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	3,848,352	3,475,167
2597.	Summary of remaining write-ins for Line 25 from overflow page	3,848,352	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 yill vayill ya		
7.	Deduct current year's other than temporary impalment recommendation and the second sec		
8.	Deduct current year's depreciation		
9.	Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8)		
10.	Deduct total nonadmitted amounts		
11.	Statement value at end of current period (Line 9 minus Line 10)		

#### **SCHEDULE B - VERIFICATION**

Mortgage Loans

		1	2
		V . D .	Prior Year Ended
		Year to Date	December 31
1.	Book value/recorded investment excluding accrued interest, December 31 of prior year	937,488,060	966,906,414
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition	6,532,592	90,944,788
	2.2 Additional investment made after acquisition	2,935,618	6,054,895
3.	2.1 Actual cost at time of acquisition	248,749	1,231,199
4.	Accrual of discount	37,737	196,304
5.	Unrealized valuation increase (decrease)		
6.	Total gain (loss) on disposals  Deduct amounts received on disposals	22,438	(1,777,299)
7.	Deduct amounts received on disposals	11,740,227	133,376,815
8.	Deduct amortization of premium and mortgage interest points and commitment fees	(33,632)	297,796
9.	Total foreign exchange change in book value/recorded investment excluding accrued interest	1,170,083	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)	936,728,682	937,488,060
12.	Total valuation allowance		
13.	Subtotal (Line 11 plus Line 12)	936,728,682	937,488,060
14.	Deduct total nonadmitted amounts		
15.	Statement value at end of current period (Line 13 minus Line 14)	936,728,682	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	9,451,162	7,927,118
	2.1 Actual cost at time of acquisition	8,045,450	30,436,099
3.	Capitalized deferred interest and other		
4.	Accrual of discount		
5.	Unrealized valuation increase (decrease)	4,863,817	33,025,208
6.	Total gain (loss) on disposals	(251,847)	(971,054)
7.	Total gain (loss) on disposals	13,540,533	87,051,539
8.	Deduct amortization of premium and depreciation	2,411	10,506
9.	Total foreign exchange change in book/adjusted carrying value	257,489	1,807,499
10.	Deduct current year's other than temporary impairment recognized		579.350
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)	194,887,124	186,063,997
12.	Deduct total nonadmitted amounts	436,242	424,747
13.	Statement value at end of current period (Line 11 minus Line 12)	194,450,882	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	186,702,605	1, 195, 311, 059
3.	Accrual of discount		7,450,962
4.	Unrealized valuation increase (decrease)	2,561,992	10,659,841
5.	Total gain (loss) on disposals	952,998	(3,818,124)
6.	Deduct consideration for bonds and stocks disposed of	150,682,625	1, 198, 916, 654
7.	Deduct amortization of premium	680 , 144	3,826,992
8.	Total foreign exchange change in book/adjusted carrying value	11,355,614	49,712,831
9.	Deduct current year's other than temporary impairment recognized	4,078,430	4, 136, 579
10.	Total investment income recognized as a result of prepayment penalties and/or acceleration fees	477,599	
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	4,515,833,580	4,466,803,023
12.	Deduct total nonadmitted amounts		
13.	Statement value at end of current period (Line 11 minus Line 12)	4,515,833,580	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

	During the Current Quarter for	2	3	4	5	6	7	8
	Book/Adjusted				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								
BONDS								
1. NAIC 1 (a)	1.987.056.572	141.339.443	104.931.238	(2.645.345)	2.020.819.432			1,987,056,572
2. NAIC 2 (a)	, , , ,	1.368.881.009	1,554,565,615	, , , , , ,	1,630,345,393			1,794,027,179
3. NAIC 3 (a)		35.389.290	66,225,332	, ,	219,419,600			259,208,744
			, ,	, , , ,	, ,			
4. NAIC 4 (a)	· · ·	30,386,606	11,992,239	(14,083,866)	252,413,887			248, 103, 386
5. NAIC 5 (a)		2,582,486	2,542,311	15,792,039	115,553,974			99,721,760
6. NAIC 6 (a)	27,001,342	35,076	1,696,512	(1,576,250)	23,763,656			27,001,342
7. Total Bonds	4,415,118,983	1,578,613,910	1,741,953,247	10,536,296	4,262,315,942			4,415,118,983
PREFERRED STOCK								
8. NAIC 1	4,200,000				4,200,000			4,200,000
9. NAIC 2	8,713,737	73,637	89,712	440,552	9, 138, 214			8,713,737
10. NAIC 3	10,718,547	222.225	250.000	(425.850)	10,264,922			10,718,547
11. NAIC 4	, ,	, -	,	2,044,703	2,498,516			453,813
12. NAIC 5	2.413.440			(2.068.871)	344,569			2.413.440
13. NAIC 6	, , ,			, , , , , , , , , , , , , , , , , , , ,	60,753			60,753
14. Total Preferred Stock	26,560,290	295,862	339,712	(9,466)	26,506,974			26,560,290
15. Total Bonds and Preferred Stock	4,441,679,273	1,578,909,772	1.742.292.959	10,526,830	4,288,822,916			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	2	3	4 Interest Collected	5 Paid for Accrued Interest
	Carrying Value	Par Value	Actual Cost	Year-to-Date	Year-to-Date
9199999 Totals	14,981,911	XXX	14,906,325		

## **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	9,946,925	22, 114, 263
3.	Accrual of discount	61,195	124,219
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals		344
6.	Deduct consideration received on disposals		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)	14,981,911	4,973,791
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	14,981,911	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	458,844
3.	Unrealized Valuation increase/(decrease)	(54,464,319)
4.	Total gain (loss) on termination recognized	(6,188,416)
5.	Considerations received/(paid) on terminations	(6,193,927)
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)	(122,401,312)
10.	Deduct nonadmitted assets	
11.	Statement value at end of current period (Line 9 minus Line 10)	(122,401,312)

	SCHEDULE DB - PART Futures Co		RIFICATIO	N	
1.	Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)				
2.	Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - C	umulative Cash Cha	nge column)		
3.1	Add:				
	Change in variation margin on open contracts - Highly Effective Hedges				
	3.11 Section 1, Column 15, current year to date minus				
	3.12 Section 1, Column 15, prior year				
	Change in variation margin on open contracts - All Other				
	3.13 Section 1, Column 18, current year to date minus	22,338,963			
	3.14 Section 1, Column 18, prior year	3,502,776	18,836,186	18,836,186	
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	22,338,963			
	3.24 Section 1, Column 19, prior year	3,502,776	18,836,186	18,836,186	
3.3	Subtotal (Line 3.1 minus Line 3.2)				
4.1	Cumulative variation margin on terminated contracts during the year		(44,456,267)		
4.2	Less:				
	4.21 Amount used to adjust basis of hedged item				
	4.22 Amount recognized	(47,959,044)	(47,959,044)		
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				(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				
8.	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 Carryin	g Value Check
1.	Part A, Section 1, Column 14.	(122,401,312)	
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance		
3.	Total (Line 1 plus Line 2)		(122,401,312)
4.	Part D, Section 1, Column 5	335,932,217	
5.	Part D, Section 1, Column 6	(435,994,566)	
6.	Total (Line 3 minus Line 4 minus Line 5)		(22,338,963)
		Fair Value C	heck
7.	Part A, Section 1, Column 16	(122,401,312)	
8.	Part B, Section 1, Column 13		
9.	Total (Line 7 plus Line 8)		(100,062,349)
10.	Part D, Section 1, Column 8	335,932,217	
11.	Part D, Section 1, Column 9	(435,994,566)	
12	Total (Line 9 minus Line 10 minus Line 11)		
		Potential Exposu	re Check
13.	Part A, Section 1, Column 21	174,277,001	
14.	Part B, Section 1, Column 20	12,583,400	
15.	Part D, Section 1, Column 11	186,860,401	
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	1,382,364,371	7,272,103,557
3.	Accrual of discount	842,037	2,792,546
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	(880)	1,716
6.	Deduct consideration received on disposals	1,593,065,945	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)	77,965,123	287,825,540
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	77,965,123	287,825,540