QUARTERLY STATEMENT

OF THE

MML Bay State Life Insurance Company

TO THE

Insurance Department

OF THE

STATE OF

FOR THE QUARTER ENDED MARCH 31, 2016

LIFE AND ACCIDENT AND HEALTH

2016



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

QUARTERLY STATEMENT

AS OF MARCH 31, 2016
OF THE CONDITION AND AFFAIRS OF THE

MML Bay State Life Insurance Company

NAIC Group Code 0435 0435 NAIC Company Code 70416 Employer's ID Number 43-0581430

Organized under the Laws of	(Current) (Conne	Prior) ecticut	, State of Domicile or Port of	Entry Connecticut	
Country of Domicile		United States	of America		
Incorporated/Organized	04/01/1935		Commenced Business _	07/01/1894	
Statutory Home Office	100 Bright Meadov	v Boulevard ,		Enfield , CT, US 06082	
	(Street and Nu	umber)	(City or	Town, State, Country and Zip Code)	
Main Administrative Office _		1295 State			
	Springfield , MA, US 01111	(Street and	/	413-788-8411	
(City or	Town, State, Country and Zip C			rea Code) (Telephone Number)	
Mail Address	1295 State Street	•		Springfield , MA, US 01111	
- Ividii / Idai 033	(Street and Number or P.		(City or	Town, State, Country and Zip Code)	
Primary Location of Books and	Pocords	1295 State	o Stroot		
Filliary Location of Books and	necords	(Street and			
	Springfield , MA, US 01111			413-788-8411	
(City or	Town, State, Country and Zip C	Code)	A)	rea Code) (Telephone Number)	
Internet Website Address		www.massm	utual.com		
Statutory Statement Contact	Tammy	A. Peatman		413-744-6327	
Statisticity Statement Contact		(Name)	(Area Code) (Telephone Number)		
	peatman@massmutual.com		,		
	(E-mail Address)			(FAX Number)	
		OFFIC	ERS		
President and Chief	D 14/11/	0 1 11	-	T 110 " " D' 1	
Executive Officer Roger William Secretary Pia Denise F			Apointed Actuary	Todd Garett Picken Douglas Wright Taylor	
Michael Thomas Rollings, E Chief Finar Melvin Timothy Corbett,		Mark Douglas Roellig, Exe General (Counsel	Michael Robert Fanning, Executive Vice President	
	andall - Chairman	Michael Rob		Michael Thomas Rollings	
Mark Doug	las Roellig				
State of County of	Massachusetts Hampden	SS:			
	патраен				
all of the herein described ass statement, together with relate condition and affairs of the sai in accordance with the NAIC A rules or regulations require or respectively. Furthermore, the	sets were the absolute propertion of a knibits, schedules and explaint of reporting entity as of the reporting entity as of the reporting and the schedules in reporting not respectively.	y of the said reporting entity, anations therein contained, an rting period stated above, and and Accounting Practices and lated to accounting practices te described officers also include the described of the described the described t	free and clear from any liens nexed or referred to, is a full a of its income and deductions Procedures manual except to and procedures, according udes the related corresponding	orting entity, and that on the reporting period stated above, or claims thereon, except as herein stated, and that this and true statement of all the assets and liabilities and of the therefrom for the period ended, and have been completed to the extent that: (1) state law may differ; or, (2) that state to the best of their information, knowledge and belief, g electronic filing with the NAIC, when required, that is an be requested by various regulators in lieu of or in addition	
Roger William C President and Chief Exe		Pia Denise I Secret	_	Todd Garett Picken Treasurer	
Subscribed and sworn to befor day of			a. Is this an original filing b. If no, 1. State the amendm 2. Date filed	ent number	

ASSETS

			Current Statement Date		4
		1 Assets	2 Nonadmitted Assets	3 Net Admitted Assets (Cols. 1 - 2)	December 31 Prior Year Net Admitted Assets
1.	Bonds	243,451,148	Ĭ		222,828,946
2.	Stocks:			, ,	, ,
	2.1 Preferred stocks				
	2.2 Common stocks				
3.	Mortgage loans on real estate:				
	3.1 First liens	5,396,130		5,396,130	5,847,458
	3.2 Other than first liens.				
4.	Real estate:				
	4.1 Properties occupied by the company (less \$				
	4.2 Properties held for the production of income (less				
	\$encumbrances)				
	4.3 Properties held for sale (less \$				
	encumbrances)				
5.	Cash (\$(1,824,715)), cash equivalents				
٥.	(\$				
	investments (\$	50 040 714		50 040 714	61 200 420
	Contract loans (including \$ premium notes)				
6. 7	Derivatives				
7.					
8.	Other invested assets				
9.					
10.	Securities lending reinvested collateral assets				
11.	Aggregate write-ins for invested assets				205 572 240
12.					
13.	Title plants less \$ charged off (for Title insurers only)				
1.1	Investment income due and accrued				
		4,320,244		4,320,244	4,042,902
15.	Premiums and considerations:				1 050
	15.1 Uncollected premiums and agents' balances in the course of collection15.2 Deferred premiums, agents' balances and installments booked but				,000
	deferred and not yet due (including \$earned but unbilled premiums)	(1 250 664)		(1 250 664)	(2.124.000)
		(1,339,004)	/	(1,359,004)	(2,124,900)
	15.3 Accrued retrospective premiums (\$				
10	contracts subject to redetermination (\$				
16.	Reinsurance:	4 100 044		4,190,044	5,325,462
	16.1 Amounts recoverable from reinsurers				
	16.2 Funds held by or deposited with reinsured companies			21,354,270	01 100 000
47	16.3 Other amounts receivable under reinsurance contracts				
	Amounts receivable relating to uninsured plans				2 000 275
	Current federal and foreign income tax recoverable and interest thereon				3,088,375
	Net deferred tax asset				3,746,941
19.	Guaranty funds receivable or on deposit				214 , 116
20.	Electronic data processing equipment and software				
21.	Furniture and equipment, including health care delivery assets				
00	(\$				
22.	Net adjustment in assets and liabilities due to foreign exchange rates				004 040
23.	Receivables from parent, subsidiaries and affiliates				
24.	Health care (\$				
25.	Aggregate write-ins for other than invested assets				
26.	Total assets excluding Separate Accounts, Segregated Accounts and Protected Cell Accounts (Lines 12 to 25)	432.750.345	2.689.075	430.061.270	421.257.703
27.	From Separate Accounts, Segregated Accounts and Protected Cell Accounts				
28	Total (Lines 26 and 27)	4,733,485,201		4,730,796,126	4,700,075,825
20.	DETAILS OF WRITE-INS	4,700,400,201	2,000,010	4,700,700,120	4,700,070,020
1101					
1101.					
1102.					
1103.	Summary of romaining write ins for Line 11 from everflow page				
1198.	Summary of remaining write-ins for Line 11 from overflow page				
1199.	Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)				
2501.					
2502.					
2503.	0				
2598.	Summary of remaining write-ins for Line 25 from overflow page				
2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)				

LIABILITIES, SURPLUS AND OTHER FUNDS

		1 Current	2 December 31
1.	Aggregate reserve for life contracts \$	Statement Date	Prior Year
	(including \$		
3. 4.	Liability for deposit-type contracts (including \$	10,630,494	9,891,826
	4.1 Life 4.2 Accident and health		
5.	Policyholders' dividends \$ and coupons \$ due and unpaid		
6.	Provision for policyholders' dividends and coupons payable in following calendar year - estimated amounts:		
	Dividends apportioned for payment (including \$		
7.	6.3 Coupons and similar benefits (including \$		
	Premiums and annuity considerations for life and accident and health contracts received in advance less		
9.	\$discount; including \$accident and health premiums	3, 157	2,383
0.	9.1 Surrender values on canceled contracts		
	9.2 Provision for experience rating refunds, including the liability of \$ accident and health experience rating refunds of which \$ is for medical loss ratio rebate per the Public Health Service Act	11 186 085	11 172 256
	9.3 Other amounts payable on reinsurance, including \$ assumed and \$5,320,940		
	ceded	5,320,940 363 145	798,473
10.	Commissions to agents due or accrued-life and annuity contracts \$57,007, accident and health		
	\$ and deposit-type contract funds \$		
11. 12.	Commissions and expense allowances payable on reinsurance assumed		
13.	Transfers to Separate Accounts due or accrued (net) (including \$(638,928) accrued for expense		
14.	allowances recognized in reserves, net of reinsured allowances)	227,273	234,258
15.1	Current federal and foreign income taxes, including \$ on realized capital gains (losses)		
15.2 16.	Net deferred tax liability		
	Amounts withheld or retained by company as agent or trustee	(285)	16,902
18. 19.	Amounts held for agents' account, including \$ agents' credit balances	367,971	(275,038)
20.	Net adjustment in assets and liabilities due to foreign exchange rates		
21. 22.	Liability for benefits for employees and agents if not included above		
	Dividends to stockholders declared and unpaid		
24.	Miscellaneous liabilities: 24.01 Asset valuation reserve	4,617,168	4,666,310
	24.02 Reinsurance in unauthorized and certified (\$) companies		
	24.04 Payable to parent, subsidiaries and affiliates		
	24.05 Drafts outstanding		
	24.07 Funds held under coinsurance		
	24.08 Derivatives		
	24.10 Payable for securities lending		
25.	24.11 Capital notes \$ and interest thereon \$ Aggregate write-ins for liabilities	187,766	515,565
26.	Total liabilities excluding Separate Accounts business (Lines 1 to 25)	192,888,884	189,956,698
27. 28.	From Separate Accounts Statement Total liabilities (Lines 26 and 27)	4,300,734,856 4,493,623,740	4,278,818,122 4,468,774,820
	Common capital stock		2,500,200
30. 31.	Preferred capital stock		
32.	Surplus notes		
33. 34.	Gross paid in and contributed surplus		
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 \$		
	Surplus (Total Lines 31+32+33+34+35-36) (including \$	234,672,186 237,172,386	228,800,805 231,301,005
	Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3)	4,730,796,126	4,700,075,825
2501.	DETAILS OF WRITE-INS Miscellaneous liabilities	1/16 160	297,428
	Funds awaiting escheat		
2503. 2598.	Summary of remaining write-ins for Line 25 from overflow page		
2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	187,766	515,565
3103.			
	Summary of remaining write-ins for Line 31 from overflow page		
	Totals (Lines 3101 through 3103 plus 3196)(Line 31 above)		
3402. 3403.			
3498.	Summary of remaining write-ins for Line 34 from overflow page		
3499.	Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)		

SUMMARY OF OPERATIONS

		1	2	3
		Current Year	Prior Year	Prior Year Ended
	D	To Date	To Date	December 31
	Premiums and annuity considerations for life and accident and health contracts		6,391,043	24,468,709
3.				12,852,135
4.	Amortization of Interest Maintenance Reserve (IMR)			197,060
5.	Separate Accounts net gain from operations excluding unrealized gains or losses			
6.	Commissions and expense allowances on reinsurance ceded	1,425,644	1,399,378	5,631,952
7.	Reserve adjustments on reinsurance ceded	(4,590,552)	(3,490,774)	(15,069,413)
8.	Miscellaneous Income:			
	8.1 Income from fees associated with investment management, administration and contract guarantees from Separate Accounts.	10 702 200	10 102 007	70,035,625
	guarantees from Separate Accounts. 8.2 Charges and fees for deposit-type contracts		19, 100,007	70,000,020
	8.3 Aggregate write-ins for miscellaneous income		(278,472)	(932.285)
9.	Totals (Lines 1 to 8.3)	25,378,395	26.186.936	97,183,783
	Death benefits		11,592,730	46,519,558
11.	Matured endowments (excluding guaranteed annual pure endowments)		, ,	
12.	Annuity benefits	664,790	461,610	918,837
13.	Disability benefits and benefits under accident and health contracts	113,982	96,724	479,467
14.	Coupons, guaranteed annual pure endowments and similar benefits			
15.	Surrender benefits and withdrawals for life contracts		13,828,512	48,806,554
16.	Group conversions		140, 450	700 070
17.	Interest and adjustments on contract or deposit-type contract funds		140,459	702,273
18. 19.	Payments on supplementary contracts with life contingencies		1,439,965	4,945,662
20.	Totals (Lines 10 to 19)		27,560,000	102,372,351
21.	Commissions on premiums, annuity considerations, and deposit-type contract funds (direct	27,100,042	27,000,000	102,072,001
1	business only)		848,993	3,399,662
22.	Commissions and expense allowances on reinsurance assumed			
23.	General insurance expenses			8,068,586
24.	Insurance taxes, licenses and fees, excluding federal income taxes		350,984	1, 118, 136
25.	Increase in loading on deferred and uncollected premiums	(1,012)	(693)	(556)
26.	Net transfers to or (from) Separate Accounts net of reinsurance		(11,098,336)	(45, 187, 681)
27.	Aggregate write-ins for deductions	(379,884) 18,897,692	14,108 19,567,270	62,351 69,832,849
28. 29.	Totals (Lines 20 to 27)	10,097,092	19,307,270	09,032,049
29.	Line 28)	6,480,703	6,619,666	27,350,934
30.	Dividends to policyholders.		, 0,000	
31.	Net gain from operations after dividends to policyholders and before federal income taxes (Line 29			
	minus Line 30)		6,619,666	27,350,934
32.	Federal and foreign income taxes incurred (excluding tax on capital gains)	1,192,641	1,457,027	6,658,379
33.	Net gain from operations after dividends to policyholders and federal income taxes and before	5.288.062	5,162,639	20 602 555
34.	realized capital gains or (losses) (Line 31 minus Line 32)	3,200,002		20,692,555
34.	gains tax of \$			
	transferred to the IMR)	226	(4,828)	(35,042)
35.	Net income (Line 33 plus Line 34)	5.288.288	5.157.811	20.657.513
	CAPITAL AND SURPLUS ACCOUNT	***************************************	2,121,111	
36.	Capital and surplus, December 31, prior year	231,301,005	211,693,698	211,693,698
37.	Net income (Line 35)	5,288,288	5,157,811	20,657,513
38.	Change in net unrealized capital gains (losses) less capital gains tax of \$(1,620)	(3,009)		
39.	Change in net unrealized foreign exchange capital gain (loss)			
	Change in net deferred income tax			
	Change in nonadmitted assets		·	
42.	Change in liability for reinsurance in unauthorized and certified companies			
43.	Change in reserve on account of change in valuation basis, (increase) or decrease			(242 E0E)
44. 45.	Change in treasury stock			(342,595)
46.	Surplus (contributed to) withdrawn from Separate Accounts during period			
47.	Other changes in surplus in Separate Accounts Statement			
48.	Change in surplus notes			
49.	Cumulative effect of changes in accounting principles			
50.	Capital changes:			
	50.1 Paid in			
	50.2 Transferred from surplus (Stock Dividend)			
	50.3 Transferred to surplus	 		
51.	Surplus adjustment:			
	51.1 Paid in			
	51.3 Transferred from capital			
	51.4 Change in surplus as a result of reinsurance			
52.	Dividends to stockholders			
	Aggregate write-ins for gains and losses in surplus			
	Net change in capital and surplus for the year (Lines 37 through 53)	5,871,381	5,409,631	19,607,307
55.	Capital and surplus, as of statement date (Lines 36 + 54)	237,172,386	217, 103, 329	231,301,005
	DETAILS OF WRITE-INS			-
	Sub-advisory fees			
	Other miscellaneous income	97,303	,	608,252
	Summary of remaining write-ins for Line 8.3 from overflow page		(970, 470)	(000,005)
	Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	(208,707)	(278,472)	(932,285)
	Miscellaneous charges to operations	` ' '	,	02,351
	Summary of remaining write-ins for Line 27 from overflow page			
	Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(379,884)	14, 108	62,351
	Totalo (Elito El o Tallough El o O plao El o O) (Elito El abovo)	` ′ ′	,	
5302.				
	Summary of remaining write-ins for Line 53 from overflow page			
5399.	Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)			

CASH FLOW

	OACITI ECTI			
		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	4,507,863	5,091,144	22,222,47
2.	Net investment income	3,082,827	2,613,909	12,057,37
3.	Miscellaneous income	21,323,750	17,491,784	58,356,70
4.	Total (Lines 1 to 3)	28,914,440	25,196,837	92,636,56
5.	Benefit and loss related payments	26,281,071	20,914,840	92,108,97
6.	Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(7,652,790)	(12,793,833)	(45, 157, 20
7.	Commissions, expenses paid and aggregate write-ins for deductions	3,449,502	4,010,709	13,204,99
8.	Dividends paid to policyholders			
9.	Federal and foreign income taxes paid (recovered) net of \$52,001 tax on capital			
	gains (losses)	(728,334)	(3, 153, 253)	4,335,48
10.	Total (Lines 5 through 9)	21,349,449	8,978,463	64,492,25
11.	Net cash from operations (Line 4 minus Line 10)	7,564,991	16,218,374	28,144,3
	Cash from Investments			
12.	Proceeds from investments sold, matured or repaid:			
	12.1 Bonds	8 246 765	1 883 511	26 695 50
	12.2 Stocks			25,000,00
	12.3 Mortgage loans			
	12.4 Real estate			11,0
	12.5 Other invested assets			
	12.6 Net gains or (losses) on cash, cash equivalents and short-term investments			1;
	12.7 Miscellaneous proceeds	(870,925)	505,203	499,6
	12.8 Total investment proceeds (Lines 12.1 to 12.7)			27,906,9
12	Cost of investments acquired (long-term only):	7,024,140	2,310,230	21,900,9
	13.1 Bonds	20 022 225	10 //7 520	104 502 4
	13.2 Stocks			2.394.9
				2,094,9
	13.4 Real estate			
	13.5 Other invested assets	(1,433,291)	1	
	13.6 Miscellaneous applications			106 007 4
	13.7 Total investments acquired (Lines 13.1 to 13.6)	27,400,113	18,447,539	106,987,4
14.	Net increase (or decrease) in contract loans and premium notes	(486,201)	315,346	1,586,20
15.	Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	(19,089,764)	(16,252,647)	(80,666,7
	Cash from Financing and Miscellaneous Sources			
16.	Cash provided (applied):			
	16.1 Surplus notes, capital notes			
	16.2 Capital and paid in surplus, less treasury stock			
	16.3 Borrowed funds			
	16.4 Net deposits on deposit-type contracts and other insurance liabilities	669 , 123	4,023,067	3,385,2
	16.5 Dividends to stockholders			
	16.6 Other cash provided (applied)	515,936	38,413	(309,72
17.	Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	1,185,059	4,061,480	3,075,49
	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)	(10,339,714)	4,027,207	(49,446,9
	Cash, cash equivalents and short-term investments:		. ,	. , , , , , , ,
19.				
19.	19.1 Beginning of year	61,289.428	110,736,395	110,736,39

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

Note: Supplemental disclosures of cash now information for non-cash transactions.			
20.0001. Bond conversions and refinancing	500.000		1.717.983
20.0002. Interest capitalization for long-term debt		986	2,091
			*

EXHIBIT 1

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

To Date To Date Decided	2,743,977
To Date To Date Decided	
1. Industrial life 9,400,164 9,803,742 2. Ordinary life insurance 9,400,164 9,803,742 3. Ordinary individual annuities 2,865 4,715 4. Credit life (group and individual) 19,198 (842,593) 5. Group life insurance 19,198 (842,593) 6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other 9. A & H - other 9,400,164 9,803,742 4. Ordinary individual annuities 2,865 4,715 4. Ordinary individual annuities 19,198 (842,593)	40,121,999
2. Ordinary life insurance 9,400,164 9,803,742 3. Ordinary individual annuities 2,865 4,715 4. Credit life (group and individual) 19,198 (842,593) 5. Group life insurance 19,198 (842,593) 6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	2,743,977
2. Ordinary life insurance 9,400,164 9,803,742 3. Ordinary individual annuities 2,865 .4,715 4. Credit life (group and individual)	2,743,977
3. Ordinary individual annuities 2,865 4,715 4. Credit life (group and individual) 19,198 (842,593) 5. Group life insurance 19,198 (842,593) 6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	2,743,977
3. Ordinary individual annuities 2,865 4,715 4. Credit life (group and individual) 19,198 (842,593) 5. Group life insurance 19,198 (842,593) 6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	2,743,977
3. Ordinary individual annuities 2,865 4,715 4. Credit life (group and individual) 19,198 (842,593) 5. Group life insurance 19,198 (842,593) 6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	2,743,977
4. Credit life (group and individual) 5. Group life insurance	2,743,977
4. Credit life (group and individual) 5. Group life insurance	2,743,977
5. Group life insurance	2,743,977
5. Group life insurance	2,743,977
6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	
6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	
6. Group annuities 7. A & H - group 8. A & H - credit (group and individual) 9. A & H - other	
7. A & H - group	
7. A & H - group	
8. A & H - credit (group and individual)	
8. A & H - credit (group and individual)	
9. A & H - other	
9. A & H - other	
10. Aggregate of all other lines of business	
10. Aggregate of all other lines of business	
11. Subtotal 9,422,227 8,965,864	42,881,876
12. Deposit-type contracts	
12. Deposit type Contracts	
13. Total 9,422,227 8,965,864	42,881,876
DETAILS OF WRITE-INS	
1001.	
1001	
1002.	
1003.	
1098. Summary of remaining write-ins for Line 10 from overflow page	
1000. Outliniary of femalishing write-ins for Line to from overflow page	
1099. Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)	

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Note 1 - Summary of Significant Accounting Policies and Going Concern

a. Accounting practices:

The accompanying financial statements of MML Bay State 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:

	State of		
	Domicile	2016	2015
NET INCOME	,		
(1) State basis (Page 4, Line 35, Columns 1 & 3)	CT	\$ 5,288,288	\$ 20,657,513
(2) State prescribed practices that increase (decrease) NAIC SAP	-	-	-
(3) State permitted practices that increase (decrease) NAIC SAP	-	-	-
(4) NAIC SAP (1-2-3=4)	CT	\$ 5,288,288	\$ 20,657,513
SURPLUS			
(5) State basis (Page 3, Line 38, Columns 1 & 2)	CT	\$ 237,172,386	\$ 231,301,005
(6) State prescribed practices that increase (decrease) NAIC SAP	-	-	-
(7) State permitted practices that increase (decrease) NAIC SAP	-	 	
(8) NAIC SAP (5-6-7=8)	CT	\$ 237,172,386	\$ 231,301,005

- b. Use of estimates in the preparation of the financial statements No change
- c. Accounting policy:
 - (1-5) No change
 - (6) For fixed income securities that do not have a fixed schedule of payments, 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 for each type of security.

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

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

(7-14) No change

d. Going concern - No change

Note 2 - Accounting Changes and Corrections of Errors

a. For the three months ended March 31, 2016 and 2015, the Company did not record any corrections of prior year errors.

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

b. Adoption of new accounting standards – No change

Note 3 – Business Combinations and Goodwill – No change

Note 4 - Discontinued Operations - No change

Note 5 - Investments

- a. Mortgage loans No change
- b. Debt restructuring No change
- c. Reverse mortgages No change
- d. Loan-backed and structured securities:
 - (1) Prepayment assumptions for loan-backed and structured securities are based on various assumptions and inputs obtained from external industry sources along with internal analysis and actual experience.
 - (2) There were no loan-backed or structured securities that recognized OTTI in the period ended March 31, 2016.
 - (3) There were no impaired structured securities through the period ended March 31, 2016.

- (4) As of March 31, 2016, 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:
 - The aggregate amount of unrealized losses:

Less than 12 months
 12 months or longer
 (834,843)
 (104,542)

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

 1. Less than 12 months
 \$ 23,940,294

 2. 12 months or longer
 \$ 1,940,243

- (5) No change
- e. Repurchase agreements:
 - (1-2) No change
 - (3) The Company does not have any securities lending transactions administered by an affiliated agent.
 - (4-6) No change
- f. The Company does not have any investments in real estate.
- g. Low income housing tax credit properties No change
- h. Restricted assets No change
- i. Working capital finance investments The Company did not invest in working capital finance investments.
- j. Offsetting and netting of assets and liabilities The Company does not currently hold derivatives, repurchase agreements, reverse repurchase agreements or securities lending assets and liabilities.
- k Structured notes

A structured note is a direct debt issuance by a corporation, municipality, or government entity, ranking pari-passu with the issuer's other debt issuance of equal seniority where either: (a) the coupon and/or principal payments are linked, in whole or in part, to prices or payment streams from index or indices, or assets deriving their value from other than the issuer's credit quality, or (b) the coupon and/or principal payments are leveraged by a formula that is different from either a fixed coupon, or a non-leveraged floating rate coupon linked to an interest rate index, including but not limited to the London Interbank Offered Rate (LIBOR) or the prime rate. As structured notes are issuer obligations without a trust, they are within the scope of SSAP No. 26, "Bonds, Excluding Loan-backed and Structured Securities" (SSAP No. 26). Structured notes are different than the asset backed structured securities, which are accounted for under SSAP No. 43R, "Revised - Loan-Backed and Structured Securities" (SSAP No. 43R), as they lack either a trust or assets backing them. The disclosure below allows regulators to assess the volume of activity in structured notes and to determine whether additional accounting or reporting revisions, such as valuation and risk-based capital, are needed. To satisfy this request, the Company is required to separately identify structured notes, on a CUSIP basis and provide information by CUSIP for actual cost, fair value, book/adjusted carrying value, and whether the structured note is a mortgage-referenced security. The following sets forth the actual cost, fair value and carrying value of structured notes as of March 31, 2016:

CUSIP Identification	Actual Cost	Faii	r Value	Book / Adjusted Carrying Value	R	Mortgage- leferenced Security YES/NO)
391164AF7	\$ 526.394	\$	531.295	\$ 526.394		NO

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

Note 7 - Investment Income - No change

Note 8 - Derivative Instruments - No change

Note 9 - Income Taxes - No change

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

Note 11 - Debt

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

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

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

- Assessments No change b.
- Gain contingencies No change
- Claims related to extra contractual obligations No change d.
- All other contingencies: e.

The Company is involved in litigation arising in the normal course of business, which seeks compensatory damages, punitive damages and equitable remedies. Although the Company is not aware of any actions or allegations that reasonably should give rise to a material adverse impact to the Company's financial position or liquidity, the outcome of litigation cannot be foreseen with certainty. It is the opinion of management that the ultimate resolution of these matters will not materially impact the Company's financial position or liquidity. However, the outcome of a particular proceeding may be material to the Company's results of operations for a particular period depending upon, among other factors, the size of the loss and the level of the Company's results of operations for the period.

Regulatory matters:

The Company is subject to governmental and administrative proceedings and regulatory inquiries, examinations and investigations in the ordinary course of its business. In connection with regulatory inquiries, examinations and investigations, the Company has been contacted by various regulatory agencies including, among others, the Securities and Exchange Commission, the U.S. Department of Labor and various state insurance departments and state attorneys general. The Company has cooperated fully with these regulatory agencies with regard to their inquiries, examinations and investigations and has responded to information requests and comments.

Market volatility in the financial services industry over the last several years has contributed to increased scrutiny of the entire financial services industry. Therefore, the Company believes that it is reasonable to expect that proceedings, regulatory inquiries, examinations and investigations into the insurance and financial services industries will continue for the foreseeable future. Additionally, new industry-wide legislation, rules and regulations could significantly affect the insurance and financial services industries as a whole. It is the opinion of management that the ultimate resolution of these regulatory inquiries, examinations, investigations, legislative and regulatory changes of which we are aware will not materially impact the Company's financial position or liquidity. However, the outcome of a particular matter may be material to the Company's operating results for a particular period depending upon, among other factors, the financial impact of the matter and the level of the Company's results of operations for the period.

Note 15 - Leases - No change

Note 16 - Information About Financial Instruments With Off-Balance Sheet Risk and Financial Instruments With Concentrations of Credit Risk - No change

Note 17 - Sale, Transfer and Servicing of Financial Assets and Extinguishments of Liabilities

- Transfers of receivables reported as sales No change
- Transfer and Servicing of Financial Assets:
 - No change (1)
 - The Company did not have any servicing assets or liabilities in 2016 or 2015. (2)
 - (3)
 - The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2016 or 2015. (4)
 - (5-7) No change
- Wash sales:
 - In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days to (1) enhance the Company's yield on its investment portfolio.
 - The Company did not sell any securities with the NAIC Designation 3 or below through the first quarter ended March 31, (2) 2016 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

- 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 London Interbank Offered Rate (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, 2016				
	Level 1	Level 2	Level 3	Total	
Financial assets:					
Bonds:					
Parent, subsidiaries and affiliates	\$ -	\$ 72,424	\$ -	\$ 72,424	
Separate account assets ⁽¹⁾	891,795,418	2,290,844,320	-	3,182,639,738	
Total financial assets carried at fair value	\$ 891,795,418	\$ 2,290,916,744	\$ -	\$ 3,182,712,162	

⁽¹⁾\$1,118,095,118 of book value separate account assets are not carried at fair value and, therefore, are not included in this table.

In 2016, there were no significant transfers between Level 1 and Level 2.

		Decembe	r 31, 2015	
	Level 1	Level 2	Level 3	Total
Financial assets: Separate account assets ⁽¹⁾	\$ 920,856,788	\$ 2,266,948,730	\$	- \$ 3,187,805,518
Total financial assets carried	- 020,000,100	2,200,010,100		
at fair value	\$ 920,856,788	\$ 2,266,948,730	\$	- \$ 3,187,805,518

(1)\$1,091,012,604 of book value separate account assets are not carried at fair value and, therefore, are not included in this table.

In 2015, there were no significant transfers between Level 1 and Level 2.

- 2. The Company does not have any Level 3 financial instruments that are carried at fair value.
- 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. There are no financial assets or liabilities classified as Level 3 in 2016 and 2015.
- 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 rating, 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 issues 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 upon 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.

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

	March 31, 2016									
	Aggregate Fair Value		Admitted Assets		Level 1		Level 2	Level 3	Prac (Ca	Not eticable errying alue)
Financial assets:										
Bonds:										
U. S. government and agencies	\$ 55,029,930	\$	54,273,730	\$	- \$	\$	55,029,930	\$ -	\$	-
Special revenue	91,617		82,069		-		91,617	-		-
Industrial and miscellaneous	191,601,838		187,470,498		-		181,968,710	9,633,128		-
Parent, subsidiaries and affiliates	1,645,318		1,624,851		-		1,645,318	-		-
Mortgage loans - residential	5,360,669		5,396,130		-		-	5,360,669		-
Cash, cash equivalents and										
short-term investments	50,949,714		50,949,714		(1,824,715)		52,774,429	-		-
Separate account assets	4,329,123,325		4,300,734,856		891,795,418	3,4	419,182,120	18,145,787		-
Financial liabilities:										
Individual annuity contracts	2,265,256		3,185,063		-		-	2,265,256		-
Supplementary contracts	10,684,440		10,578,653		-		-	10,684,440		-

	December 31, 2015									
	Aggregate Fair Value		Admitted Assets		Level 1		Level 2		Level 3	Not racticable (Carrying Value)
Financial assets:										,
Bonds:										
U. S. government and agencies	\$ 54,012,879	\$	54,269,462	\$	-	\$	54,012,879	\$	-	\$ -
Special revenue	97,732		88,536		-		97,732		-	-
Industrial and miscellaneous	167,805,616		166,830,245		-		156,151,861		11,653,755	-
Parent, subsidiaries and affiliates	1,667,302		1,640,703		-		1,667,302		-	-
Mortgage loans - residential	5,745,384		5,847,458		-		-		5,745,384	-
Cash, cash equivalents and										
short-term investments	61,289,428		61,289,428		1,211,195		60,078,233		-	-
Separate account assets	4,285,418,011		4,278,818,122		920,856,788		3,345,522,236		19,038,987	-
Financial liabilities:										
Individual annuity contracts	2,266,224		3,168,097		-		-		2,266,224	-
Supplementary contracts	9,928,086		9,829,788		-		-		9,928,086	-

d. For the three months ended March 31, 2016, 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 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, 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 and other long-term care insurance policies to mitigate the impact of its underwriting risk.

Investment and interest rate risks

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

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

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

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

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 capital 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. Market factors, including interest rates, credit spread quality, equity prices, consumer spending, business investment, government spending, the volatility and strength of the capital markets, deflation and inflation, all affect the business and economic environment and, ultimately, the profitability of the Company's business. Disruptions in one market or asset class can also spread to other markets or asset classes. Upheavals in the financial markets can also affect the Company's business through their effects on general levels of economic activity, employment and customer behavior.

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

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) The actual cost reduced by paydowns, carrying value, fair value and related gross realized losses from OTTI of the Company's investments with significant Alt-A and subprime exposure were as follows:

		Ma	arch 31, 2016			Thre	ee Months Ended March 31, 2016
	Actual		Carrying		Fair		
Alt-A:	Cost		Value		Value		OTTI
a. Residential mortgage-backed securitiesb. Commercial mortgage-backed securities	2,269,693	\$	1,491,682	\$	1,932,340	\$	-
b. Commercial mortgage-backed securitiesc. Collateralized debt obligations	_		_		_		-
d. Structured securities	-		-		-		-
e. Equity investments in subsidiary	-		-		-		-
and controlled affiliates	-		-		-		-
f. Other assets	-		-		-		
g. Total <u>\$</u>	2,269,693	\$	1,491,682	\$	1,932,340	\$	
		Ma	arch 31, 2016			Thre	ee Months Ended March 31, 2016
_	Actual		Carrying		Fair		_
Subprime:	Cost		Value		Value		OTTI
a. Residential mortgage-backed securities \$	3,507,561	\$	1,886,713	\$	2,284,265	\$	-
b. Commercial mortgage-backed securitiesc. Collateralized debt obligations	-		-		<u>-</u>		-
d. Structured securities	-		_		_		- -
e. Equity investments in subsidiary	=		_		_		-
and controlled affiliates	-		-		-		-
f. Other assets	-		-		-		
g. Total <u>\$</u>	3,507,561	\$	1,886,713	\$	2,284,265	\$	<u>-</u>
		Dece	mber 31 201	5			Year Ended
_	Actual		ember 31, 2018 Carrying	5	Fair		Year Ended ember 31, 2015
Alt-A:	Actual Cost		ember 31, 2018 Carrying Value	5	Fair Value		
a. Residential mortgage-backed securities \$			Carrying	\$			ember 31, 2015
a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities	Cost	(Carrying Value		Value	Dec	ember 31, 2015
 a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations 	Cost	(Carrying Value		Value	Dec	ember 31, 2015
 a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities 	Cost	(Carrying Value		Value	Dec	ember 31, 2015
 a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations 	Cost	(Carrying Value		Value	Dec	ember 31, 2015
 a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary 	Cost	(Carrying Value		Value	Dec	ember 31, 2015
 a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates 	Cost	(Carrying Value		Value	Dec	ember 31, 2015
 a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets 	Cost 2,337,013 2,337,013	\$ \$ Dece	Carrying Value 1,542,651 1,542,651 ember 31, 201	\$	Value 1,965,258 1,965,258	\$	ember 31, 2015
 a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total 	Cost 2,337,013 2,337,013 Actual	\$ \$ Dece	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying	\$	Value 1,965,258 1,965,258 Fair	\$	OTTI OTTI
 a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets 	Cost 2,337,013 2,337,013	\$ \$ Dece	Carrying Value 1,542,651 1,542,651 ember 31, 201	\$	Value 1,965,258 1,965,258	\$	OTTI
a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities \$	Cost 2,337,013 2,337,013 Actual	\$ \$ Dece	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying	\$	Value 1,965,258 1,965,258 Fair	\$	OTTI OTTI
a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities b. Commercial mortgage-backed securities	Cost 2,337,013 2,337,013 Actual Cost	\$ S	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying Value	\$ \$	Value 1,965,258 1,965,258 Fair Value	\$ \$ Dec	OTTI OTTI Year Ended cember 31, 2015 OTTI
a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations	Cost 2,337,013 2,337,013 Actual Cost	\$ S	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying Value	\$ \$	Value 1,965,258 1,965,258 Fair Value	\$ \$ Dec	OTTI OTTI Year Ended cember 31, 2015 OTTI
a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities	Cost 2,337,013 2,337,013 Actual Cost	\$ S	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying Value	\$ \$	Value 1,965,258 1,965,258 Fair Value	\$ \$ Dec	OTTI OTTI Year Ended cember 31, 2015 OTTI
a. Residential mortgage-backed securities \$ b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary	Cost 2,337,013 2,337,013 Actual Cost	\$ S	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying Value	\$ \$	Value 1,965,258 1,965,258 Fair Value	\$ \$ Dec	OTTI OTTI Year Ended cember 31, 2015 OTTI
a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities	Cost 2,337,013 2,337,013 Actual Cost	\$ S	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying Value	\$ \$	Value 1,965,258 1,965,258 Fair Value	\$ \$ Dec	OTTI OTTI Year Ended cember 31, 2015 OTTI
a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates f. Other assets g. Total Subprime: a. Residential mortgage-backed securities b. Commercial mortgage-backed securities c. Collateralized debt obligations d. Structured securities e. Equity investments in subsidiary and controlled affiliates	Cost 2,337,013 2,337,013 Actual Cost	\$ S	Carrying Value 1,542,651 1,542,651 ember 31, 201 Carrying Value	\$ \$	Value 1,965,258 1,965,258 Fair Value	\$ \$ Dec	OTTI OTTI Year Ended cember 31, 2015 OTTI

- (4) The Company has no underwriting exposure to subprime mortgage risk through Mortgage Guaranty or Financial Guaranty insurance coverage.
- g. Retained asset accounts No change

Note 22 - Events Subsequent

Management of the Company has evaluated subsequent events through May 11, 2016, 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 - No change

Note 25 - Change in Incurred Losses and Loss Adjustment Expenses

There was no increase to reserves in 2016 for incurred losses and loss adjustment expenses attributable to insured events of prior years, which were considered corrections of prior year errors.

Note 26 - Intercompany Pooling Arrangements - No change

Note 27 - Structured Settlements - No change

Note 28 - Health Care Receivables - No change

Note 29 - Participating Policies - No change

Note 30 - Premium Deficiency Reserves - No change

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

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

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

Note 34 - Separate Accounts - No change

Note 35 - Loss/Claim Adjustment Expenses - No change

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

1.1 Did the reporting entity experience any material transactions requiring the filing of Disclosure of Material Transactions with the State of Domicile, as required by the Model Act?							Yes [] No [X]]
1.2	If yes, has the report been filed with the domiciliary state?						Yes [] No []
2.1	Has any change been made during the year of this statement in the reporting entity?	charter, by-laws, a	rticles of incorporation,	or deed of settleme	nt 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?		of two or more affiliated				Yes [X] No []]
3.2	Have there been any substantial changes in the organizational chart	t since the prior qua	arter end?				Yes [] No [X]]
3.3	If the response to 3.2 is yes, provide a brief description of those char	inges.							
4.1	Has the reporting entity been a party to a merger or consolidation do	luring the period co	vered by this statemen	t?			Yes [] No [X]]
4.2	If yes, provide the name of the entity, NAIC Company Code, and staceased to exist as a result of the merger or consolidation.	ate of domicile (use	two letter state abbrev	riation) for any entity	that has				
	Name of Entity		2 NAIC Company Code	3 State of Domicile	_				
5.	If the reporting entity is subject to a management agreement, includi in-fact, or similar agreement, have there been any significant chang If yes, attach an explanation.					Yes [] No [X] N/A []
6.1 State as of what date the latest financial examination of the reporting entity was made or is being made.								31/2014	
6.2	State the as of date that the latest financial examination report became available from either the state of domicile or the reporting entity. This date should be the date of the examined balance sheet and not the date the report was completed or released.							31/2009	
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).	the examination rep	oort and not the date of	the examination (ba	lance sh	eet	12/2	20/2010	
6.4	By what department or departments?								
6.5	State of Connecticut Insurance Department. Have all financial statement adjustments within the latest financial extatement filed with Departments?					Yes [X] No [] N/A []
6.6	Have all of the recommendations within the latest financial examinat	tion report been co	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	rve Board?				Yes [] No [X]]
8.2	If response to 8.1 is yes, please identify the name of the bank holding	ng 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)	the Office of the Co	omptroller of the Curre	ncy (OCC), the Fede	eral Depo				
	11		2	3_	4	5	6	ı	
	Affiliate Name Babson Capital Securities, LLC		cation (City, State)		OCC	FDIC	SEC	ı	
	Baring Asset Management (Asia) Limited	Hong Kong					YES	•	
	Baring International Investment Limited						YES	ı	
	MML Distributors, LLC	Enfield, CT					YES	i	
	MML Investment Advisers, LLC	Entield, CT					YES	i	
	MML Investors Services, LLC MML Strategic Distributors, LLC						YES YES	i	
	MMLISI Financial Alliances, LLC						YES	i	
	OppenheimerFunds Distributor, Inc.						YES	i	
	Society of Grownups, LLC						YES	i	
	The MassMutual Trust Company, FSB							i	
	•			1					

GENERAL INTERROGATORIES

9.1	Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?		Yes [X]	No []
	relationships; (b) Full, fair, accurate, timely and understandable disclosure in the periodic reports required to be filed by the reporting	na entity:		
	(c) Compliance with applicable governmental laws, rules and regulations;	ig onary,		
	(d) The prompt internal reporting of violations to an appropriate person or persons identified in the code; and			
	(e) Accountability for adherence to the code.			
9.11	If the response to 9.1 is No, please explain:			
9.2	Has the code of ethics for senior managers been amended?		Yes []	No [X]
9.21	If the response to 9.2 is Yes, provide information related to amendment(s).			
9.3	Have any provisions of the code of ethics been waived for any of the specified officers?		Yes []	No [X]
9.31	If the response to 9.3 is Yes, provide the nature of any waiver(s).			
	FINANCIAL			
10.1	Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement? If yes, indicate any amounts receivable from parent included in the Page 2 amount:			
10.2	ii yes, indicate any amounts receivable from parent included in the Fage 2 amount.	Φ		0
	INVESTMENT			
11.1	Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or oth use by another person? (Exclude securities under securities lending agreements.)	erwise made avaliable for	Yes []	No [X]
11.2	If yes, give full and complete information relating thereto:			
12.	Amount of real estate and mortgages held in other invested assets in Schedule BA:			
13.	Amount of real estate and mortgages held in short-term investments:			
14.1 14.2			Yes [X]	No []
		1		2
		Prior Year-End		t Quarter
		Book/Adjusted Carrying Value		Adjusted ng Value
14.21	Bonds	1 642 655		1.624.851
	Preferred Stock			
14.23	Common Stock)		
14.24	Short-Term Investments	S		
14.25	Mortgage Loans on Real Estate)	\$	
14.26	All Other	S	\$	
14.27	Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)	51,642,655	\$	1,624,851
14.28	Total Investment in Parent included in Lines 14.21 to 14.26 above	S	\$	
15.1				No [X]
15.2	If yes, has a comprehensive description of the hedging program been made available to the domiciliary state?		Yes []	No []

GENERAL INTERROGATORIES

16. For the reporting entity's security lending program, state the amount of the following as of the current statement date:

18.2 If no, list exceptions:

	16.1 Total fair value	of reinvested collateral assets reporte	ed on Schedule DL	L, Parts 1 and 2.	\$	
	16.2 Total book adjus	sted/carrying value of reinvested coll	ateral assets repor	rted on Schedule DL, Parts 1 and 2	\$	
				·		
17. 17.1	offices, vaults or safety deposit boxe custodial agreement with a qualified Outsourcing of Critical Functions, Cu	s, were all stocks, bonds and other s bank or trust company in accordanc ustodial or Safekeeping Agreements	securities, owned the ce with Section 1, I of the NAIC Finan	nvestments held physically in the reporting hroughout the current year held pursuant till - General Examination Considerations, Ficial Condition Examiners Handbook?iners Handbook, complete the following:	o a F.]
	1			2		
	Name of Cu			Custodian Address		
	Citibank, N.A.		333 West 34th St	reet New York, NY 10001		
17.2	For all agreements that do not comply location and a complete explanation		Financial Condition	Examiners Handbook, provide the name,	,	
	1 Name(s)	2 Location(s)		3 Complete Explanation(s)		
17.3 17.4	Have there been any changes, includ If yes, give full information relating the		s) identified in 17.1	during the current quarter?	Yes [] No [X]]
	1	2	3	4		
	Old Custodian	New Custodian	Date of C	hange Reason		
17.5	Identify all investment advisors, broke handle securities and have authority			lers that have access to the investment ac	counts,	
	1	2		3		
	Central Registration Depository	Name(s)	1500	Address		
	106006 Ba	abson Capital Management, LLC	1500	Main Street, Springfield, MA 01115		
18 1	Have all the filing requirements of the	Purposes and Procedures Manual of	of the NAIC Investo	nent Analysis Office been followed?	Yes [X] No [1

GENERAL INTERROGATORIES

PART 2 - LIFE & HEALTH

1.	Report the statement value of mortgage loans at the end of this reporting period for the following categories:	1 Amount
	1.1 Long-Term Mortgages In Good Standing	Amount
	1.11 Farm Mortgages	<u> </u>
	1.12 Residential Mortgages	5,396,130
	1.13 Commercial Mortgages	<u> </u>
	1.14 Total Mortgages in Good Standing	5,396,130
	1.2 Long-Term Mortgages In Good Standing with Restructured Terms	
	1.21 Total Mortgages in Good Standing with Restructured Terms	3
	1.3 Long-Term Mortgage Loans Upon which Interest is Overdue more than Three Months	
	1.31 Farm Mortgages	<u> </u>
	1.32 Residential Mortgages	<u> </u>
	1.33 Commercial Mortgages	<u> </u>
	1.34 Total Mortgages with Interest Overdue more than Three Months	<u> </u>
	4.4 Long Town Mades as Long to December of Foundation	
	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	<u>i</u>
.5	Total Mortgage Loans (Lines 1.14 + 1.21 + 1.34 + 1.44) (Page 2, Column 3, Lines 3.1 + 3.2)	5,396,130
.6	Long-Term Mortgages Foreclosed, Properties Transferred to Real Estate in Current Quarter	
	1.61 Farm Mortgages	<u> </u>
	1.62 Residential Mortgages	3
	1.63 Commercial Mortgages	3
	1.64 Total Mortgages Foreclosed and Transferred to Real Estate	<u> </u>
2.	Operating Percentages:	
	2.1 A&H loss percent	%
	2.2 A&H cost containment percent	%
	2.3 A&H expense percent excluding cost containment expenses	%
3.1	Do you act as a custodian for health savings accounts?	Yes [] No [X]
3.2	If yes, please provide the amount of custodial funds held as of the reporting date	s
3.3	Do you act as an administrator for health savings accounts?	. Yes [] No [X]

3.4 If yes, please provide the balance of the funds administered as of the reporting date\$

SCHEDULE S - CEDED REINSURANCE

			Snowing .	All New Reinsurance Treaties - Current Year to Da	ate		
1	2	3	4	5 6	7	8	9
							Effective
						Certified	Date of
NAIC				Ty e of		Reinsurer	Certified
Company	ID	Effective		D mick ry Reins		Rating	Reinsurer
Company Code	Number	Date	Name of Reinsurer	Ju sdicti v C ed	Type of Reinsurer	(1 through 6)	Rating

SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

Current Year To Date - Allocated by States and Territories

		diront rour	To Date - Alloca	aica by Ciaics a	Direct Bus	iness Only		
		1	Life Co	ontracts	4	5	6	7
1			2	3	Accident and			
					Health Insurance Premiums,			
					Including Policy		Total	
		Active	Life Insurance	Annuity	Including Policy, Membership	Other	Columns	Deposit-Type
	States, Etc.	Status	Premiums	Considerations	and Other Fees	Considerations	2 Through 5	Contracts
1.	AlabamaAL	LL	57,440				57,440	
2.	Alaska AK	L	4,260				4,260	
3.	ArizonaAZ	L	228,204				228,204	
4.	Arkansas AR	L	15,307				15,307	
5.	California CA	L	1, 140,023				1,140,023	
6.	Colorado CO	I	192,461				192,461	
7.	Connecticut	I	173,755				173,755	
8.	Delaware DE	I	20,179				20,179	
9.	District of Columbia DC	ı	36,775				36,775	
10.	FloridaFL	I	655,548				655,548	
11.	Georgia	I	186,031				186,031	
	Hawaii HI	L	55,802				55,802	
12.			,				,	
13.	IdahoID	L	15,407				15,407	
14.	Illinois IL	<u>-</u>	356,962				356,962	
15.	Indiana IN	<u>L</u>	186,681				186,681	
16.	lowa IA	L	149, 107	450			149,557	
17.	Kansas KS	L	100,506				100,506	
18.	Kentucky KY	L	80,326				80,326	
19.	Louisiana LA	ļL	85,486	ļ	ļ		85,486	
20.	Maine ME	L	46,832		ļ		46,832	
21.	Maryland MD	L	277,403	315			277,718	
22.	Massachusetts MA	LL	215,207				215,207	
23.	Michigan MI	LL	344,755	1,350	ļ		346 , 105	
24.	Minnesota MN	LL	109, 186		ļ		109, 186	
25.	Mississippi MS	LL	56,261				56,261	
26.	Missouri MO	LL	143,690				143,690	
27.	Montana MT	L	85,962				85,962	
28.	Nebraska NE	I	113,084	450			113,534	
29.	Nevada	ı	84,087				84,087	
30.	New Hampshire	ı	46,798				46,798	
31.	New Jersey	ı	424,849				424.849	
32.	New Mexico NM	L	19,033				19.033	
	New York	N						
33.	North Carolina	N	46,448				46,448	
34.		<u>-</u>	294,544				294,544	
35.	North DakotaND	<u>L</u>	1,271				1,271	
36.	Ohio OH	L	302,213				302,213	
37.	Oklahoma OK	L	225,494				225,494	
38.	Oregon OR	L	106,686				106,686	
39.	Pennsylvania PA	L	498,843				498,843	
40.	Rhode IslandRI	L	45, 148				45 , 148	
41.	South Carolina SC	L	180,239				180,239	
42.	South Dakota	L	11,385				11,385	
43.	Tennessee TN	L	168,530				168,530	
44.	Texas TX	I	820,535				820,535	
45.	Utah	ı	85,670				85,670	
46.	Vermont	ı	28,806	300			29,106	
47.	VirginiaVA	L	442,396				442,396	
48.	Washington	L	184 . 181				184 , 181	
	West Virginia WV		,				· · · · · · · · · · · · · · · · · · ·	
49.	Wisconsin WI		47,753				47,753	
50.			98,576				98,576	
51.	Wyoming	<u>L</u>	4,498				4,498	
52.	American Samoa	N						
53.	Guam GU	N						
1	Puerto RicoPR	N			ļ		ļ	
	U.S. Virgin IslandsVI	N	ļ	ļ	ļ		ļ	
	Northern Mariana Islands MP	N	ļ	ļ	ļ		ļ	
57.	Canada CAN	N						
58.	Aggregate Other Aliens OT	XXX	57,339				57,339	
59.	Subtotal	(a)50	9,357,962	2,865	ļ		9,360,827	
90.	Reporting entity contributions for employee benefits	;	İ	İ				
1	plans	XXX						
91.	Dividends or refunds applied to purchase paid-up							
1	additions and annuities	XXX	ļ	 	ļ		ļ	
92.	Dividends or refunds applied to shorten endowmen							
l	or premium paying period.	XXX						
93.	Premium or annuity considerations waived under		2					
	disability or other contract provisions.	XXX	81,507	 			81,507	
94.	Aggregate or other amounts not allocable by State	XXX	 	 	 		 	ļ
95.	Totals (Direct Business)	XXX	9,439,469	2,865	ļ		9,442,334	
96.	Plus Reinsurance Assumed	XXX			ļ		 	
97	Totals (All Business)	XXX	9,439,469	2,865	ļ		9,442,334	
98.	Less Reinsurance Ceded	XXX	4,934,471		ļ		4,934,471	
99.	Totals (All Business) less Reinsurance Ceded	XXX	4,504,998	2,865			4,507,863	
	DETAILS OF WRITE-INS						<u></u>	
58001	ZZZ Other Alien	xxx	57,339		L		57,339	
		XXX						
		XXX		T	T			
	Summary of remaining write-ins for Line 58 from							
JU330.	overflow page	XXX						
58000	Totals (Lines 58001 through 58003 plus				<u> </u>		<u> </u>	
J0333.	58998)(Line 58 above)	XXX	57,339				57,339	
9401.	36996)(Line 36 above)	XXX	31,009				31,009	
		XXX					†	
9402.							<u> </u>	
9403.	Cummany of remaining with the fault of the	XXX					 	
9498.	Summary of remaining write-ins for Line 94 from	VVV						
0.400	overflow page	XXX			·		·	
9499.	Totals (Lines 9401 through 9403 plus 9498)(Line	VVV						
	94 above)	XXX	<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u>. </u>
(I) Lioon	sed or Chartered - Licensed Insurance Carrier or Do	niciled RRG: (F	a Registered - Non	-anmiciled RRGe: (us constitled - Onali	TIPM OF ACCEPTION I	zeineurer: (E) Eligik	no Poportina

⁽a) Insert the number of L responses except for Canada and Other Alien.

PART 1 – ORGANIZATIONAL CHART

04-1590850

Massachusetts

	Federal Tax ID	NAIC Co Code	State of Domicile
MASSACHUSETTS MUTUAL LIFE INSURANCE COMPANY	04-1590850	65935	Massachusetts
Direct & Indirect Owned Subsidiaries:			
C.M. Life Insurance Company	06-1041383	93432	Connecticut
MML Bay State Life Insurance Company	43-0581430	70416	Connecticut
CML Mezzanine Investor, LLC	06-1041383		Delaware
CML Mezzanine Investor L, LLC	06-1041383		Delaware
CML Mezzanine Investor III, LLC	06-1041383		Delaware
CML Re Finance LLC	06-1041383		Delaware
CML Special Situations Investor LLC	None		Delaware
MML Mezzanine İnvestor 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
Fern Street LLC	37-1732913		Delaware
MassMutual Retirement Services, LLC	04-1590850		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Mezzanine Investor, LLC	04-1590850		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MMC Equipment Finance LLC	04-1590850		Delaware
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2009-A	27-1379258		Delaware
MMAF Equipment Finance LLC 2011-A	45-2589019		Delaware
MML Private Placement Investment Company I, LLC	04-1590850		Delaware
Pioneers Gate LLC	45-2738137		Delaware
MSC Holding Company, LLC	45-4376777		Delaware
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
MassMutual Holding LLC	04-2854319		Delaware
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
	04.1500050		3.6 1

^{*}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.

MML Investors Services, LLC

PART 1 – ORGANIZATIONAL CHART

	Federal Tax ID	NAIC Co Code	State of Domicile
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
MassMutual International LLC	04-3313782		Delaware
MassMutual Asia Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Asia Investors Ltd.	None		Hong Kong, Special Administrative Region of China
MassMutual Guardian Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Insurance Consultants Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Services Limited	None		Hong Kong, Special Administrative Region of China
MassMutual Trustees Limited	None		Hong Kong, Special Administrative Region of China
Protective Capital (International) Limited	98-0610331		Hong Kong, Special Administrative Region of China
MassMutual Life Insurance Company	None		Japan
MassMutual Internacional (Chile) SpA	98-1033127		Chile
MM Asset Management Holding LLC	45-4000072		Delaware
Babson Capital Management LLC	51-0504477		Delaware
Babson Capital Finance LLC	80-0875475		Delaware
BCF Europe Funding Limited	None		Ireland
BCF Senior Funding I LLC	None		Delaware
Babson Capital Securities LLC	04-3238351		Delaware
Babson Capital Guernsey Limited	98-0437588		Guernsey
Babson Capital Management (UK) Limited	98-0432153		United Kingdom
Babson 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
Babson Capital Global Advisors Limited	98-1012393		United Kingdom
BCGSS 2 GP LLP	None		United Kingdom
Babson European Direct Lending 1 GP LLP	None		United Kingdom
Babson Capital Management (Japan) KK	None		Japan
Cornerstone Real Estate Advisers LLC	55-0878489		Delaware
Cornerstone Real Estate Advisers Inc.	04-3238351		California
Cornerstone Real Estate Advisers Japan K.K.	None		Japan Delaware
Cornerstone Real Estate UK Holdings Limited CREAE AIFM LLP	None		
CREAE AIRWI LLP Cornerstone Real Estate Advisers (Continental Europe) Limited	None 98-0654401		United Kingdom United Kingdom
Cornerstone Real Estate Advisers Europe LLP	98-0654388		United Kingdom
Cornerstone Real Estate Advisers Europe ELP Cornerstone Real Estate Advisers Europe Finance LLP	98-0654412		United Kingdom United Kingdom
Cornerstone Real Estate Advisers GmbH	98-1194368		Germany
Babson Capital Management (Australia) Holding Company Pty Ltd.	None		Australia
Babson Capital Management (Australia) Holding Company Fty Ltd. Babson Capital Management (Australia) Pty Ltd.	98-0457456		Australia
Dabbon Capital Management (Australia) Ltg.	70 UTJ TJU		Auguana

^{*}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
Babson Capital Cornerstone Asia Limited	None	Hong Kong, Special Administrative Region of China
Wood Creek Capital Management LLC	04-1590850	Delaware
Wood Creek Index Company, LLC	26-3115362	Delaware
Milestone Acquisition Holding, LLC.	47-3055009	Delaware
Alchemy Copyrights, LLC.	47-2642354	Delaware
Red Lake Ventures, LLC	46-5460309	Delaware
Teaktree Acquisition, LLC	None	Delaware
U.S. Buyer Broadcasting, LLC	47-1855920	Delaware
Tamiami Citrus, LLC	None	Delaware
Solar Acquisition Holding, LLC	None	Delaware
U.S. Pharmaceuticals Holdings II, LLC	47-5436800	Delaware
Sweet Tree Holdings 1, LLC	46-3123110	Delaware
VGS Acquisition Holding, LLC	None	Delaware
U.S. WIG Holdings, LP	46-1500495	Delaware
WC Aircraft Holdings US II, LLC	46-3378584	Delaware
Wood Creek Aircraft Holding I, LP	None	Cayman Islands
Babson Capital Floating Rate Income Fund Management, LLC	04-1590850	Delaware
Babson Capital Core Fixed Income Management LLC	27-3523916	Delaware
Babson Capital Total Return Management LLC	27-3524203	Delaware
Babson CLO Investment Partners GP, LLC	None	Delaware
Babson Global Loan Feeder Management, LLC	None	Delaware
Babson TERO Management LLC	None	Delaware
Babson Investment Grade CLO Debt Management LLC	None	Delaware
Benton Street Advisors, Inc.	98-0536233	Cayman Islands
SDCOS Management LLC	04-1590850	Delaware
Great Lakes III GP, LLC	04-1590850	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
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

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	Federal Tax ID	NAIC Co Code	State of Domicile
OFI Global Trust Company	13-3459790		New York
Harbour View Asset Management Corporation	22-2697140		New York
Trinity Investment Management Corporation	25-1951632		Pennsylvania
OFI SteelPath, Inc.	84-1128397		Delaware
Shareholder Services, Inc.	84-1066811		Colorado
VTL Associates, LLC	None		Pennsylvania
Index Management Solutions, LLC	None		Pennsylvania
OFI Global Asset Management, Inc.	84-0765063		Delaware
OFI Private Investments Inc.	91-2036414		New York
Tremont Group Holdings, Inc.	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 Baring Holding LLC	04-1590850		Delaware
Baring North America LLC	98-0241935		Massachusetts
MassMutual Holdings (Bermuda) Limited	None		Bermuda
Baring Asset Management Limited	98-0241935		United Kingdom
Baring International Investment Limited	98-0457328		United Kingdom
Baring International Investment Management Holdings	98-0457587		United Kingdom
Baring Asset Management UK Holdings Limited	98-0457576		United Kingdom
Baring Asset Management GmbH	98-0465031		Germany
Baring Asset Management (Asia) Holdings Limited	98-0524271		Hong Kong, Special Administrative Region of China
Baring International Fund Managers (Bermuda) Limited	98-0457465		Bermuda
Baring Asset Management (Asia) Limited	98-0457463		Hong Kong, Special Administrative Region of China
Baring Asset Management Korea Limited	None		Korea
Baring Asset Management (Japan) Limited	98-0236449		Japan
Baring Asset Management (Australia) Pty Limited	98-0457456		Australia
Baring International Fund Managers (Ireland) Limited	98-0524272		Ireland
Baring Asset Management Switzerland Sarl	None		Switzerland
Baring SICE (Taiwan) Limited	98-0457707		Taiwan ROC
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
Baring Investments (UK) Limited	None		United Kingdom
First Mercantile Trust Company	62-0951563		Tennessee
Haven Life Insurance Agency, LLC	46-2252944		Delaware
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts

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	Federal Tax ID	NAIC Co Code	State of Domicile
Society of Grownups, LLC	47-1466022		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
MML Re Finance LLC	04-1590850		Delaware
Other Affiliates & Funds:			
Invicta Advisors LLC	56-2574604		Delaware
Jefferies Finance LLC*	27-0105644		Delaware
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
100 w. 3 rd Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	04-1590850		Delaware
300 South Tryon LLC	04-1590850		Delaware
54 West Capital LLC	20-3887968		Delaware
Alexandria Towers Investors LLC	16-1720387		Delaware
Almack Mezzanine Fund I LP*	None		United Kingdom
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Almack Mezzanine Fund III LP*	None		United Kingdom
Babson Capital Emerging Markets Corporate Bond Fund	None		Ireland
Babson Capital Emerging Markets Local Debt Fund	None		Ireland
Babson Capital European High Yield Bond Fund	None		Ireland
Babson Capital Global Special Situations Credit Fund 1	None		Ireland
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		Delaware
Babson Capital High Yield LLC*	55-0886109		Delaware
Babson Capital Loan Strategies Fund, L.P.*	37-1506417		Delaware
Babson CLO Ltd. 2007-I	None		Cayman Islands
Babson CLO Ltd. 2011-I	None None		Cayman Islands
Babson CLO Ltd. 2012-I Babson CLO Ltd. 2012-II	None		Cayman Islands Cayman Islands
Babson CLO Ltd. 2012-11 Babson CLO Ltd. 2013-I	None		Cayman Islands
Babson CLO Ltd. 2013-1	98-1128827		Cayman Islands
Babson CLO Ltd. 2013-11 Babson CLO Ltd. 2014-I	None		Cayman Islands
Babson CLO Ltd. 2014-1 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. 2015-11 Babson CLO Ltd. 2016-I	None		Cayman Islands
Babson Euro CLO 2014-I BV	None		Netherlands
Babson Euro CLO 2014-1 BV	None		Netherlands
Babson Euro CLO 2015-I BV	None		Netherlands
Babson Capital Global Credit Fund (Lux) SCSp, SIACV-SIF	None		Luxembourg

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	Federal Tax ID	NAIC Co Code	State of Domicile
Babson Investment Grade CLO Debt Fund LP	47-3971963		Delaware
Babson Mezzanine Realty Investors I*	20-4570515		Delaware
Babson Mezzanine Realty Investors II	24-1446970		Delaware
Baring Emerging Market Corp Debt Fund	None		Ireland
Baring Focused EAFE Equity Fund	11-3789446		Delaware
Baring Global Dynamic Asset Allocation Fund	30-0607379		Delaware
Baring International Small Cap Equity Fund	26-4142796		Delaware
Benton Street Partners I, L.P.*	98-0536233		Cayman Islands
Benton Street Partners II, L.P.*	98-0536199		Cayman Islands
Connecticut Valley Structured Credit CDO II, Ltd.	None		Cayman Islands
Connecticut Valley Structured Credit CDO III, Ltd.	None		Cayman Islands
Cambridge Hotel, LLC	06-1614196		Delaware
Cheyenne Mountain Resort LLC	04-1590850		Delaware
Cornerstone Core Fund SCSCp	None		Luxembourg
Cornerstone Core Mortgage Venture I LP	27-1701622		Delaware
Cornerstone Enhanced Mortgage Fund I LP	45-3751572		Delaware
Cornerstone Global Real Estate LP*	20-8730751		Delaware
Cornerstone High Yield Venture LP	36-4770946		Delaware
Cornerstone Hotel Income and Equity Fund II LP	26-1828760		Delaware
Cornerstone/LAZ Parking Fund LP	46-5437441		Delaware
Cornerstone Partners IV LLC	71-0908077		Delaware
Cornerstone Patriot Fund LP	20-5578089		Delaware
Cornerstone Real Estate Fund VIII LP	27-0547156		Delaware
Cornerstone Real Estate Fund X LP	46-5432619		Delaware
Duchess VI CLO B.V.	None		United Kingdom
Duchess VII CLO B.V.	None		United Kingdom
E-Wise Land Venture LLC	20-3887968		Delaware
Gateway Mezzanine Partners I, L.P.*	80-0691253		Delaware
Gateway Mezzanine Partners II LP*	90-0991195		Delaware
Great Lakes III, L.P.	37-1708623		Delaware
Kazwell Realty Partners LLC	20-3887968		Delaware
King Alexander LLC	45-3754085		Delaware
Marco Hotel LLC	46-4255307		Delaware
MMI/BDI Riverside Mt. Vernon LLC	26-2704765 26-3799762		Delaware Delaware
MML O'Hare Hotel LLC	20-3887968		Delaware Delaware
Oakley Grove Development LLC Old Pasco Properties LLC	20-3887968		Delaware Delaware
Reston Arboretum LLC	75-2901061		Delaware Delaware
Riva Portland LLC	75-2901061 30-0713071		Delaware Delaware
Rockall CLO B.V.			
	None		United Kingdom
Rockville Town Center LLC	54-2055778		Virginia

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Federal Tax ID

NAIC Co Code State of Domicile

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Sapphire Valley CDO I, Ltd.	None		Cayman Islands
SDCOS L.P.	74-3182902		Delaware
Seattle 1415 Hotel Owner LLC	46-5491311		Delaware
Sedona TFMP Land LLC	04-1590850		Delaware
Somerset Special Opportunities Fund L.P.*	20-8856877		Delaware
South Myrtle Monrovia MM LLC	04-1590850		Delaware
South Pasco Properties LLC	20-3887968		Delaware
Tower Square Capital Partners, L.P.*	04-3722906		Delaware
Tower Square Capital Partners II, L.P.*	30-0336246		Delaware
Tower Square Capital Partners II-A, L.P.*	32-0160190		Delaware
Tower Square Capital Partners III, L.P.*	41-2280127		Delaware
Tower Square Capital Partners IIIA, L.P.	41-2280129		Delaware
Tower Square Capital Partners IV-A, L.P.	80-0920367		Delaware
West 46 th Street Hotel LLC	05-1590850		Delaware
Whately CDO, Ltd.	None		Cayman Islands
Wood Creek Multi Asset Fund, L.P.	20-4981369		Delaware
Babson Affiliates & Funds:			
Babson Capital Emerging Markets Debt Blended Total Return Fund	None		Ireland
Babson Capital Emerging Markets Debt Short Duration Fund	None		Ireland
Babson Capital Emerging Markets Sovereign Debt Fund	None		Ireland
Babson Capital Floating Rate Income Fund, L.P.	27-3330830		Delaware
Babson Capital Global Investment Funds plc	None		Ireland
Babson Capital Global Investment Fund 2 plc	None		Ireland
Babson Capital Global Investment Grade Corporate Plus Fund	None		Ireland
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands
Babson Capital Senior CLO Debt Fund	None		Ireland
Babson Emerging Markets Debt Blended Total Return Fund	47-3758432		Massachusetts
Babson Emerging Markets Local Currency Debt Fund	47-3774453		Massachusetts
Babson Global High Yield Bond Fund	47-3790192		Massachusetts
Babson Global Income Opportunities Credit Fund	46-3119764		Massachusetts
Babson Total Return Bond Fund	47-3734770		Massachusetts
Babson US High Yield Fund	47-3801860		Massachusetts
Gateway Mezzanine Partners I Trust	None		Australia
Great Lakes II LLC*	71-1018134		Delaware
Great Lakes LLC*	56-2505390		Delaware
Intermodal Holding II LLC	46-2344300		Delaware
Somerset Special Opportunities Master Fund LP	None		Cayman Islands
Wood Creek Venture Fund LLC	04-1590850		Delaware
Baring Affiliates & Funds:	N		H V
Baring Greater China Equity Fund	None		Hong Kong

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	Federal Tax ID N	NAIC Co Code State of Domicile
Cornerstone Affiliates & Funds:		
12-18 West 55th Street Predevelopment, LLC*	20-2548283	Delaware
50 Liberty LLC*	36-4823011	Delaware
One Harbor Shore LLC*	80-0948028	Delaware
2 Harbor Shore Member LLC*	46-4803557	Delaware
21 West 86 LLC*	45-5257904	Delaware
AT Mid-Atlantic Office Portfolio LLC*	45-2779931	Delaware
CHC/RFP VI Core LLC	04-1590850	Delaware
Cornerstone Fort Pierce Development LLC*	56-2630592	Delaware
Cornerstone Permanent Mortgage Fund	45-2632610	Delaware
CREA 330 Third LLC*	46-5001122	Delaware
CREA FMF Nashville LLC	46-4367364	Delaware
CREA/LYON West Gateway, LLC*	26-2399532	Delaware
CREA Madison Member LLC	81-0890084	Delaware
CREA/PPC Venture LLC*	20-0348173	Delaware
Fallon Cornerstone One MPD LLC*	26-1611591	Delaware
Farringdon London Holdings LLC*	46-3880526	Delaware
Fan Pier Development LLC*	20-3347091	Delaware
Infinity SCD Ltd.	None	United Kingdom
Johnston Groves LLC	20-4819358	Delaware
MMI/Hines Harrison LLC*	46-5347643	Delaware
MM Woodfield Martingale LLC*	46-4077059	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
Twenty Two Liberty LLC*	35-2484550	Massachusetts
UK LIW Manager LLC	45-4606547	Delaware
UK LIW Member LLC	45-4606547	Delaware
Washington Gateway Apartments Venture LLC*	45-5401109	Delaware
Waterford Development Associates	20-2970495	Delaware
Waterloo London Holdings LLC	47-1993493	Delaware
WeHo Domain LLC*	46-3122029	Delaware
Willowwod Lakeside Master LLC	81-1552222	Delaware
Ygnatio Valley Funding	20-5481477	Delaware
MassMutual Premier Funds:		
MassMutual Barings Dynamic Allocation Fund	45-3168892	Massachusetts
MassMutual Premier Focused International Fund	02-0754273	Massachusetts
MassMutual Premier Main Street Fund	51-0529328	Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251	Massachusetts
MassMutual Premier Value Fund	04-3277550	Massachusetts

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	Federal Tax ID	NAIC Co Code	State of Domicile
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
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:			
Oppenheimer Global High Yield Fund	45-3417590		Delaware
Oppenheimer Global Multi-Asset Growth Fund	47-3676235		Delaware
Oppenheimer Global Multi-Asset Income Fund	47-1714929		Delaware
Oppenheimer Global Real Estate Fund*	46-1604428		Delaware
Oppenheimer Real Estate Fund	22-3849391		Massachusetts
Oppenheimer Small Cap Value Fund	47-4835759		Delaware
Oppenheimer SteelPath Panoramic Fund	47-3987967		Delaware

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

	PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
											Type	If		
											of Control	Control		
											(Ownership,	is		
						Name of Securities			Relation-		Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
Code	Group Name	Code	Number	กออบ	CIN	international)		lion	⊏⊓ility	Massachusetts Mutual Life Insurance	Other)	lage	Entity(les)/Ferson(s)	
0.405		05005	04 4500050	0040000	0000005000		Massachusetts Mutual Life Insurance	MA	p			100 000	188 10	
0435	Massachusetts Mut Life Ins Co	65935	04-1590850 .	3848388	. 0000225602		Company (MMLIC)	MA	UIP	Company	Ownership	100.000	MMLIC	
2425										Massachusetts Mutual Life Insurance				
	CM Life Ins Co	93432	06-1041383 .				C.M. Life Insurance Company	CT	UDP	Company	Ownership	100.000	MMLIC	
	MML Baystate Life Ins Co	70416	43-0581430 .		0000924777		MML Bay State Life Insurance Company	CT	RE	C.M. Life Insurance Company	Ownership	100.000	. MMLIC	
0000			06-1041383 .				CML Mezzanine Investor, LLC	DE	NI A	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			. 06-1041383				CML Mezzanine Investor L, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000		
0000			06-1041383				CML Mezzanine Investor III, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000			06-1041383				CML Re Finance LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
0000							CML Special Situations Investor LLC	DE	NI A	C.M. Life Insurance Company	Ownership	100.000	MMLIC	
							·			Massachusetts Mutual Life Insurance	·			
0000			04-1590850 .				MML Mezzanine Investor L, LLC	DE	NI A	Company	Ownership	100.000	MMLIC	
							,			Massachusetts Mutual Life Insurance	•			
0000							MML Special Situations Investor LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
							and operate of taat one invotes and			Massachusetts Mutual Life Insurance				
0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Company	Ownership	95.000	MMLIC	
0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.000	MMLIC	
0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC	
0000			41-3322313					DE	NIA		Ownership	100.000	MMLIC	
0000			20-5305426 .				Lyme Adirondack Forest Company, LLC	NY	NIA	Timberland Forest Holding LLC		100.000	MMLIC	
			20-5305426 .				Lyme Adirondack Timber Sales, Inc.			Timberland Forest Holding LLC	Ownership		MMLIC	
0000							Lyme Adirondack Timberlands I, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000		
0000							Lyme Adirondack Timberlands II, LLC	DE	NIA	Timberland Forest Holding LLC	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-1590850				Berkshire Way LLC	DE	NIA	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	NI A	C.M. Life Insurance Company	Ownership	18.600	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 04-1590850 .				MSP-SC, LLC	DE	NI A	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			27-1435692 .				Country Club Office Plaza LLC	DE	NIA	Company	Ownership	88.100	MMLIC	
0000			27-1435692				Country Club Office Plaza LLC	DE	NIA	C.M. Life Insurance Company	Ownership	11.900	MMLIC	
							-			Massachusetts Mutual Life Insurance				
0000			37-1732913				Fern Street LLC	DE	NIA	Company	0wnership	100.000		
										Massachusetts Mutual Life Insurance				
0000		1	04-1590850				MassMutual Retirement Services, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				-
0000			04-3356880		0000943903		MML Distributors LLC	MA	NIA	Company	Ownership	99.000	MMLIC	
0000			04-3356880 .		0000943903		MML Distributors LLC	MA	NIA	MassMutual Holding LLC	Ownership	1.000	MMLIC	
0000			. 04 0000000 .		0000340300		WIVE DISTITUTORS LEG		NI /\	Massachusetts Mutual Life Insurance	Owner Sirry	1.000	MML10	
0000		1					MML Investment Advisers, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000				1			mivil Hivestillett Auvisels, LLC		N I M	Massachusetts Mutual Life Insurance	Omilet SITIP	100.000	WINTE TO	-
0000			04 4500050					DE				100 000	188 10	
0000			. 04–1590850 .				MML Mezzanine Investor, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	-
		1								Massachusetts Mutual Life Insurance				
0000			. 46-3238013 .				MML Strategic Distributors, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	.
		1								Massachusetts Mutual Life Insurance				
0000			. 06-1563535 .	2881445	. 0001103653		The MassMutual Trust Company, FSB	CT	NIA	Company	Ownership	100.000	MMLIC	
		1								Massachusetts Mutual Life Insurance				
0000			04-1590850 _				MMC Equipment Finance LLC	DE	NIA	Company	Ownership	100.000		
0000			26-0073611				MassMutual Asset Finance LLC	DE	NIA	MMC Equipment Finance LLC	Ownership	99.600		
0000			26-0073611	.			MassMutual Asset Finance LLC	DE	NI A	C.M. Life Insurance Company	Ownership	0.400	MMLIC	

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											Type	If		
											of Control	Control		
											(Ownership,	is		
						Name of Securities			Relation	-	Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.Ś. or	Parent, Subsidiaries	Loca-	Reportin	g Directly Controlled by	Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
0000	1		27-1379258				MMAF Equipment Finance LLC 2009-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC	
0000			45-2589019				MMAF Equipment Finance LLC 2011-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MML1C	
							MML Private Placement Investment Company I,			Massachusetts Mutual Life Insurance	,			
0000			04-1590850				LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance		-		
0000			45-2738137				Pioneers Gate LLC	DE	NIA	Company	Ownership.	100.000	MMLIC	
										Massachusetts Mutual Life Insurance	·			
0000			45-4376777				MSC Holding Company, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			04-3341767				MassMutual Holding MSC, Inc.	MA	NIA	MSC Holding Company, LLC	Ownership	100.000	MMLIC	
							J 2 3			Massachusetts Mutual Life Insurance	,			
0000			. 04-2854319 .	2392316			MassMutual Holding LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			06-1597528				MassMutual Assignment Company	NC	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			04-1590850		0001399869		MassMutual Capital Partners LLC	DE	NIA	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	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			04-1590850		0000701059		MML Investors Services, LLC	MA	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			04-1590850				MML Insurance Agency, LLC	MA	NIA	MML Investors Services, LLC	Ownership	100.000	MMLIC	
0000			41-2011634		0001456663		MMLISI Financial Alliances, LLC	DE	NIA	MML Investors Services, LLC	Ownership	51.000	MMLIC	
0000			04-3313782				MassMutual International LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			1				MassMutual Asia Limited	HKG	IA	MassMutual International LLC	Ownership	100.000	MMLIC	
0000							MassMutual Asia Investors Ltd.	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC	
0000							MassMutual Guardian Limited	HKG	NIA	MassMutual Asia Limited	Ownership.	100.000	MMLIC	
0000							MassMutual Insurance Consultants Limited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC	
0000							MassMutual Services Limited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC	
0000							MassMutual Trustees Limited	_HKG	NIA	MassMutual Asia Limited	Ownership	80.000	MMLIC	
							Protective Capital (International) Limited				·			
0000			98-0610331				, , , , , , , , , , , , , , , , , , , ,	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	MMLIC	
0000							MassMutual Life Insurance Company	JPN	IA	MassMutual International LLC	Ownership	100.000	MMLIC	
0000			. 98-1033127 .				MassMutual Internacional (Chile) SpA	CHL	NIA	MassMutual International LLC	Ownership	100.000	MMLIC	
0000			45-4000072 .				MM Asset Management Holding LLC	DE	NIA	MassMutual Holding LLC	Ownership.	100.000	MMLIC	
0000			51-0504477 .		0000009015		Babson Capital Management LLC	DE	NIA	MassMutual Asset Management Holding LLC	Ownership	100.000	MMLIC	
0000			80-0875475				Babson Capital Finance LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000		.			.		BCF Europe Funding Limited	JRL	NIA	Babson Capital Finance LLC	Ownership	100.000	MMLIC	
0000		.			. [BCF Senior Funding LLC	DE	NIA	Babson Capital Finance LLC	Ownership	100.000	MMLIC	
0000		.	. 04-3238351 .		0000930012		Babson Capital Securities LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 98-0437588 .				Babson Capital Guernsey Limited	GGY	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 98-0432153 .				Babson Capital Mangement (UK) Limited	GBR	NIA	Babson Capital Guernsey Limited	Ownership	100.000	MMLIC	
0000							Babson GPC GP S.à.r.I	LUX	NIA	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
0000							Almack Mezzanine GP III Limited	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
0000							Almack Holding Partnership GP Limited	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
0000							Almack Mezzanine Fund Limited	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000		
0000		.			.		Almack Mezzanine Fund II Limited	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000		
0000			. 98-1012393 .		.		Babson Capital Global Advisors Limited	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
0000							BCGSS 2 GP LLP	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
0000							Babson European Direct Lending 1 GP LLP	GBR	NIA	Babson Capital Europe Limited	Ownership	100.000	MMLIC	
0000							Babson Capital Management (Japan) KK	JPN	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 55-0878489 .	3456895	. 0001379495 .		Cornerstone Real Estate Advisers LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000		
0000			. 04-3238351 .	3456895	. 0001011148		Cornerstone Real Estate Advisers Inc	CA	NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000		
1					1		Cornerstone Real Estate Advisers Japan							
0000		.					K.K	_JPN	NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC	

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						Name of Securities			Relation	-	Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting		Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
							Cornerstone Real Estate UK Holdings							
0000							Limited	DE	NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000	- MMLIC	
0000			-				CREAE AIFM LLP	GBR	NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC	
0000			00 0054404				Cornerstone Real Estate Advisers	ODD		Cornerstone Real Estate UK Holdings		100 000	188 10	
0000			. 98-0654401 .				(Continental Europe) Limited	GBR	NIA	Limited	Ownership	100.000	. MMLIC	
0000			98-0654388				Cornerstone Real Estate Advisers Europe	GBR	NIA	Cornerstone Real Estate UK Holdings Limited	O-manah i-	100.000	MMLIC	
0000			. 98-0004388 .				Cornerstone Real Estate Advisers Europe	BH	NIA	Cornerstone Real Estate UK Holdings	Ownership	. 100.000	MINIL I C	
0000			98-0654412				Finance IIP	GBR	NIA	Limited	Ownership	100.000	MMLIC	
0000			. 30-0034412 .				I IIIGIIOG LLF	חחמייי		Cornerstone Real Estate UK Holdings	Owner 2011 P			
0000			98-1194368				Cornerstone Real Estate Advisers GmbH	DEU	NIA	Limited	Ownership	100.000	MML1C	
0000							Babson Capital Management (Australia)			Limittou	omior sirry			
0000							Holding Company Pty Ltd.	AUS	NIA	Babson Capital Management LLC	Ownership.	100.000	MMLIC	
							Babson Capital Management (Australia) Pty			Babson Capital Australia Holding Company				
0000			98-0457456				Ltd.	AUS	NIA	Pty Ltd.	Ownership	100.000	MMLIC	
0000							Babson Capital Cornerstone Asia Limited	HKG	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			04-1590850				Wood Creek Capital Management LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			26-3115362 .				Wood Creek Index Company, LLC	DE	NIA	Wood Creek Capital Management LLC	Ownership	100.000		
0000			47-2642354				Alchemy Copyrights, LLC.	DE	NIA	MassMutual Holding LLC	Ownership	15.200	MMLIC	
0000			. 47-2642354 .				Alchemy Copyrights, LLC.	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
0000			. 47-3055009 .				Milestone Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership	18.300	MMLIC	
0000			47-3055009 .				Milestone Acquisition Holding, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-5460309 .				Red Lake Ventures, LLC	DE	NIA	Company	Ownership	31.500	MMLIC	
0000			46-5460309 .				Red Lake Ventures, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 46-3123110 .				Sweet Tree Holdings 1, LLC	DE	NIA	Company	Ownership	16. 100		
0000			. 46-3123110 .				Sweet Tree Holdings 1, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
0000							T	DE	NILA	Massachusetts Mutual Life Insurance	0	15.700	MMLIC	
0000							Tamiami Citurus, LLC Teaktree Acquisition, LLC	DE	NIA NIA	Company	Ownership	14.700	MMLIC	
0000							Teaktree Acquisition, LLC	DE	NIA NIA	Wood Creek Capital Management LLC	Influence	14.700	MMLIC	
0000							Teaktiee Acquisition, LLC	^{UE}		Massachusetts Mutual Life Insurance	IIII I UCIICC		WINLIO	
0000							U.S. Buyer Broadcasting, LLC	DE	NIA	Company	Ownership	12.700	MMLIC	
0000			1				U.S. Buyer Broadcasting, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence	12.700	MMLIC	
0000			46-1500495 .				U.S. WIG Holdings, LP	DE	NIA	MassMutual Holding LLC	Ownership.	11.700	MMLIC	
0000		.	46-1500495				U.S. WIG Holdings, LP	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
							,	1		Massachusetts Mutual Life Insurance				
0000			. 20-2970495 .				US Pharmaceutical Holdings II, LLC	DE	NIA	Company	Ownership	32.600	MMLIC	
0000			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
										Massachusetts Mutual Life Insurance				
0000		.					Solar Acquisition Holding, LLC	DE	NIA	Company	Ownership	39.200	MMLIC	
0000							Solar Acquisition Holding, LLC	DE	NIA	Wood Creek Capital Management LLC	Management	.		
0000							VGS Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership	42.600		
0000							VGS Acquisition Holding, LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC	
								l		Massachusetts Mutual Life Insurance		1		
0000			. 46-3378584 .				WC Aircraft Holdings US II, LLC	DE	NIA	Company	Ownership	17.900	MMLIC	
0000			46-3378584 .				WC Aircraft Holdings US II, LLC	DE	NIA	Wood Creek Capital Management LLC	Management		MMLIC	
0000								0.77		Massachusetts Mutual Life Insurance		40 100		
0000		-					Wood Creek Aircraft Holding I, LP	CYM	NIA	Company	Ownership	12. 100		
0000		.					Wood Creek Aircraft Holding I, LP	CYM	NIA	Wood Creek Capital Management LLC	Management		MMLIC	

	PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM													
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											of Control	Control		
											(Ownership,	is		
						Name of Securities			Relation-		Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
	-					,	Babson Capital Floating Rate Income Fund		Í		,			
0000			. 04-1590850 .		. 0001501011		Management, LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
							Babson Capital Core Fixed Income							
0000			27-3523916		0001503878		Management LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
							Babson Capital Total Return Management LLC							
0000			27-3524203 .		0001503879			DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000							Babson CLO Investment Partners GP, LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000							Babson Global Loan Feeder Management, LLC _	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000							Babson TERO Management LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
					1		Babson Investment Grade CLO Debt Management	:						
0000				-			LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 98-0536233 .				Benton Street Advisors, Inc.	CYM	NIA	Babson Capital Management LLC	Ownership	100.000		
0000			. 04-1590850 .				SDCOS Management LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 04-1590850 .				Great Lakes III GP, LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 04-1590850 .				Loan Strategies Management LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			. 04-1590850 .				Mezzco LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			02-0767001				Mezzco II LLC	DE	NIA	Babson Capital Management LLC	Ownership	98.400	MMLIC	
0000			41-2280126				Mezzco III LLC	DE	NIA	Babson Capital Management LLC	Ownership	99.300	MMLIC	
0000			80-0920285 .				Mezzco IV LLC	DE	NIA	Babson Capital Management LLC	Ownership	99.300		
0000			. 90-0666326 .				Mezzco Australia LLC	DE	NIA	Babson Capital Management LLC	Ownership	72.000	MMLIC	
0000							Mezzco Australia II LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
							Somerset Special Opportunities Management							
0000			. 04-1590850 .				LLC	DE	NIA	Babson Capital Management LLC	Ownership	100.000	MMLIC	
0000			84-1149206	2897101			Oppenheimer Acquisition Corp.	DE	NIA	MassMutual Asset Management Holding LLC .	Ownership	95.500	. MMLIC	
0000			13-2527171	2679183	0000820031		OppenheimerFunds, Inc.	CO	NIA	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC	
0000			13-2953455		0000276541		OppenheimerFunds Distributor, Inc	NY	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			. 84-1106295 .				Oppenheimer Real Asset Management, Inc	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			. 13-4160541	. 3458125	. 0001179479		OFI Global Institutional, Inc.	NY	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
										OFI Institutional Asset Management, Inc.				
0000			. 13-3459790	2914875			OFI Global Trust Company	NY	NIA		Ownership	100.000	MMLIC	
										OFI Institutional Asset Management, Inc.				
0000			. 22-2697140 .				HarbourView Asset Management Corporation	NY	NIA		Ownership	100.000	MMLIC	
										OFI Institutional Asset Management, Inc.				
0000			25-1951632		0000099782		Trinity Investment Management Corporation	PA	NIA		Ownership	100.000		
0000			84-1128397	-	0000857468		OFI SteelPath, Inc.	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000		
0000			. 84-1066811 .		0000276398		Shareholder Services, Inc.	CO	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000							VTL Associates , LLC	PA	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			04 0705000		0004044074		Index Management Solutions, LLC	PA	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			. 84-0765063 .		0001041674		OFI Global Asset Management, Inc.	DE	NIA	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			91-2036414		0001179480		OFI Private Investments Inc.	NY	NIA	OppenheimerFunds, Inc.	Ownership	100.000		
0000		·	62-1210532	-	0000704400		Tremont Group Holdings, Inc.	NY	NIA	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC	
0000			06-1121864	-	0000764139		Tremont Partners, LLC	CT	NIA	Tremont Group Holdings, Inc.	Ownership	100.000		
0000		[20-8215352	-			Tremont GP, LLC	DE	NIA	Tremont Group Holdings, Inc.	Ownership	100.000		
0000		I	. 90-0874510 .				Settlement Agent LLC	DE	NIA	Tremont Group Holdings, Inc.	Ownership	100.000		
0000			04 4500050				Tremont (Bermuda) Limited	BMU	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
0000			. 04-1590850 .	2363071	0000932463		MassMutual Baring Holding LLC	DE	NIA	MassMutual Asset Management Holding LLC .	Ownership.	100.000	MMLIC	
0000			. 98-0241935 .		0000932463		Baring North America LLC	MA BMU	NIA	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC	
0000			98-0241935				MassMutual Holdings (Bermuda) Limited		NIA	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC	
0000					0001500101		Baring Asset Management Limited	GBR	NIA	MassMutual Holdings (Bermuda) Limited	Ownership	100.000		
0000			98-0457328		0001568131		Baring International Investment Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC	

1		PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM													
Name of Securities Part	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Column C													If		
Part Part												of Control	Control		
Decided Control Cont												(Ownership,	is		
Angle Comp							Name of Securities			Relation-		Board,	Owner-		
Concess Conc							Exchange		Domi-	ship		Management,	ship		
Concess Conc			NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Control Cont	Group		Company	ID	Federal			Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by		Percen-	Ultimate Controlling	
December December	Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
Bit Fig. Seet Management Die Hellings Description De								Baring International Investment Management							
	0000			98-0457587 .				Holdings	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC	
Display Disp								Baring Asset Management UK Holdings			Baring International Investment				
Big Big	0000			98-0457576 .				Limited	GBR	NI A		Ownership	100.000	MMLIC	
December December											Baring Asset Management UK Holdings				
	0000			98-0465031 _					DEU	NI A		Ownership	100.000	MMLIC	
Description Description															
	0000			98-0524271					HKG	NIA		Ownership	100.000	MMLIC	
Baring Asset Paragement (Asia) Limited Mile Limited Mile Limited Mile Limited Mile Limited Mile Limited Mile Limited Mile Limited Mile M			1												
Sering Asset Naragement (Asia Linited ASia Alia Linited Asia Alia Linited Linited Asia Alia Linited Linited Linited Linited Linited Linited Linited Linited Linited	0000			98-0457465 .				(Bermuda) Limited	BMU	NI A		. Ownership	100.000	[MMLIC	
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	0000							Baring Asset Management Korea Limited	KOR	NI A		Ownership	100.000	MMLIC	
Description Description															
	0000			98-0236449 .					JPN	NIA		Ownership	100.000	MMLIC	
Barring March United First Management Vision Barring Asset Nanagement Vision Barring Nanat Visi												_			
	0000			98-0457456					AUS	NIA		Ownership	100.000	MMLIC	
												_			
	0000			98-0524272 .				(Ireland) Limited	JRL	NI A		Ownership	100.000	MMLIC	
Description Description															
Baring SIGE (Taiwan) Limited TMN NIA Limited Onership	0000							Baring Asset Management Switzerland Sarl	CHE	NIA		Ownership	100.000	MMLIC	
Description Description	0000			00 0457707				D : 010F (T :) : :	TUAL				100 000	188 10	
Section Sect	0000			98-045/70/ _				Baring SICE (laiwan) Limited	J WN	NIA		_ Uwnership	100.000	MMLIC	
Se-0457586 Se-0457586 Bar ing Fund Nanagers Limited	0000			00 0407550				D	ED4	NII A		0	100 000	188 10	
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					1100004	. 0001233004									
MassMutual International Holding ISC, Inc. MA															
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DOOD DOOD	0000		1	04-3548444				massimatual international notating woo, Ille.	МА	NΙΔ	MMI Management Corporation	Ownership	100,000	MML IC	
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	5000							occion of distillabo, LLO				Viiilot 911 p			.
	0000		1	04-1590850				MMI Mezzanine Investor II IIC	DF	NIA		Ownership	100 000	MML IC	
								The second secon							-
Massachusetts Mutual Life Insurance Ownership 100.000 MMLIC	0000			04-1590850				MMI Mezzanine Investor III IIC	DF	NIA		Ownership	100 000	MMLIC	
0000 04-1590850 04-1590850 04-1590850 000067160 04-1590850 0000067160 04-1590850 0000067160 04-1590850 0000067160 04-1590850 04-1590850 0000067160 04-1590850 0000067160 04-1590850 0000067160 04-1590850 0000067160 04-1590850															-
MML Re Finance LLC	0000		1	27-3576835				MassMutual External Benefits Group IIC	DE	NIA		Ownership	100.000	MMLIC	
0000 04-159085				1				20101110 01000 200							-
Description	0000		l	04-1590850				MML Re Finance LLC	DE	NIA		Ownership	100,000		
Massachusetts Mutual Life Insurance	0000			56-2574604				Invicta Advisors LLC	DE	NIA		Ownership	100.000	MMLIC	
0000 27-0105644 Jefferies Finance LLC DE NIA Company Ownership .45.000 MMLIC .1				1											
	0000			27-0105644				Jefferies Finance LLC	DE	NIA		Ownership	45.000	MMLIC	1
04-1590850 0000067160 MML Private Equity Fund Investor LLC															
000 0 04-1590850 0 0000067160 MML Private Equity Fund Investor LLC DE NIA Company 0wnership 100.000 MMLIC												,			
	0000			04-1590850		0000067160		MML Private Equity Fund Investor LLC	DE	NIA		Ownership	100.000	MMLIC	
	0000			04-1590850					DE	NI A	MML Private Equity Fund Investor LLC	Ownership	100.000	MMLIC	

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											Type	If		
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											(Ownership,	is		
						Name of Securities			Relation-		Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
0000	Group Hamo	0000		1.002	0	momanionary	G17a.co			Massachusetts Mutual Life Insurance		lago		_
0000			. 04-1590850 .				100 w. 3rd Street LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
			101 1000000 1				100 W. Old Otlook EEO			Massachusetts Mutual Life Insurance	owner entry			
0000			04-1590850				300 South Tryon Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			. 04 1000000 .				ooo oodtii iiyon notei EEO			Massachusetts Mutual Life Insurance	- Owner Strip		WINE TO	
0000			04-1590850				300 South Tryon LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			. 04 1000000 .				000 Godin Tryon EEG	UL		Massachusetts Mutual Life Insurance	Owner Strip		WINE TO	
0000			20-3887968				54 West Capital LLC	DE	NIA	Company	Ownership	. 100.000	MMLIC	
0000		l					07 11031 Vapitai LLO	UL		Massachusetts Mutual Life Insurance	Omici Sirip			
0000			16-1720387				Alexandria Towers Investors LLC	DE	NIA	Company	Ownership	. 100.000	MMLIC	
0000			. 10-1/2038/ .				ATEXAMULTA TOWERS THVESTORS LLC	VE	IN I A	Massachusetts Mutual Life Insurance	Owner Strip.		I INIVIL TO	
0000]		1			Almack Mezzanine Fund LP	GBR	NIA	Company	Ownership	34.600	MMLIC	
0000							Almack Mezzanine Fund LP	GBR	NIA	C.M. Life Insurance Company	Ownership	5.300	MMLIC	
0000							Almack Mezzanine Fund LP	GBR	NIA		Management	5.300	MMLIC	
0000							Almack Mezzanine Fund i LP	Hatu	NIA	Babson Capital Europe Limited	management		- MMLIC	
0000							Alasada Nassasia a Fand III III II aanaa ad IB	GBR	ALL A		0	72.900	MMLIC	
							Almack Mezzanine Fund II Unleveraged LP		NIA	Company	Ownership	/2.900		
0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Babson Capital Europe Limited	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			-				Almack Mezzanine Fund III LP	GBR	NI A	Company	Ownership	34.200		
0000							Almack Mezzanine Fund III LP	GBR	NIA	C.M. Life Insurance Company	Ownership	3.800	. MMLIC	
0000							Almack Mezzanine Fund III LP	GBR	NIA	Babson Capital Europe Limited	Management		MMLIC	
							Babson Capital Emerging Markets Corporate			Massachusetts Mutual Life Insurance				
0000							Bond Fund	JRL	NIA	Company	Ownership	97.900		
							Babson Capital Emerging Markets Corporate							
0000							Bond Fund	JRL	NIA	Babson Capital Management LLC	Management		. MMLIC	
							Babson Capital Emerging Markets Local Debt			Massachusetts Mutual Life Insurance				
0000			-				Fund	JRL	NI A	Company	Ownership	64.900		
							Babson Capital Emerging Markets Local Debt							
0000							Fund	JRL	NIA	Babson Capital Management LLC	Management		. MMLIC	
							Babson Capital European High Yield Bond			Massachusetts Mutual Life Insurance				
0000							Fund	JRL	NIA	Company	Ownership	79.300	. MMLIC	
							Babson Capital European High Yield Bond				l			
0000							Fund	JRL	NIA	Babson Capital Management LLC	Management		. MMLIC	
							Babson Capital Global Special Situations			Massachusetts Mutual Life Insurance		40.005		
0000			-				Credit Fund 1	JRL	NI A	Company	Ownership	46.800		
		1					Babson Capital Global Special Situations							
0000			-				Credit Fund 1	JRL	NI A	Babson Capital Management LLC	Management		MMLIC	
							Babson Capital Global Special Situation			Massachusetts Mutual Life Insurance				
0000			. 98-1206017 .				Credit Fund 2	DE	NIA	Company	Ownership	24.400	MMLIC	
		1					Babson Capital Global Special Situation							
0000			98-1206017				Credit Fund 2	DE	NIA	C.M. Life Insurance Company	Ownership	1.600	_ MMLIC	
		1					Babson Capital Global Special Situation							
0000			. 98-1206017 .				Credit Fund 2	DE	NIA	Babson Capital Management LLC	Management		- MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 55-0886109 .		0001321302		Babson Capital High Yield LLC	DE	NI A	Company	Ownership	88.200	MMLIC	
0000			. 55-0886109 .		0001321302		Babson Capital High Yield LLC	DE	NI A	C.M. Life Insurance Company	Ownership	11.800	MMLIC	
0000			. 55-0886109 .		0001321302		Babson Capital High Yield LLC	DE	NIA	Babson Capital Management LLC	Management		. MMLIC	
		1								Massachusetts Mutual Life Insurance				
0000			. 37-1506417 .				Babson Capital Loan Strategies Fund, L.P.	DE	NIA	Company	Ownership	78.700	MMLIC	
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NIA	C.M. Life Insurance Company	Ownership	3.900	. MMLIC	
0000		 	37-1506417 .				Babson Capital Loan Strategies Fund, L.P	DE	NI A	Babson Capital Management LLC	Management		MMLIC	

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											Type	If		
											of Control	Control		
											(Ownership,	is		
						Name of Securities			Relation	-	Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID.	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reportin		Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
0000							Babson CLO Ltd. 2007-I	CYM	NI A	Babson Capital Management LLC	Influence		- MMLIC	4
0000							Babson CLO Ltd. 2011-I Babson CLO Ltd. 2012-I	CYM	NIA	Babson Capital Management LLC	InfluenceInfluence		MMLIC	
0000							Babson CLO Ltd. 2012-1	CYM	NIA	Babson Capital Management LLCBabson Capital Management LLC	Influence		MMLIC	
0000							Babson CLO Ltd. 2012-11	CYM	NIA	Babson Capital Management LLC	Influence		IMMLIC	7
0000			98-1128827			***************************************	Babson CLO Ltd. 2013-1	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	8
0000			50 1120021				Babson CLO Ltd. 2014-1	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	2
0000							Babson CLO Ltd. 2014-II	CYM	NIA.	Babson Capital Management LLC	Influence		MMLIC	9
0000							Babson CLO Ltd. 2014-III	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson CLO Ltd. 2015-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	10
0000							Babson CLO Ltd. 2015-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	11
0000							Babson CLO Ltd. 2016-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson Euro CLO 2014-I BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson Euro CLO 2014-II BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson Euro CLO 2015-I BV	NLD	NIA	Babson Capital Management LLC	Influence		MMLIC	
							Babson Global Credit Fund (Lux) SCSp,			Massachusetts Mutual Life Insurance				
0000							SIACV-SIF	LUX	NIA	Company	Ownership	26.300	MMLIC	
0000							Babson Global Credit Fund (Lux) SCSp,	1.111/						
0000							SIACV-SIF	LUX	NI A	Babson Capital Management LLC	Management		MMLIC	
0000			47-3971963				Babson Investment Grade CLO Debt Fund LP	DE	NIA	Company Company	Ownership	93.300	MMLIC	
0000			47-397 1963 .				Babson Investment Grade CLO Debt Fund LP	DE	NIA	C.M. Life Insurance Company	Ownership	6.700	MMLIC	
0000			47-397 1963				Babson Investment Grade CLO Debt Fund LF	DE	NIA	Babson Capital Management LLC	Management	0.700	MMLIC	
0000			41 031 1300 .			***************************************	Dabson Tives tillent di ade olo bebt i did li	UL		Massachusetts Mutual Life Insurance	management		- WWILTO	
0000			20-4570515		0001362970		Babson Mezzanine Realty Investors I	DE	NIA	Company	Ownership	37.000	MMLIC	
0000			20-4570515		0001362970		Babson Mezzanine Realty Investors I	DE	NIA	C.M. Life Insurance Company	Ownership.	1.900	MMLIC	
0000			20-4570515		0001362970		Babson Mezzanine Realty Investors I	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
							, , , , , , , , , , , , , , , , , , , ,			Massachusetts Mutual Life Insurance				
0000			24-1446970 .		. 0001362970		Babson Mezzanine Realty Investors II	DE	NIA	Company	Ownership	0.000	MMLIC	
0000			24-1446970 .		. 0001362970		Babson Mezzanine Realty Investors II	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000							Baring Emerging Market Corp Debt Fund	JRL	NIA	Company	Ownership	87.000	MMLIC	
0000					-		Baring Emerging Market Corp Debt Fund	JRL	NI A	Baring Asset Management Limited	Management		MMLIC	
0000			44 0700440				Danisa Francis FAFF F with Found	סר	ALLA	Massachusetts Mutual Life Insurance	0	FO. 400	184 10	
0000			11-3789446 .	-			Baring Focused EAFE Equity Fund	DE	NIA	Company	Ownership	52.400	.MMLIC	
0000			11–3789446 .	1			Baring Focused EAFE Equity Fund Baring Global Dynamic Asset Allocation	DE	NIA	Baring Asset Management Limited Massachusetts Mutual Life Insurance	Management		WMLIC	-
0000			30-0607379 .		0001497049		Fund	DE	NIA	Company	Ownership	27.000	MMLIC	
0000			30 0001319 .		. 500 173/043		Baring Global Dynamic Asset Allocation				. omici sirip			
0000			30-0607379		0001497049		Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC	
							Baring International Small Cap Equity Fund			Massachusetts Mutual Life Insurance				-
0000			26-4142796					DE	NIA	Company	Ownership	48.100	MMLIC	
							Baring International Small Cap Equity Fund			, ,	,			
0000			26-4142796 .	.				DE	NIA	Baring Asset Management Limited	Management		MMLIC	
0000			98-0536233 .				Benton Street Partners I, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership	98.000	MMLIC	
0000			98-0536233 .				Benton Street Partners I, L.P.	CYM	NIA	Babson Capital Management LLC	Management		MMLIC	
0000			98-0536233 .				Benton Street Partners I, L.P	CYM	NIA	C.M. Life Insurance Company	Ownership	0.100	MMLIC	
1										Massachusetts Mutual Life Insurance		1		
0000			98-0536233	-			Benton Street Partners I, L.P.	CYM	NIA	Company	Ownership	0.800	MMLIC	
										Massachusetts Mutual Life Insurance			l	
0000			98-0536199	.	.		Benton Street Partners II, L.P.	CYM	NIA	Company	Ownership	33.300	MMLIC	3

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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						Name of Securities			Relation)-	Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.Ś. or	Parent, Subsidiaries	Loca-	Reportir	ng Directly Controlled by	Influence,	Percen-	- Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership	4.800	MMLIC	
0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	Babson Capital Management LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 06-1614196 .				Cambridge Hotel, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-1590850				Cheyenne Mountain Resort LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
							Connecticut Valley Structured Credit CDO							
0000							II, Ltd	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	5
		1					Connecticut Valley Structured Credit CDO							
0000							III, Ltd	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Cornerstone Core Fund SCSCp	LUX	NIA	MassMutual Holding LLC	Ownership	93.900	MMLIC	
0000							Cornerstone Core Fund SCSCp	LUX	NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC	
0000							Cornerstone Core Fund SCSCp	LUX	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			27-1701622		. 0001481752		Cornerstone Core Mortgage Venture LP	DE	NIA	Company	Ownership	50.000	MMLIC	
0000			27-1701622		. 0001481752		Cornerstone Core Mortgage Venture LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			45-3751572		. 0001534877		Cornerstone Enhanced Mortgage Fund LP	DE	NIA	Company	Ownership	15.600	MMLIC	
0000			45-3751572 .		. 0001534877		Cornerstone Enhanced Mortgage Fund LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 20-8730751 .				Cornerstone Global Real Estate LP	DE	NIA	Company	Ownership	92.300	MMLIC	
0000			20-8730751 .				Cornerstone Global Real Estate LP	DE	NIA	C.M. Life Insurance Company	Ownership	7.600	MMLIC	
0000			20-8730751 .				Cornerstone Global Real Estate LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			36-4770946		. 0001590049		Cornerstone High Yield Venture LP	DE	NIA	Company	Ownership	50.000	MMLIC	
0000			36-4770946		. 0001590049		Cornerstone High Yield Venture LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
							Cornerstone Hotel Income & Equity Fund II			Massachusetts Mutual Life Insurance				
0000			. 26-1828760 .		. 0001423638		LP	DE	NIA	Company	Ownership	15.600	MMLIC	
							Cornerstone Hotel Income & Equity Fund II							
0000			. 26-1828760 .		. 0001423638		LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
0000		1	74 0000077				0	D-		Massachusetts Mutual Life Insurance	O marsh:	400 000	IIII 10	
0000			71-0908077 .		-		Cornerstone Partners IV LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			20-5578089		-		Cornerstone Patriot Fund LP	DE	NIA	MassMutual Holding LLC	Ownership	10.200		
0000			20-5578089 .		-		Cornerstone Patriot Fund LP	UE	NIA	Cornerstone Real Estate Advisers LLC	Management	-	MMLIC	
0000		1	07 0547450				Commenters Deal Fatata Fund VIII ID	DE	NII A	Massachusetts Mutual Life Insurance	Ownership	10.700	10.10	
0000		l	. 27-0547156 . . 27-0547156 .		-		Cornerstone Real Estate Fund VIII LP Cornerstone Real Estate Fund VIII LP	DE	NIA NIA	Company	Ownership	. 12.700	MMLIC	
		l	. 21-034/136 .		-		Cornerstone Hear Estate Fund VIII LP	. b <u>t</u>	NIA	Massachusetts Mutual Life Insurance	Management		WMLIC	
0000		1	46-5432619				Corporatore Peal Estate Fund V I D	DE	NIA	Company	Ownership	26.900	MMLIC	
0000			46-5432619				Cornerstone Real Estate Fund X LP	. DE	NIA	C.M. Life Insurance Company	Ownership	3.000	MMLIC	
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA NIA	Cornerstone Real Estate Advisers LLC	Wanagement		MMLIC	
0000			. +0-0402019 .		-		OUTHER STUHE HEAT ESTATE FUHL A LF	- ^{UE}	NIN	Massachusetts Mutual Life Insurance	manayement	-	WWILTO	
0000		1	46-5437441				Cornerstone/LAZ Parking Fund LP	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			. 46-5437441 . 46-5437441		-		Cornerstone/LAZ Parking Fund LP	DE	NIA NIA	Company	- Ownership	. 100.000	MMLIC	
0000			. 1441/441	3981641	-		Duchess VI CLO B.V.	GBR	NIA NIA	Babson Capital Management LLC	Influence.	-	MMLIC	
0000		l		4007502	-		Duchess VII CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
							Duciness VII OLU D.V.	nubn	NIA	Massachusetts Mutual Life Insurance			WWILTO	
0000		1	20-3887968				E-Wise Land Venture LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000					-		E 1130 LANG VENTUI & LLO	UE	NIA	Massachusetts Mutual Life Insurance	omidi sirry		mm_10	
0000		1	80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Company	Ownership	78.100	MMLIC	
0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	9.700	MMLIC	
			. 00-0091203 .		. 1000 10 17 190	.	Tuateway wezzaiiiie raitieis i, L.P	UE	N I M	U.m. Life Hisurance company	OMITEL 2111b	. 8. / 00		

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											(Ownership,	is		
						Name of Securities			Relation-		Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
_		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group	<u> </u>	Company	. ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
0000			80-0691253		0001517196		Gateway Mezzanine Partners I, L.P	DE	NIA	MassMutual Holding LLC	Ownership	12.200	- MMLIC	
0000			. 80-0691253 .		0001517196		Gateway Mezzanine Partners I, L.P	DE	NIA	Babson Capital Management LLC	Management		. MMLIC	
0000			90-0991195		0001597511		Cataman Magazaira Dantasaa II ID	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	35.700	MMLIC	
0000			. 90-0991195 . . 90-0991195 .		0001597511		Gateway Mezzanine Partners II LP Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC	
0000			90-0991195 .		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	MassMutual Holding LLC	Ownership	5.200	MMLIC	
0000			. 90-0991195 . . 90-0991195 .		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Babson Capital Management LLC	Management.	5.200	MMLIC	
0000			30 0331133 .		0001037511		dateway wezzaiiile i ai theis ii Li			Massachusetts Mutual Life Insurance	- management			
0000			. 37-1708623 .		0001565779		Great Lakes III, L.P.	DE	NIA	Company	Ownership	35.700	MML1C	
0000			37-1708623		0001565779		Great Lakes III. L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
					200 1000/ 10		a. oa. Euroo III, E.I.			Massachusetts Mutual Life Insurance		-		
0000			. 20-3887968 .				Kazwell Realty Partners LLC	DE	NIA	Company	Ownership	100.000	MML1C	
										Massachusetts Mutual Life Insurance				
0000			45-3754085 .				King Alexander LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance	·			
0000			46-4255307				Marco Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			26-2704765				MMI/BDI Riverside Mt. Vernon LLC	DE	NI A	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 26-3799762 .				MML O'Hare Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 20-3887968 .				Oakley Grove Development LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 20-3887968 .				Old Pasco Properties LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
			==							Massachusetts Mutual Life Insurance				
0000			. 75–2901061 .				Reston Arboretum LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			30-0713071				Riva Portland LLC	DE	NILA		0	100.000	104 10	
0000			. 30-0/130/1 .				Rockall CLO B.V.	GBR	NIA NIA	CompanyBabson Capital Management LLC	OwnershipInfluence.	100.000	MMLIC	
0000							nockail old b.v.	dbn	NIA	Massachusetts Mutual Life Insurance	Initiaence		INMLIC	
0000			54-2055778				Rockville Town Center LLC	VA	NIA	Company	Ownership.	100.000	MMLIC	
0000			. 04 2000//0 .				Sapphire Valley CDO I, Ltd.	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	6
0000										Massachusetts Mutual Life Insurance				
0000			74-3182902				SDCOS L.P.	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			74-3182902				SDCOS L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-5491311 .				Seattle 1415 Hotel Owner LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance	,			
0000			. 04-1590850 .				Sedona TFMP Land LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			20-8856877 .		0001409910		Somerset Special Opportunities Fund L.	PDE	NIA	Company	Ownership	62.400	MMLIC	
0000			20-8856877 .		0001409910		Somerset Special Opportunities Fund L.		NIA	C.M. Life Insurance Company	Ownership	2.900	. MMLIC	
0000			. 20-8856877 .		0001409910		Somerset Special Opportunities Fund L.	PDE	NIA	Babson Capital Management LLC	Management		MMLIC	
l										Massachusetts Mutual Life Insurance		1		
0000			. 04-1590850 .				South Myrtle Monrovia MM LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			00 0007000				0 11 5 5 7 11 11 11			Massachusetts Mutual Life Insurance		400 000		
0000			. 20-3887968 .				South Pasco Properties LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			20 0000040		0001045070		Taman Course Comity Double on 11 1 2	DE	NII A	Massachusetts Mutual Life Insurance	O	OF 700	IMILIC	
0000			30-0336246		0001345379 0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	Company	Ownership	25.700	MMLIC	
0000			30-0336246				Tower Square Capital Partners II, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	4.500		
0000			30-0336246	.	0001345379		Tower Square Capital Partners II, L.P.	DE	NI A	Babson Capital Management LLC	Management		MMLIC	

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		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)
0000			. 30-0336246 .		0001345379		Tower Square Capital Partners II, L.P	DE	NI A	MassMutual Holding LLC	Ownership	2.600	MMLIC
										Massachusetts Mutual Life Insurance			
0000			. 32-0160190 .				Tower Square Capital Partners II-A, L.P.	DE	NIA	Company	Ownership	85.000	MMLIC
0000			. 32-0160190 .				Tower Square Capital Partners II-A, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	15.000	MMLIC
0000			. 32-0160190 .				Tower Square Capital Partners II-A, L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC
0000			. 41-2280127 .		0001447547		Tower Square Capital Partners III, L.P	DE	NIA	Babson Capital Management LLC	Management		MMLIC
0000			41-2280127		0001447547		Tower Square Capital Partners III, L.P	DE	NIA	MassMutual Holding LLC	Ownership	21.900	MMLIC
0000			41-2280129		0001447548		Tawar Course Conital Dantage 1114 D	DE	MIA	Massachusetts Mutual Life Insurance	Ownership	00.000	MML1C
0000		-	41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P.	DE	NIA NIA	CompanyBabson Capital Management LLC	Ownership	96.200	MMLIC
0000			. 41-2280129 . . 80-0920367 .		0001447548		Tower Square Capital Partners IIIA, L.P Tower Square Capital Partners IV-A, L.P	DE	NIA NIA	Babson Capital Management LLC MassMutual Holding LLC	Management	21.300	MMLIC
0000			. 80-0920367 . . 80-0920367 .		0001598727		Tower Square Capital Partners IV-A, L.P.	DE	NIA NIA	Babson Capital Management LLC	Management.	. 2 1 . 300	MMLIC
0000			. 00-032030/ .		0001030121		TOWER OQUATE CAPITAL FAITHERS IV-A, L.P.	J	NIM	Massachusetts Mutual Life Insurance	manayement		WHILL IV
0000			04-3722906		0001228752		Tower Square Capital Partners, L.P	DE	NIA	Company	Ownership.	36.200	MMLIC
0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	0.600	MMLIC
0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	Babson Capital Management LLC	Management	0.000	MMLIC
0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	MassMutual Holding LLC	Ownership	3.600	MMLIC
			10.0.22000				Tonor oquaro oupritur rurtioro, ziri			Massachusetts Mutual Life Insurance	отпотот р		
0000			. 04-1590850 .				West 46th Street Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC
0000]				Whately CDO, Ltd.	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC
							, ,			Massachusetts Mutual Life Insurance			
0000			20-4981369 .		0001371601		Wood Creek Multi Asset Fund, L.P.	DE	NIA	Company	Ownership	100.000	MMLIC
0000			20-4981369		0001371601		Wood Creek Multi Asset Fund, L.P	DE	NIA	Babson Capital Management LLC	Management		MMLIC
							Babson Capital Emerging Markets Debt						
0000							Blended Total Return Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC
							Babson Capital Emerging Markets Debt Shor						
0000							Duration Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC
							Babson Capital Emerging Markets Sovereign						
0000							Debt Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC
0000			27-3330830		0001521404		Babson Capital Floating Rate Income Fund,	DE	NILA	No or Modern I. Holdshop I.I.O.	0h:	0.000	188 10
0000			. 27-3330830 .		0001521404		L.P.	DE	NIA	MassMutual Holding LLC	Ownership	0.000	MMLIC
0000			27-3330830		0001521404		Babson Capital Floating Rate Income Fund,	DE	NIA	Babson Capital Management LLC	Management		MMLIC
0000			. 27-3330830 .		000 152 1404		Babson Capital Loan Strategies Master Fun		NIA	Babson Capital Management LLC	management		MMLIC
0000							babson capital Loan Strategies master Fun	CYM	NIA	Babson Capital Management LLC	Management		MMLIC
0000		-					Babson Capital Global Investment Funds pl		NI M	Massachusetts Mutual Life Insurance	manayement	-	
0000					0001502146		Dabbon oup tur Grobal investment rulius pr	J.RL	NIA	Company	Ownership	0.300	MMLIC
					0001002110		Babson Capital Global Investment Fund 2			Massachusetts Mutual Life Insurance	omor on p		
0000					0001582591		plc	JRL	NIA	Company	Ownership	0.000	MMLIC
							Babson Capital Global Investment Fund 2			1 ,			
0000					0001582591		plc	JRL	NIA	Babson Capital Management LLC	Management		MMLIC
							Babson Capital Global Investment Grade						
0000							Corporate Plus Fund	J.RL	NIA	Babson Capital Management LLC	Management	.	MMLIC
0000							Babson Capital Senior CLO Debt Fund	JRL	NIA	Babson Capital Management LLC	Management		MMLIC
							Babson Emerging Markets Debt Blended Tota						
0000			. 47-3758432 .				Return Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC
					[Babson Emerging Markets Local Currency				1		
0000			. 47-3774453				Debt Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC
0000			40 04 :070 :		[Babson Global Income Opportunities Credit	ļ "			l., .		188 10
0000		-	46-3119764				Fund	MA	NIA	Babson Capital Management LLC	Management	-	MMLIC
0000			47-3790192	.			Babson Global High Yield Bond Fund	MA	NIA	Babson Capital Management LLC	Management	.	MML1C

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		NAIC	ID.	l		if Publicly Traded	Names of	ciliary	to	B: " 0 . " 11	Attorney-in-Fact,	Provide	188 1 0 1 8	
Group	Owner Name	Company	ID Novembran	Federal RSSD	Oll	(U.S. or	Parent, Subsidiaries	Loca-	Reporting		Influence,	Percen-	Ultimate Controlling	*
O000	Group Name	Code	Number 47-3734770	RSSD	CIK	International)	Or Affiliates Babson Total Return Bond Fund	tion	Entity	(Name of Entity/Person) Babson Capital Management LLC	Other) Management	tage	Entity(ies)/Person(s)	
0000			47-3734770 .				Babson US High Yield Fund	MA	NIA	Babson Capital Management LLCBabson Capital Management LLC	Management			
0000			47 300 1000 .				Gateway Mezzanine Partners I Trust	AUS	NIA	Babson Capital Management LLC	Management		MMLIC	
							datonay mozzamio rai moro i maot			Massachusetts Mutual Life Insurance				
0000			71-1018134 .				Great Lakes II LLC	DE	NIA	Company	Ownership	11.200	MMLIC	
0000			71-1018134 .				Great Lakes II LLC	DE	NIA	C.M. Life Insurance Company	Ownership	1.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			56-2505390				Great Lakes LLC	DE	NIA	Company	Ownership	4.400	MMLIC	
0000			56-2505390				Great Lakes LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.500		
0000			46-2344300 .				Intermodal Holdings II LLC	DE	NIA	Wood Creek Capital Management LLC	Influence	-	MMLIC	
0000							Somerset Special Opportunities Master Fund	CYM	NIA	Babson Capital Management LLC			MMLIC	
							LF		NIA	Massachusetts Mutual Life Insurance	manayellerit		WINIL TO	
0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Company	Ownership.	60.000	MMLIC	
0000							Baring Greater China Equity Fund	_HKG	NIA	Baring Asset Management Limited	Management		MMLIC	
							12-18 West 55th Street Predevelopment, LLC			Massachusetts Mutual Life Insurance				
0000			20-2548283					DE	NIA	Company	Ownership	88.200	MMLIC	
							12-18 West 55th Street Predevelopment, LLC							
0000			20-2548283 .					DE	NIA	C.M. Life Insurance Company	Ownership	7.700	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 46-4803557 . . 46-4803557 .				2 Harbor Shore Member LLC	DE	NIA	Company	Ownership	91.000	MMLIC	
0000			46-4803557 .				2 Harbor Shore Member LLC	UE	NIA	Massachusetts Mutual Life Insurance	Uwnersnip	9.000	MMLIC	
0000			36-4823011				50 Liberty LLC	DE	NIA	Company	Ownership.	91.000	MMLIC	
0000			36-4823011				50 Liberty LLC	DE	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC	
							00 2.50. () 220			Massachusetts Mutual Life Insurance	отпологира			
0000			80-0948028 .				One Harbor Shore LLC	DE	NIA	Company	Ownership	91.000	MMLIC	
0000			80-0948028 .				One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			45-5257904 .				21 West 86 LLC	DE	NIA	Company	Ownership	91.200	MMLIC	
0000			45-5257904 .				21 West 86 LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC	
0000			45-2779931 .				AT Mid-Atlantic Office Portfolio LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC	
0000			45-2779931 .				AT Mid-Atlantic Office Portfolio LLC	DE	NIA	C.M. Life Insurance Company	Ownership	10.000	MMLIC	
0000			- 1000112				MIG ACIGNICIO OTTICE FOI CIOTIO ELO		INI /\	Massachusetts Mutual Life Insurance	σπισι σπιρ			
0000			04-1590850 .				CHC/RFP VI Core LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
1										Massachusetts Mutual Life Insurance				
0000			56-2630592 .				Cornerstone Fort Pierce Development LLC	DE	NIA	Company	Ownership	83.900	MMLIC	
0000			56-2630592 .				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.100	MMLIC	
l			45 00000/-							Massachusetts Mutual Life Insurance				
0000			45-2632610 .				Cornerstone Permanent Mortgage Fund	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			46-5001122				CREA 330 Third LLC	DE	NIA	Massachusetts Mutual Life Insurance	Ownership	92.000	MMLIC	
0000			. 46-5001122 . . 46-5001122 .				CREA 330 Third LLC	DE	NIA NIA	C.M. Life Insurance Company	Ownership	8.000	MMLIC	
0000			0-0001122 .				OILA GOO IIII U LLO	VE	IN I A	Massachusetts Mutual Life Insurance	σπισι στι μ	0.000	WINE TO	
0000			46-4367364 .				CREA FMF Nashville LLC	DE	NIA	Company	Ownership	100.000		
										Massachusetts Mutual Life Insurance				
0000			26-2399532 .				CREA/LYON West Gateway, LLC	DE	NIA	Company	Ownership	54.000	MMLIC	
0000			26-2399532 .				CREA/LYON West Gateway, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC	
0000		l	81-0890084				CREA Madison Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	100.000	MMLIC	

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		NAIC			if Pu	ublicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting		Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK In	ternational)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
										Massachusetts Mutual Life Insurance				
0000			20-0348173				CREA/PPC Venture LLC	DE	NI A	Company	Ownership	93.400	MMLIC	
0000			. 20-0348173 .	-			CREA/PPC Venture LLC	DE	NI A	C.M. Life Insurance Company	Ownership	6.600	MMLIC	
							- · · · · · · · · · · · · · · · · · · ·			Massachusetts Mutual Life Insurance				
0000			. 26-1611591	. 3956836			Fallon Cornerstone One MPD LLC	DE	NI A	Company	Ownership	55.300	MMLIC	
0000			. 26-1611591 .	. 3956836			Fallon Cornerstone One MPD LLC	DE	NI A	C.M. Life Insurance Company	Ownership	5.500	MMLIC	
0000			00 0047004				For Disa Development IIIO	סר	NII A	Massachusetts Mutual Life Insurance	0	04 000	MMLIC	
0000		-	20-3347091	-			Fan Pier Development LLC	DE	NIA	Company	Ownership	91.000	MMLIC	
0000		-	20-3347091	1			Fan Pier Development LLC	VE	NIA		Ownership	9.000	MMLIU	
0000			46-3880526	1			Forringdon London Holdings II.C	DE	NIA		Ownership	94.500	MMLIC	
0000			. 46-3880526 . . 46-3880526 .	-			Farringdon London Holdings LLC	DE	NIA	Company	Ownership	5.500	IMMLIC	-
0000			. 40-3880326 .				Farringdon London Holdings LLC	VE	NI A	Massachusetts Mutual Life Insurance	Ownership	3.300	MMLIC	
0000				1			Infinity SCD Ltd	GBR	NIA	Company	Ownership.	4.200	MMLIC	
0000							minity SOD Liu	חחמה	N I M	Massachusetts Mutual Life Insurance	Owner Strip	4.200	INMILIO	
0000			20-4819358				Johnston Groves LLC	DE	NIA	Company	Ownership	57.200	MMLIC	
0000			_ 20-4013000 .	1			OUIIIS COIT OF OVES LLO	UE	NI /\	Massachusetts Mutual Life Insurance	United SITIP	200	WWWL TV	
0000			46-5347643	1			MMI/Hines Harrison LLC	DE	NIA	Company	Ownership	92.000	MMLIC	
0000			. 46-5347643	1			MMI/Hines Harrison LLC	DE	NIA	C.M. Life Insurance Company	Ownership	8.000	MMLIC	
0000							mmil/iiiioo ilaii iouii LLU			Massachusetts Mutual Life Insurance	σπιστ σπτρ			
0000			. 46-4077059	1			MM Woodfield Martingale LLC	DE	NIA	Company	Ownership	80.400	MMLIC	
0000			46-4077059	1			MM Woodfield Martingale LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	19.600	MMLIC	
				1			Salomon Brothers Commercial Mortgage Trust							
0000]			2001-MM	DE	NIA	Cornerstone Real Estate Advisers LLC	Influence		MMLIC	
										Massachusetts Mutual Life Insurance				
0000		.	27-2977720	.]			Sawgrass Village Shopping Center LLC	DE	NIA	Company	Ownership	84.200	MMLIC	.
0000			27-2977720				Sawgrass Village Shopping Center LLC	DE	NIA	C.M. Life Insurance Company	Ownership	15.800	MMLIC	
							, •			Massachusetts Mutual Life Insurance				
0000							Ten Fan Pier Boulevard LLC	DE	NIA	Company	Ownership	91.000		
0000							Ten Fan Pier Boulevard LLC	DE	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC	
				1						Massachusetts Mutual Life Insurance				
0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	Company	Ownership	91.000	MMLIC	
0000		.	35-2484550	-			Twenty Two Liberty LLC	MA	NIA	C.M. Life Insurance Company	Ownership	9.000	MMLIC	.
				1						Massachusetts Mutual Life Insurance				
0000		.	. 45-4606547 .	-			UK LIW Manager LLC	DE	NI A	Company	Ownership	1.000	MML IC	.
			45 40	1						Massachusetts Mutual Life Insurance				
0000			. 45-4606547 .	-			UK LIW Member LLC	DE	NI A	Company	Ownership	99.000	MMLIC	
0000			45 5401100	1			Weekington Out A	DE	N	Massachusetts Mutual Life Insurance	O manufacti	00 400	188 10	
0000			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Company	Ownership	90.400	MMLIC	
0000			45-5401109				Washington Gateway Apartments Venture LLC .	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC	.
0000			20-2970495	1			Waterford Development Associates	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	90.000	MMLIC	
0000		-	_ 20-29/0495 .				waterioru Development Associates	VE	NIA	Massachusetts Mutual Life Insurance	Ownership		MML I U	-
0000			47-1993493	1			Waterloo London Holdings LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000		
0000			. 47-1993493	1			water 100 London Hordings LLC	VE	NI A	Massachusetts Mutual Life Insurance	Uwrier Stilp	. 100.000	MML I U	
0000			46-3122029	1			WeHo Domain LLC	DE	NIA	Company	Ownership	86.000	MMLIC	
0000			46-3122029	1			WeHo Domain LLC	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC	
0000			. 70 0 122029 .	1			TICHO DOMATH LLO	UE	NI/\	Massachusetts Mutual Life Insurance	omici sirip	17.000		
0000			81-1552222	1			Willowwood Lakeside Master LLC	DE	NIA	Company	Ownership	50.000	MMLIC	
0000							millionmood Eunoside musici ELO			Massachusetts Mutual Life Insurance	- Carrier Girip			
0000			20-5481477	1			Ygnatio Valley Funding	DE	NIA	Company	Ownership	90.000	MMLIC	
0000				-			righter tallog lunuing		INI/N	Oompurij	v v v v v v v v v	.		.

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		NIAIO				Exchange	Names of	Domi-	ship		Management,	ship		
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Group Code	Group Name	Company Code	Number	Federal RSSD	CIK	International)	Or Affiliates	Loca- tion	Reporting Entity	Directly Controlled by (Name of Entity/Person)	Influence, Other)	Percen- tage	Ultimate Controlling Entity(ies)/Person(s)	*
Code	Gloup Name	Code	Number	NOOD	CIIX	international)	MassMutual Barings Dynamic Allocation Fund	tion	Littly	Massachusetts Mutual Life Insurance	Other)	lage	Littly(les)/Ferson(s)	
0000			45-3168892 .			nn	massmutual barrings bynamic Arrocation Fund	MA	NIA	Company	Ownership	93.800	MML IC	
0000			45 5 100032 .			UQ		III/\	INI /\	Massachusetts Mutual Life Insurance	Owner Sirrp.		WILL TO	
0000			51-0529328		0000927972 0	00	MassMutual Premier Main Street Fund	MA	NIA	Company	Ownership	40.500	MMLIC	
						· · · · · · · · · · · · · · · · · · ·	MassMutual Premier Strategic Emerging			Massachusetts Mutual Life Insurance				
0000			. 26-3229251 .		0000927972 0	00	Markets Fund	MA	NIA	Company	Ownership	30.700	MMLIC	
										Massachusetts Mutual Life Insurance	·			
0000			04-3277550		0000927972 0	OQ	MassMutual Premier Value Fund	MA	NIA	Company	Ownership	97.800	MMLIC	
					1		MassMutual Select Diversified			Massachusetts Mutual Life Insurance				
0000			14-1980900 .		0000916053 (00	International Fund	MA	NI A	Company	Ownership	61.400	MMLIC	
1			1		1					Massachusetts Mutual Life Insurance				
0000			01-0821120 .		0000916053 0	DQ	MassMutual Select Diversified Value Fund	MA	NI A	Company	Ownership	30.400	MMLIC	
0000			04 0540500		0000040050	20				Massachusetts Mutual Life Insurance		47.000	188 10	
0000			04–3512593 .		0000916053 0	UU	MassMutual Select Fundamental Growth Fund	MA	NIA	Company	Ownership	17.900	MMLIC	
0000			04-3513019		0000916053	00	North tool Octob Long On Value Food	MA	NIA	Massachusetts Mutual Life Insurance	0	99.900	MMLIC	
0000			04-3513019 .		0000910053 (UU	MassMutual Select Large Cap Value Fund	MA	NIA	Company	Ownership	99.900	MMLIC	
0000			42-1710935 .		0000916053 (00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Company	Ownership	99.800	MML1C	
0000			42-1/10933 .		0000910055	υ u	MassMutual Select Small Capital Value	NA	NI A	Massachusetts Mutual Life Insurance	Owner Strip	99.000	MMLTC	
0000			02-0769954 .		0000916053 0	nn	Equity Fund	MA	NIA	Company	Ownership	38.600	MMLIC	
0000			02 0/00004 .		00000 10000	ou	MassMutual Select Small Company Value Fund			Massachusetts Mutual Life Insurance	- Owner Sirip		WILL TO	
0000			04-3584140		0000916053 0	00	macomataar ooroot omarr oompany varao rana	MA	NIA	Company	Ownership.	83.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-4257056 .		0000067160		MML Series International Equity Fund	MA	NIA	Company	Ownership	5.700	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			47-3517233		0001317146		MML Series II Asset Momentum Fund	MA	NI A	Company	Ownership	98.200	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			47-3529636 .		0001317146		MML Series II Dynamic Bond Fund	MA	NI A	Company	Ownership	7.300	MMLIC	
			.= .=							Massachusetts Mutual Life Insurance				
0000			47–3544629 .		0001317146		MML Series II Equity Rotation Fund	MA	NIA	Company	Ownership	99.600	MMLIC	
0000			47-3559064		0001317146		MML Series II Special Situations Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	99.200	MMLIC	
0000			+1-3339004 .		000 13 17 140		minic delles il opecial situations rund	M	NIN	Massachusetts Mutual Life Insurance	Omited 2011h		WINE 0	
0000			46-3289207		0000916053		MassMutual RetireSMART 2055 Fund	MA	NIA	Company	Ownership	29.900	MMLIC	
			+0 0203201 .		55005 10000		massimatual lictificommili 2000 Fullu	m/L		Massachusetts Mutual Life Insurance	Omited Still p			
0000			47-5326235 .		0000916053		MassMutual RetireSMART 2060 Fund	MA	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			45-1618155 .		0000916053		MassMutual RetireSMART Conservative Fund	MA	NIA	Company	Ownership	99.900	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 45-1618222 .		0000916053		MassMutual RetireSMART Growth Fund	MA	NIA	Company	Ownership	99.900	MMLIC	
					1					Massachusetts Mutual Life Insurance				
0000			45-1618262		0000916053		MassMutual RetireSMART Moderate Fund	MA	NIA	Company	Ownership	99.900	MMLIC	
0000			45 40 100 15		0000045555		MassMutual RetireSMART Moderate Growth			Massachusetts Mutual Life Insurance		00.000	188.10	
0000			45-1618046 .		0000916053		Fund	MA	NIA	Company	Ownership	99.900	MMLIC	
0000			45–3417590 .		0001530245		Oppenheimer Global High Yield Fund	DE	NI A	OppenheimerFunds, Inc	Management		MMLIC	
0000			46-1604428 .		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	43.700	MMLIC	
0000			46-1604428 . 46-1604428 .		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	C.M. Life Insurance Company	Ownership	3.500	MMLIC	
0000			46-1604428 .		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
					550 1002000		Oppenheimer Global Multi-Asset Growth Fund			opposition and, mo.				
0000			47-3676235				Treatment of the state of the s	DE	NIA	OppenheimerFunds, Inc.	Management			

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	2	3	4	5	ь	/	8	9	10	I I	_12	13	14	15
											Туре	lt lt		
											of Control	Control		
											(Ownership,	is		
						Name of Securities			Relation-		Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
							Oppenheimer Global Multi-Asset Income Fund							
0000			47-1714929 .					DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
										Massachusetts Mutual Life Insurance	_			
0000			22-3849391 .		0001163166		Oppenheimer Real Estate Fund	MA	NIA	Company	Ownership	49.600	MMLIC	
0000			47-4835759 .				Oppenheimer Small Cap Value Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	
0000			47-3987967 .				Oppenheimer SteelPath Panoramic Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MMLIC	

Asterisk	Explanation
1	Massachusetts Mutual Life Insurance Company owns 2.78% of the affiliated debt of Jefferies Finance LLC
	Debt investors own 3.1% and includes only Great Lakes III, L.P.
	Partnership investors own 99% and include Babson Loan Strategies Fund, L.P.
	Debt investors own 3.4% and includes only Babson Capital Loan Strategies Fund, L.P.
	Debt investors own 31.6% and includes only Connecticut Valley Structured Credit CDO III, Ltd.
	Debt investors own 54.6% and includes only Babson Capital Loan Strategies Fund, L.P.
7	Debt investors own 4.7% and includes only Babson Capital Loan Strategies Fund, L.P.
8	Debt investors own 4.1% and includes only Great Lakes III, L.P.
9	Debt investors own 5.2% and includes only Great Lakes III, L.P.
	Debt investors own 1.9% and includes only Great Lakes III, L.P.
11	Debt investors own 3.8% and includes only Great Lakes III, L.P.

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

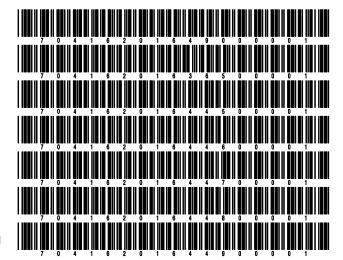
The following supplemental reports are required to be filed as part of your statement filing. However, in the event that your company does not transact the type of business for which the special report must be filed, your response of NO to the specific interrogatory will be accepted in lieu of filing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

		Response
1.	Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
2.	Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
3.	Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
4.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
5.	Will the Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI be filed with the state of domicile and electronically with the NAIC?	NO
6.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average Market Value) be filed with the state of domicile and electronically with the NAIC?	NO
7.		NO
	Explanation:	
1.	Not required.	
2.	Not required.	

- 3. Not required.
- 4. Not required.
- Not required.
- 6. Not required.
- 7. Not required.

Bar Code:

- Trusteed Surplus Statement [Document Identifier 490]
- Medicare Part D Coverage Supplement [Document Identifier 365]
- Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445]
- Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 446]
- Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447]
- Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448]
- Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449]



NONE

SCHEDULE A - VERIFICATION

Real Estate

		1	2
			Prior Year Ended
		Year to Date	December 31
1.	Book/adjusted carrying value, December 31 of prior year		
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		
	2.2 Additional investment made after acquisition		
3.	Current year change in encumbrances		
4.	Total gain (loss) on disposals		
5.	Deduct amounts received on disposals		
6.	Total foreign exchange change in book/adjusted erryin walls		
7.	Deduct current year's other than temporary impailment responsive to the control of the control o		
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
			Prior Year Ended
		Year to Date	December 31
1.	Book value/recorded investment excluding accrued interest, December 31 of prior year	5,847,458	4, 170, 281
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		2,383,218
	2.2 Additional investment made after acquisition		
3.	Capitalized deferred interest and other		
4.	Accrual of discount		1, 132
5.	Unrealized valuation increase (decrease)		
6.	Total gain (loss) on disposals Deduct amounts received on disposals		
7.	Deduct amounts received on disposals	449,604	711,572
8.	Deduct amortization of premium and mortgage interest points and commitment fees	3, 124	7,380
9.	Total foreign exchange change in book value/recorded investment excluding accrued interest		
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)	5,396,130	5,847,458
12.	Total valuation allowance		
13.	Subtotal (Line 11 plus Line 12)	5,396,130	5,847,458
14.	Deduct total nonadmitted amounts		
15.	Statement value at end of current period (Line 13 minus Line 14)	5,396,130	5,847,458

SCHEDULE BA - VERIFICATION

Other Long-Term Invested Assets

	-	1	2
			Prior Year Ended
		Year to Date	December 31
1.	Book/adjusted carrying value, December 31 of prior year		
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		
	2.2 Additional investment made after acquisition		
3.	Capitalized deferred interest and other		
4.	Accrual of discount		
5.	Unrealized valuation increase (decrease)		
6.	Total gain (loss) on disposals		
7.	Deduct amounts received on disposals		
8.	Deduct amortization of premium and depreciation		
9.	Total foreign exchange change in book/adjusted carrying value		
10.	Deduct current year's other than temporary impairment recognized		
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)		
12.	Deduct total nonadmitted amounts		
13.	Statement value at end of current period (Line 11 minus Line 12)		

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	222,828,946	144,280,400
2.			
3.	Accrual of discount	105,694	901,504
4.	Unrealized valuation increase (decrease)	(4,629)	
5.	Total gain (loss) on disposals		
6.	Deduct consideration for bonds and stocks disposed of		
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		2,337
10.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9)		
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	243,451,148	222,828,946

SCHEDULE D - PART 1B

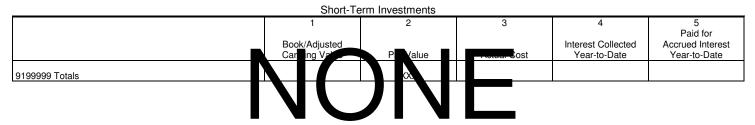
Showing the Acquisitions, Dispositions and Non-Trading Activity
During the Current Quarter for all Bonds and Preferred Stock by NAIC Designation

Builly	g the Current Quarter to	2	3	Designation	5	6	7	8
	Book/Adjusted		3	4	5 Book/Adjusted	ь Book/Adjusted	Book/Adjusted	8 Book/Adjusted
	Carrying Value	Acquisitions	Dispositions	Non-Trading Activity	Carrying Value	Carrying Value	Carrying Value	Carrying Value
	Beginning	During	During	During	End of	End of	End of	December 31
NAIC Designation	of Current Quarter	Current Quarter	Current Quarter	Current Quarter	First Quarter	Second Quarter	Third Quarter	Prior Year
BONDS								
1. NAIC 1 (a)	138,526,263	21,682,975	1,631,597	(2,948,570)	155,629,071			138,526,263
2. NAIC 2 (a)	140,892,993	350,703,248	356,577,140	850,892	135,869,993			140,892,993
3. NAIC 3 (a)	2,529,021		1,000,204	,	2,375,892			2,529,021
4. NAIC 4 (a)	136,049			1,269,237	1,405,286			136,049
5. NAIC 5 (a)	745,687		6, 193	133,416	872,910			745,687
6. NAIC 6 (a)	77,165			(4,740)	72,425			77,165
7. Total Bonds	282,907,179	372,386,223	359,215,134	147,309	296,225,577			282,907,179
PREFERRED STOCK								
8. NAIC 1								
9. NAIC 2								
10. NAIC 3								
11. NAIC 4								
12. NAIC 5								
13. NAIC 6								
14. Total Preferred Stock								
15. Total Bonds and Preferred Stock	282,907,179	372,386,223	359,215,134	147,309	296,225,577			282,907,179

a) Book/Adjusted Carrying Value column for the end of the current reporting period includes the following amount of non-rated short-term and cash equivalent bonds by NAIC designation: NAIC 1 \$; NAIC 2 \$52,774,429 ; NAIC 3 \$
---	-----------------------------------

NAIC 4 \$; NAIC 5 \$......; NAIC 6 \$......

SCHEDULE DA - PART 1



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	4,995,929	16,484,333
2.	Cost of short-term investments acquired		
3.	Accrual of discount	4,072	65,530
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals		66
6.	Deduct consideration received on disposals	5,000,001	43,999,932
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)		4,995,929
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)		4,995,929

Schedule DB - Part A - Verification - Options, Caps, Floors, Collars, Swaps and Forwards NONE

Schedule DB - Part B - Verification - Futures Contracts $N\ O\ N\ E$

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 $N\ O\ N\ E$

Schedule DB - Verification - Book/Adjusted Carrying Value, Fair Value and Potential Exposure of Derivatives

NONE

SCHEDULE E - VERIFICATION

(Cash Equivalents)

	, , ,	1	2
		Year To Date	Prior Year Ended December 31
1.	Book/adjusted carrying value, December 31 of prior year	55,082,304	96, 153, 220
2.	Cost of cash equivalents acquired	343,053,885	1,413,157,613
3.	Accrual of discount	107,900	396,635
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	(1,296)	89
6.	Deduct consideration received on disposals	345,468,364	1,454,625,253
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)	52,774,429	55,082,304
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	52,774,429	55,082,304