QUARTERLY STATEMENT

OF THE

MML Bay State Life Insurance Company

TO THE

Insurance Department

OF THE

STATE OF

FOR THE QUARTER ENDED JUNE 30, 2015

LIFE AND ACCIDENT AND HEALTH

2015



LIFE AND ACCIDENT AND HEALTH COMPANIES - ASSOCIATION EDITION

QUARTERLY STATEMENT

AS OF JUNE 30, 2015 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		Prior)	State of Domicile or Port of E	Entry Connecticut			
Country of Domicile		United States o	f America				
Incorporated/Organized	04/01/1935		Commenced Business	07/01/1894			
Statutory Home Office	100 Bright Meadow	Boulevard ,		Enfield, CT, US 06082			
, <u> </u>	(Street and Nu		(City or	Town, State, Country and Zip Code)			
Main Administrative Office	-	1295 State					
	Springfield , MA, US 01111	(Street and N	lumber)	413-788-8411			
(City o	or Town, State, Country and Zip C	Code)	(A	rea Code) (Telephone Number)			
Mail Address	1295 State Street			Springfield , MA, US 01111			
	(Street and Number or P.		(City or	Town, State, Country and Zip Code)			
Primary Location of Books a	nd Records	1295 State	Street				
r mary 200dion of 200ko di		(Street and N					
(City of	Springfield , MA, US 01111	, , , , , , , , , , , , , , , , , , ,	//	413-788-8411			
(City c	r Town, State, Country and Zip C	ode)	(A	rea Code) (Telephone Number)			
Internet Website Address		www.massmu	utual.com				
Statutory Statement Contact	Tammy	A. Peatman	,	413-744-6327			
	tpeatman@massmutual.com	(Name)		(Area Code) (Telephone Number)			
	(E-mail Address)	,		413-226-4086 (FAX Number)			
President and Chief		OFFICE	ERS				
Executive Officer	Roger Willian	n Crandall	Treasurer	Todd Garett Picken			
Secretary	Pia Denise F	Flanagan	Apointed Actuary	Douglas Wright Taylor #			
Chief Fin	Executive Vice President and ancial Officer Executive Vice President	OTHE Mark Douglas Roellig Exe General C	cutive Vice President and	Michael Robert Fanning Executive Vice President			
Roger William (Crandall - Chairman	DIRECTORS OR Michael Robe		Michael Thomas Rollings			
Mark Do	uglas Roellig						
State of County of	Massachusetts Hampden	SS:					
	Патраст						
all of the herein described a statement, together with rela condition and affairs of the s- in accordance with the NAIC rules or regulations require respectively. Furthermore, t	ssets were the absolute propertied exhibits, schedules and explaid reporting entity as of the reportance Annual Statement Instructions a differences in reporting not rene scope of this attestation by the	y of the said reporting entity, to inations therein contained, and riting period stated above, and and Accounting Practices and lated to accounting practices e described officers also inclu	ree and clear from any liens exed or referred to, is a full a of its income and deductions Procedures manual except to and procedures, according des the related correspondin-	orting entity, and that on the reporting period stated above, or claims thereon, except as herein stated, and that this nd 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 filling with the NAIC, when required, that is an be requested by various regulators in lieu of or in addition			
Roger William President and Chief E		Pia Denise F Secreta	•	Todd Garett Picken Treasurer			
Subscribed and sworn to bef			a. Is this an original filing b. If no, 1. State the amendme 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	169.256.115	Nondamilied 7133ct3	169,256,115	144,280,400
		109,230,113		109,230,113	144,200,400
۷.	Stocks: 2.1 Preferred stocks				
2	2.2 Common stocks				
3.	Mortgage loans on real estate: 3.1 First liens	2 020 024		3,928,024	4 170 201
	3.2 Other than first liens				
4.	Real estate:				
	4.1 Properties occupied by the company (less \$				
	encumbrances)				
	4.2 Properties held for the production of income (less				
	\$ encumbrances)				
	4.3 Properties held for sale (less \$				
	encumbrances)				
5.	Cash (\$(1,273,436)), cash equivalents				
	(\$93,485,134) and short-term				
	investments (\$	109,693,358		109,693,358	110,736,395
6.	Contract loans (including \$ premium notes)	94,808,683		94,808,683	94,020,256
7.	Derivatives				
8.	Other invested assets				
9.	Receivables for securities	2,095,834		2,095,834	
10.	Securities lending reinvested collateral assets				
11.	Aggregate write-ins for invested assets				
12.	Subtotals, cash and invested assets (Lines 1 to 11)			379,782,014	
	Title plants less \$ charged off (for Title insurers	, ,		, ,	, ,
	only)				
14.	Investment income due and accrued			4,103,901	
15.	Premiums and considerations:				
	15.1 Uncollected premiums and agents' balances in the course of collection.	798		798	1.079
	15.2 Deferred premiums, agents' balances and installments booked but				,
	deferred and not yet due (including \$				
	earned but unbilled premiums)	(1.327.509)		(1.327.509)	(2 114 733)
	·	(1,027,000)		(1,021,000)	(2,111,700)
16	Reinsurance:				
10.	16.1 Amounts recoverable from reinsurers	1 044 890		1,044,890	7,224,626
	16.2 Funds held by or deposited with reinsured companies			1,044,000	7,224,020
	16.3 Other amounts receivable under reinsurance contracts			25,247,315	
17.	Amounts receivable relating to uninsured plans			20,247,010	
	Current federal and foreign income tax recoverable and interest thereon			2,074,159	
	Net deferred tax asset			4,334,567	4,454,553
19.	Guaranty funds receivable or on deposit			273,499	281 , 185
20.	Electronic data processing equipment and software				
21.	Furniture and equipment, including health care delivery assets				
	(\$)				
22.	Net adjustment in assets and liabilities due to foreign exchange rates				
23.	Receivables from parent, subsidiaries and affiliates			155,709	150 , 163
24.	Health care (\$) and other amounts receivable				
25.	Aggregate write-ins for other than invested assets				509,448
26.	Total assets excluding Separate Accounts, Segregated Accounts and	410 466 500	2 777 170	41E 600 343	206 121 006
07	Protected Cell Accounts (Lines 12 to 25)	419,466,522	3,777,179	415,689,343	396, 121, 986
27.	From Separate Accounts, Segregated Accounts and Protected Cell Accounts	4,290,287,592		4,290,287,592	4,274,843,259
28.	Total (Lines 26 and 27)	4,709,754,114	3,777,179	4,705,976,935	4,670,965,245
	DETAILS OF WRITE-INS	, , ,	, ,	, , ,	
1101.					
1102.					
1102.					
1198.	Summary of remaining write-ins for Line 11 from overflow page				
1199.	Totals (Lines 1101 through 1103 plus 1198)(Line 11 above) Miscellaneous other assets				EUU 110
2502.					
2503.					
2598.	Summary of remaining write-ins for Line 25 from overflow page				
2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)				509,448

LIABILITIES, SURPLUS AND OTHER FUNDS

	LIABILITIES, SOITI LOS AIND STITLITTO	1 Current	2 December 31
1.	Aggregate reserve for life contracts \$134,321,408 less \$ included in Line 6.3	Statement Date	Prior Year
2.	(including \$ Modco Reserve)		
4.	Liability for deposit-type contracts (including \$ Modco Reserve)		
	4.1 Life		
5.	Policyholders' dividends \$ and coupons \$ due and unpaid due		
	Provision for policyholders' dividends and coupons payable in following calendar year - estimated amounts: 6.1 Dividends apportioned for payment (including \$ Modco)		
	6.2 Dividends not yet apportioned (including \$		
	Amount provisionally held for deferred dividend policies not included in Line 6		
	\$ discount; including \$ accident and health premiums	2,172	1,391
	Contract liabilities not included elsewhere: 9.1 Surrender values on canceled contracts		
!	9.2 Provision for experience rating refunds, including the liability of \$ accident and health experience rating refunds of which \$ is for medical loss ratio rebate per the Public Health		
	Service Act	13, 197, 965	13,885,522
	ceded	5,146,893	3,952,504
	9.4 Interest Maintenance Reserve		
	\$ and deposit-type contract funds \$		
12.	Commissions and expense allowances payable on reinsurance assumed		
13.	Transfers to Separate Accounts due or accrued (net) (including \$(765,939) accrued for expense allowances recognized in reserves, net of reinsured allowances)	15,711,847	16,563,643
	Taxes, licenses and fees due or accrued, excluding federal income taxes Current federal and foreign income taxes, including \$	231,044	294,793
15.2	Net deferred tax liability		
	Unearned investment income		
18. 19.	Amounts held for agents' account, including \$ agents' credit balances	609 066	68 774
20.	Net adjustment in assets and liabilities due to foreign exchange rates		
	Liability for benefits for employees and agents if not included above		
	Dividends to stockholders declared and unpaid		
	24.01 Asset valuation reserve		
	24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers		
	24.04 Payable to parent, subsidiaries and affiliates		2,823,732
	24.06 Liability for amounts held under uninsured plans		
	24.08 Derivatives		
	24.09 Payable for securities		
	24.11 Capital notes \$	367,280	288,794
26.	Total liabilities excluding Separate Accounts business (Lines 1 to 25)	194,025,322 4,290,287,592	184,428,288 4,274,843,259
28.	Total liabilities (Lines 26 and 27)	4,484,312,914	4,459,271,547
	Common capital stock Preferred capital stock		2,500,200
31.	Aggregate write-ins for other than special surplus funds		
33.	Gross paid in and contributed surplus	143,736,914	143,736,914
	Aggregate write-ins for special surplus funds		
	Less treasury stock, at cost: 36.1 shares common (value included in Line 29 \$		
;	36.2shares preferred (value included in Line 30 \$		
38.	Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement)	221,664,021	211,693,698
	Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) DETAILS OF WRITE-INS	4,705,976,935	4,670,965,245
2501.	Miscellaneous liabilities Funds awaiting escheat	185,394	182,782
2503.			
	Summary of remaining write-ins for Line 25 from overflow page	367,280	288,794
3101.			, -
3103.			
	Summary of remaining write-ins for Line 31 from overflow page		
3403.			
	Summary of remaining write-ins for Line 34 from overflow page		

SUMMARY OF OPERATIONS

		1	2	3
		Current Year	Prior Year	Prior Year Ended
		To Date	To Date	December 31
1.	Premiums and annuity considerations for life and accident and health contracts	15,090,305	13,435,723	24,111,798
	Considerations for supplementary contracts with life contingencies.			, , ,
3.	Net investment income	6,042,369		11,616,274
4.	Amortization of Interest Maintenance Reserve (IMR)	98,772	93,047	178,480
5.	Separate Accounts net gain from operations excluding unrealized gains or losses			·
	Commissions and expense allowances on reinsurance ceded		2.749.720	5,522,840
7.	Reserve adjustments on reinsurance ceded	(9,626,583)	(6,973,053)	
8.	Miscellaneous Income:	(0,020,000)	(0,0.0,000)	
0.	8.1 Income from fees associated with investment management, administration and contract			
	guarantees from Separate Accounts	37 952 817	39,982,601	72,029,070
	8.3 Aggregate write-ins for miscellaneous income	(660, 136)	(837.619)	(856,658)
9.	Totals (Lines 1 to 8.3)	51,703,350	54,286,588	99.787.087
			, ,	, ,
	Death benefits		21,383,414	38,026,639
11.	Matured endowments (excluding guaranteed annual pure endowments)			
12.	Annuity benefits		458,940	
13.	Disability benefits and benefits under accident and health contracts	301,971	149,833	242,492
14.	Coupons, guaranteed annual pure endowments and similar benefits			
15.	Surrender benefits and withdrawals for life contracts	24,234,797	26,852,935	56,099,072
16.	Group conversions			
17.	Interest and adjustments on contract or deposit-type contract funds	294,897	530 , 164	726,967
18.	Payments on supplementary contracts with life contingencies	L		
	Increase in aggregate reserves for life and accident and health contracts	2,649,030	679,685	2,168,416
20.	Totals (Lines 10 to 19)	, ,	50,054,971	98,148,675
	· · · · · · · · · · · · · · · · · · ·			
21.	Commissions on premiums, annuity considerations, and deposit-type contract funds (direct business only)	1 720 057	1,711,140	3.468.861
00	Commissions and expanse allowaness as reinsurance assume!	1,100,001	1,111,140	, ,
22.	Commissions and expense allowances on reinsurance assumed		F 407 440	10 210 005
23.	General insurance expenses	3,9//,981	5,107,443	10,318,025
24.	Insurance taxes, licenses and fees, excluding federal income taxes	611,184	684,427	1,207,597
25.	Increase in loading on deferred and uncollected premiums	(2,768)	(3,268)	(824)
26.	Net transfers to or (from) Separate Accounts net of reinsurance	(23,324,890)	(16,384,004)	(38,746,685)
27.	Aggregate write-ins for deductions	22,994	30,159	172,908
28.	Totals (Lines 20 to 27)	38,264,068	41,200,868	74,568,557
29.	Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus			
	Line 28)	13,439,282	13,085,720	25,218,530
30.	Dividends to policyholders	, , ,	, ,,	, ,
31.	Net gain from operations after dividends to policyholders and before federal income taxes (Line 29			
01.	minus Line 30)	13,439,282	13,085,720	25,218,530
32.	Federal and foreign income taxes incurred (excluding tax on capital gains)	3,218,579	3,519,887	9,577,811
-	Net gain from operations after dividends to policyholders and federal income taxes and before	0,210,070	0,010,001	0,017,011
33.		10,220,703	9,565,833	15,640,719
0.4	realized capital gains or (losses) (Line 31 minus Line 32)	10,220,703		15,040,713
34.	Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital			
	gains tax of \$	(40, 547)	(400, 070)	400 045
	transferred to the IMR)	(10,547)	(126,672)	160,945
35.	Net income (Line 33 plus Line 34)	10,210,156	9,439,161	15,801,664
	CAPITAL AND SURPLUS ACCOUNT			
36.	Capital and surplus, December 31, prior year	211,693,698	196,021,268	196,021,268
37.	Net income (Line 35)	10,210,156	9,439,161	15,801,664
	Change in net unrealized capital gains (losses) less capital gains tax of \$			
	Change in net unrealized capital gatine (lesses) less capital gatine tax or \$\psi\$. Change in net unrealized foreign exchange capital gain (loss)			
40.	Change in net deferred income tax	(701 972)	724 672	3,163,701
40.	Change in nonadmitted assets	671 007	(225,070)	
	=			
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			
44.	Change in asset valuation reserve	(119,847)	94,795	3,206
45.	Change in treasury stock			
46.	Surplus (contributed to) withdrawn from Separate Accounts during period			
47.	Other changes in surplus in Separate Accounts Statement			
48.	Change in surplus notes			
49.	Cumulative effect of changes in accounting principles			
	Capital changes:			
50.	50.1 Paid in			
F.4	50.3 Transferred to surplus			
51.	Surplus adjustment:			
	51.1 Paid in			
	1 (
	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)	9,970,323	10,023,559	15,672,430
	Capital and surplus, as of statement date (Lines 36 + 54)	221,664,021	206,044,827	211,693,698
55.	DETAILS OF WRITE-INS	221,004,021	200,044,021	211,000,000
00.004		(600,040)	(000 044)	(4 600 404)
	Sub advisory fees		, , ,	
	Other miscellaneous income	(37,924)		832,806
	Summary of remaining write-ins for Line 8.3 from overflow page			
	Totals (Lines 08.301 through 08.303 plus 08.398) (Line 8.3 above)	(660, 136)	(837,619)	(856,658)
		22,994	30 , 159	172,908
				-,
	Summary of remaining write-ins for Line 27 from overflow page			
	Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	22,994	30,159	172,908
	, , , , , , , , , , , , , , , , , , , ,	· · · · · · · · · · · · · · · · · · ·	,	112,300
	Summary of remaining write-ins for Line 53 from overflow page	ļ		
5399.	Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)			
-				

CASH FLOW

49.277,875 56,653,715 10 5 Benefit and loss related payments	Ended er 31
2. Net investment income	
32,746,737 39,056,643 6 4. Total (Lines 1 to 3)	,648,662
4. Total (Lines 1 to 3)	1,252,71
5. Benefit and loss related payments	7,620,228
6. Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts (22,473,093) (19,221,125) (3 7. Commissions, expenses paid and aggregate write-ins for deductions 5,142,700 7,853,545 11 8. Dividends paid to policyholders (145,034) 1,566,597 11 9. Federal and foreign income taxes paid (recovered) net of \$ 178,222 tax on capital gains (losses) (145,034) 1,566,597 11 10. Total (Lines 5 through 9) 29,082,994 43,103,471 8 11. Net cash from operations (Line 4 minus Line 10) 20,194,881 13,550,244 11 Cash from Investments 12. Proceeds from investments sold, matured or repaid: 12.1 Bonds 12.2 Stocks 12.3 Mortgage loans 239,938 275,184 12.4 Real estate 12.5 Other invested assets (1,590,630) (279,409) 12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 33 13. Cost of investments acquired (long-term only): 13.1 Bonds 33,494,481 12,602,195 33 13.4 Real estate 13.5 Other invested assets (1,759,755) 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments applications (1,759,755) 13.7 Total investments applications (1,759,755) 13.7 Total investments applications (1,759,755) 3	3,521,60
7. Commissions, expenses paid and aggregate write-ins for deductions	,943,536
8. Dividends paid to policyholders 9. Federal and foreign income taxes paid (recovered) net of \$	3,528,92
9. Federal and foreign income taxes paid (recovered) net of \$	5,276,052
gains (losses) (145,034) 1,566,597	
10. Total (Lines 5 through 9)	
Cash from operations (Line 4 minus Line 10) 20,194,881 13,550,244 11 Cash from Investments 12. Proceeds from investments sold, matured or repaid: 12.1 Bonds 8,800,630 16,908,836 3 12.2 Stocks 239,938 275,184 275,184 12.4 Real estate 239,938 275,184 1 12.5 Other invested assets 10 13 1 12.6 Net gains or (losses) on cash, cash equivalents and short-term investments 10 13 13 12.7 Miscellaneous proceeds (1,590,630) (279,409) 16,904,624 .3 13. Cost of investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 .3 13.1 Bonds 33,494,481 12,602,195 .3 13.2 Stocks 33,494,481 12,602,195 .3 13.5 Other invested assets (1,759,755) 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	9,366,97
Cash from Investments 12. Proceeds from investments sold, matured or repaid: 12.1 Bonds 8,800,630 16,908,836 3 12.2 Stocks 239,938 275,184 12.4 Real estate 12.5 Other invested assets 10 13 12.7 Miscellaneous proceeds (1,590,630) (279,409) 12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 3 13. Cost of investments acquired (long-term only): 33,494,481 12,602,195 3 13.4 Real estate 33,494,481 12,602,195 3 13.5 Other invested assets (1,759,755) (1,759,755) 13.6 Miscellaneous applications (1,759,755) 12,602,195 3 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	7,057,644
12. Proceeds from investments sold, matured or repaid: 12.1 Bonds	6,463,96
12.1 Bonds	
12.2 Stocks 239,938 .275,184 12.3 Mortgage loans 239,938 .275,184 12.4 Real estate	
12.2 Stocks 239,938 .275,184 12.3 Mortgage loans 239,938 .275,184 12.4 Real estate	3,473,422
12.4 Real estate 12.5 Other invested assets 12.5 Other invested assets 10 12.6 Net gains or (losses) on cash, cash equivalents and short-term investments 10 12.7 Miscellaneous proceeds (1,590,630) (279,409) 12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 3 13. Cost of investments acquired (long-term only): 33,494,481 12,602,195 3 13.2 Stocks 33,3494,481 12,602,195 3 13.4 Real estate 13.5 Other invested assets (1,759,755) 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	
12.4 Real estate 12.5 Other invested assets 12.6 Net gains or (losses) on cash, cash equivalents and short-term investments 10 13 12.7 Miscellaneous proceeds (1,590,630) (279,409) 12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 3 13. Cost of investments acquired (long-term only): 33,494,481 12,602,195 3 13.2 Stocks 33,3494,481 12,602,195 3 13.4 Real estate 13.5 Other invested assets (1,759,755) 13.6 Miscellaneous applications (1,759,755) 12,602,195 3 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	504,026
12.5 Other invested assets 12.6 Net gains or (losses) on cash, cash equivalents and short-term investments 12.7 Miscellaneous proceeds (1,590,630) (279,409) 12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 3 13. Cost of investments acquired (long-term only): 13.1 Bonds 33,494,481 12,602,195 31 13.2 Stocks 13.3 Mortgage loans 13.4 Real estate 13.5 Other invested assets 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	
12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	
12.7 Miscellaneous proceeds (Lines 12.1 to 12.7) (279,409) 12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 3 13. Cost of investments acquired (long-term only): 13.1 Bonds 33,494,481 12,602,195 31 13.2 Stocks 13.3 Mortgage loans 13.4 Real estate 13.5 Other invested assets (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 31	
12.8 Total investment proceeds (Lines 12.1 to 12.7) 7,449,948 16,904,624 3 13. Cost of investments acquired (long-term only): 13.1 Bonds 33,494,481 12,602,195 3 13.2 Stocks 13.3 Mortgage loans 13.4 Real estate 13.5 Other invested assets (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	(183,94
13. Cost of investments acquired (long-term only): 13.1 Bonds	
13.1 Bonds	5,700,00
13.2 Stocks 13.3 Mortgage loans 13.4 Real estate 13.5 Other invested assets 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 31	2 050 01
13.3 Mortgage loans 13.4 Real estate 13.5 Other invested assets 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 31,734,726 31,734,726 31,734,726	
13.4 Real estate 13.5 Other invested assets 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	
13.5 Other invested assets 13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 3	
13.6 Miscellaneous applications (1,759,755) 13.7 Total investments acquired (Lines 13.1 to 13.6) 31,734,726 12,602,195 36	
13.7 Total investments acquired (Lines 13.1 to 13.6)	
	(
14. Net increase (or decrease) in contract loans and premium notes	3,259,12
	(880,90
15. Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	3,415,342
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	.(684,63
16.5 Dividends to stockholders	
16.6 Other cash provided (applied)	383,68
17. Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	(300,95
RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS	
	9,578,34
19. Cash, cash equivalents and short-term investments:	. , , • •
	I,158,04
	0,736,39
15.2 End of period (Line 10 plus Line 15.1)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
ote: Supplemental disclosures of cash flow information for non-cash transactions:	
20.0001. Bond conversions and refinancing	, -
20.0002. Interest capitalization for long-term debt	1,5

EXHIBIT 1

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

	DIRECT PREMIUMS AND DEPOSIT-TYPE (ONTRACTS	2	3
		Current Year	Prior Year	Prior Year Ended
		To Date	To Date	December 31
		10 5410	10 5410	Doodinoor or
.	ladinatulal life			
1.	Industrial life			
2.	Ordinary life insurance	20 , 192 ,830	21,316,581	42,217,666
3.	Ordinary individual annuities	10,470	44,967	72,897
4.	Credit life (group and individual)			
٦.	order ine (group and individual)			
_	Group life insurance	710,000	(2.027.115)	171 041
5.	Group life insurance	1 10,209	(3,837,113)	1/1,341
6.	Group annuities			
7.	A & H - group			
8.	A & H - credit (group and individual)			
0.	77 a 11 Group and marriadal)	-		
	A O III - II			
9.	A & H - other			
10.	Aggregate of all other lines of business			
11.	Subtotal	20,921,569	17,524,433	42,461,904
12.	Deposit-type contracts			
	20p001.			
40	Tatal	20,921,569	17,524,433	42,461,904
13.	Total	20,321,303	17,324,433	42,401,304
	DETAILS OF WRITE-INS			
1001.				
1002.				
1003.				
1003.		† 		
1098.	Summary of remaining write-ins for Line 10 from overflow page			
1099.	Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)			
		•		

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- Note 33 Premium and Annuity Considerations Deferred and Uncollected
- Note 34 Separate Accounts
- Note 35 Loss/Claim Adjustment Expenses

Note 1 - Summary of Significant Accounting Policies

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 of the National Association of Insurance Commissioners (NAIC) and the accounting practices prescribed or permitted by the State of Connecticut Insurance Department (the Department).

- b. Use of estimates in the preparation of the financial statements No significant changes
- c. Accounting policy:
 - (1-5) No significant changes
 - (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 significant changes

Note 2 - Accounting Changes and Corrections of Errors

 For the six months ended June 30, 2015 and 2014, 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:

In December 2014, the NAIC issued Statement of Statutory Accounting Principles (SSAP) No. 40 Revised, "Real Estate Investments" (SSAP No. 40R), which was effective January 1, 2015, and requires that single real estate property investments that are directly and wholly-owned through a limited liability company (LLC) be accounted for, and reported as, directly owned real estate provided that certain criteria are met. For investments meeting the criteria that were previously reported within SSAP No. 48, "Joint Ventures, Partnerships and Limited Liability Companies" (SSAP No. 48), and owned as of the effective date, this guidance required that the Company recognize a cumulative effect of a change in accounting principle as if the entity had followed the revisions of SSAP No. 40R since acquisition of the property. The adoption of this guidance did not have a significant impact on the Company's valuation of its assets.

Note 3 - Business Combinations and Goodwill - No significant changes

Note 4 - Discontinued Operations - No significant changes

Note 5 - Investments

- a. Mortgage loans No significant changes
- b. Debt restructuring No significant changes
- c. Reverse mortgages No significant changes
- d. Loan-backed and structured securities:
 - (1) No significant changes
 - (2) Loan-backed and structured securities recognized no other-than-temporary impairments for the three months ended June 30, 2015 or March 31, 2015.
 - (3) The Company had no impaired structured securities where the present value of cash flows expected to be collected is less than the amortized cost basis for the three months ended June 30, 2015.
 - (4) As of June 30, 2015, 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 (in millions):
 - a. The aggregate amount of unrealized losses:

1.	Less than 12 months	\$ -
2.	12 months or longer	\$ -

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

1.	Less than 12 months	\$ 20
2.	12 months or longer	\$ 4

- (5) No significant changes
- e. Repurchase agreements No significant changes

- f. The Company does not have any investments in real estate.
- g. Low income housing tax credit properties No significant changes
- h. Restricted assets No significant changes
- i. Working capital finance investments The Company does not invest in working capital finance investments.
- j. The Company reports assets and liabilities as gross in the financial statements without offsetting.
- k. Structured notes The Company did not have any investments in structured notes.

Note 6 - Joint Ventures, Partnerships and LLCs - No significant changes

Note 7 - Investment Income - No significant changes

Note 8 - Derivative Instruments - No significant changes

Note 9 - Income Taxes - No significant changes

Note 10 - Information Concerning Parent, Subsidiaries and Affiliates - No significant changes

Note 11 - Debt

- a. No significant changes
- 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 - No significant changes

Note 13 - Capital and Surplus, Shareholders' Dividend Restrictions and Quasi-Reorganizations - No significant changes

Note 14 - Liabilities, Contingencies and Assessments

- a. Contingent commitments No significant changes
- b. Assessments No significant changes
- c. Gain contingencies No significant changes
- d. Claims related to extra contractual obligations No significant changes
- e. All other contingencies:

The Company is involved in litigation arising in the normal course of business, which seeks both compensatory and 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.

f. 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 significant changes

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

Note 17 – Sale, Transfer and Servicing of Financial Assets and Extinguishments of Liabilities a. Transfers of receivables reported as sales – No significant changes

- Transfer and Servicing of Financial Assets:
 - (1) The Company did not participate in securities lending as of June 30, 2015 or December 31, 2014.
 - The Company did not have any servicing assets or liabilities in 2015 or 2014.
 - (3) The Company did not have any servicing assets or liabilities in 2015 or 2014.
 - The Company did not have interests that continue to be held by a transferor in securitized financial (4) assets in 2015 or 2014.
 - The Company did not have any transfers of financial assets accounted for as secured borrowing in 2015 (5) or 2014.
 - The Company did not have any transfers of receivables with recourse in 2015 or 2014. (6)
 - (7) Repurchase agreements no significant changes
- Wash sales:
 - In the course of the Company's investment management activities, securities may be sold and (1) reacquired within 30 days of the sale date.
 - The Company did not sell any securities with the NAIC Designation 3 or below through the second (2)quarter ended June 30, 2015 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 significant changes

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

Note 20 - Fair Value Measurements

Fair value as defined and unique level descriptions – No significant changes

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

	June 30, 2015								
	Level 1		L	evel 2	Level 3			Total	
				(In Mi	llions)				
Financial assets: Separate account assets ⁽¹⁾	\$	969	\$	2,265	\$	-	\$	3,234	
Total financial assets carried at fair value	\$	969	\$	2,265	\$	-	\$	3,234	

^{(1)\$1,056} million of book value separate account assets are not carried at fair value and, therefore, are not included in this table.

For the six months ended June 30, 2015 there were no significant transfers between Level 1 and Level 2.

			L	ecembe	er 31, 2014			
	Level 1		L	evel 2	Level 3		Tota	
				(In Millions)				
Financial assets:								
Separate account assets ⁽¹⁾	\$	971	\$	2,246	\$	-	\$	3,217
Total financial assets carried								
at fair value	\$	971	\$	2,246	\$	-	\$	3,217

^{(1)\$1,058} million of book value separate account assets are not carried at fair value and, therefore, are not included in this table.

For the year ended December 31, 2014 there were no significant transfers between Level 1 and Level 2.

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

	Begin	ning			Gains	;	Gains							Endir	ng
	Dalance as of 01/01/2015		Tra	nsfers	(Losses) in		(Losses) in						Balance as of		
			In	Out	Net Inco	me	Surplus	Purchases		Issuances		Sales	Settlements	06/30/2015	
							(In I	Millions)							
Financial assets:	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	\$	-	\$ -	\$ -	\$	
Total financial assets	\$	-	\$ -	\$ -	\$	-	\$ -	\$	-	\$	_	\$ -	\$ -	\$	

	Beginning			Gains	Gains					Ending
	Balance as of	Tra	nsfers	(Losses) in	(Losses) in					Balance as of
	01/01/2014	In	Out	Net Income	Surplus	Purchases	Issuances	Sales	Settlements	12/31/2014
					(In	Millions)				
Financial assets:										
Separate account assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total financial assets	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

- 3. Fair value hierarchy classifications No significant changes
- 4. Valuation techniques and inputs No significant changes
- 5. Derivative assets and liabilities fair value disclosures No significant changes
- b. The Company provides additional fair value information in Notes 1, 5, 21, 32 and 34.
- c. The following presents a summary of the carrying values and fair values of the Company's financial

						June 3	80, 2	015			
		gregate r Value		dmitted Assets	Le	evel 1	L	evel 2	Le	vel 3	Not Practicable (Carrying Value)
						(In M	illior	าร)			
Financial assets:											
Bonds:			•		•		•		•		•
U. S. government and agencies	\$	4	\$	4	\$	-	\$	4	\$	-	\$ -
Special revenue		407		400		-		454		- 40	-
Industrial and miscellaneous		167		163		-		154		13	-
Parent, subsidiaries and affiliates		2 4		2		-		2		4	-
Mortgage loans - residential		4		4		-		-		4	-
Cash, cash equivalents and		110		110		(1)		111			
short-term investments		4,308		4,290		(1) 969		3,319		20	-
Separate account assets		4,306		4,290		909		3,319		20	-
Financial liabilities:		2		3						2	
Individual annuity contracts		10		10		_		_		10	_
Supplementary contracts		10		10		-		-		10	-
					D	ecembe	er 31	, 2014			
											Not
											Practicable
		gregate	Ad	dmitted							(Carrying
	Fai	r Value	P	Assets	Le	evel 1	L	evel 2	Le	vel 3	Value)
						(In M	illior	าร)			
Financial assets:											
Bonds:											
U. S. government and agencies	\$	4	\$	4	\$	-	\$	4	\$	=	\$ -
Special revenue		-		-		-		-		-	-
Industrial and miscellaneous		145		138		-		132		13	-
Parent, subsidiaries and affiliates		2		2		-		2		-	-
Mortgage loans - residential		4		4		-		-		4	-
Cash, cash equivalents and				444		(0)		440			
short-term investments		111		111		(2)		113		-	-
Separate account assets		4,305		4,275		971		3,313		21	-
Financial liabilities:		•		•						^	
Individual annuity contracts		2		3		-		-		2	-
Supplementary contracts		6		6		-		-		6	-

d. For the six months ended June 30, 2015, the Company had no investments where it was not practicable to estimate fair value.

Note 21 - Other Items

- a. Extraordinary items No significant changes
- b. Troubled debt restructuring No significant changes
- c. Other disclosures and unusual items

Business risks

The Company operates in a business environment subject to various risks and uncertainties. Such risks and uncertainties include, but are not limited to, currency exchange risk, interest rate risk and credit risk. Interest rate risk is the potential for interest rates to change, which can cause fluctuations in the value of investments and amounts due to policyholders. To the extent that fluctuations in interest rates cause the duration of assets and

liabilities to differ, the Company mitigates its exposure to this risk by, among other things, asset/liability management techniques that account for the cash flow characteristics of the assets and liabilities. This quarterly risks and uncertainties disclosure should be read in conjunction with the statutory disclosure in the Company's 2014 year end annual financial statements.

Investment and interest rate risks

Investment earnings can be influenced by a number 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.

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 slower amortization or prepayment speeds than 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.

Credit and other market risks

Credit risk is the risk that issuers of investments owned by the Company may default or that other parties may not be able to pay amounts due to the Company. The Company manages its investments to limit credit risk by diversifying its portfolio among various security types and industry sectors as well as purchasing credit default swaps to transfer some of the risk.

The Company has investments in European debt. Underlying concerns over the macro-economic outlook and debt burden of certain parts of the Eurozone, and other countries remain, but the Company does not have significant exposure to the debt of companies and governments in these countries. With a weaker economic outlook in certain parts of the world it may lead to an increase in reported default rates or contagion to stock or other markets around the world. These events could have impacts on the broader environment resulting in volatility in other world economies and financial markets.

- d. Business interruption insurance recoveries No significant changes
- e. State transferrable tax credits No significant changes
- f. Subprime mortgage related risk exposure:
 - (1) No significant changes
 - (2) No significant changes
 - (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:

Six Months Ended

				June 30	0, 2015			June 30, 2015
		Ac	tual	Carry	ing	F	air	
Αľ	t-A:	C	ost	Valu	ie	Va	alue	OTTI
					(Ir	n Millio	ns)	
a.	Residential mortgage-backed securities	\$	4	\$	3	\$	4	\$ -
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	\$	4	\$	3	\$	4	\$ -
				June 30	0, 2015			Six Months Ended June 30, 2015
		Ac	tual	Carry	ing	F	air	
Sı	ubprime:	С	ost	Valu	ie	Va	alue	OTTI
					(Ir	n Millio	ns)	
a.	Residential mortgage-backed securities	\$	4	\$	2	\$	3	\$ -
b.	Commercial mortgage-backed securities		-		-		-	-
C.	Collateralized debt obligations		-		-		-	-
d.	Structured securities		-		-		-	-
e.	Equity investments in subsidiary		-		-		-	-
	and controlled affiliates		-		-		-	-
f.	Other assets		-		-		-	-
a.	Total	\$	4	\$	2	\$	3	\$ -

		D	ecembe	r 31, 20)14		December 3	
	Ac	tual	Carryi	ng	F	air		
Alt-A:	Cost		Value		Value		OTTI	
		(In Millions)						
a. Residential mortgage-backed securities	\$	4	\$	3	\$	4	\$	-
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	\$	4	\$	3	\$	4	\$	-

Year Ended

		D	ecembe	r 31, 20	14		Year Ende December 2014	
	Ac	tual	Carryi	ng	F	air		
Subprime:	C	ost	Value		Value		OTTI	
		(In Millions)						
a. Residential mortgage-backed securities	\$	4	\$	2	\$	3	\$	-
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	\$	4	\$	2	\$	3	\$	

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

Note 22 - Events Subsequent

The Company has evaluated subsequent events through August 11, 2015, the date the financial statements were available to be issued. No events have occurred subsequent to the balance sheet date and before the date of evaluation that would require disclosure.

Note 23 - Reinsurance - No significant changes

Note 24 - Retrospectively Rated Contracts and Contracts Subject to Redetermination - No significant changes

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

Note 26 - Intercompany Pooling Arrangements - No significant changes

Note 27 - Structured Settlements - No significant changes

Note 28 - Health Care Receivables - No significant changes

Note 29 - Participating Policies - No significant changes

Note 30 - Premium Deficiency Reserves - No significant changes

Note 31 - Reserves for Life Contracts and Annuity Contracts - No significant changes

Note 32 – Analysis of Annuity Actuarial Reserves and Deposit Liabilities by Withdrawal Characteristics – No significant changes

Note 33 - Premium and Annuity Considerations Deferred and Uncollected - No significant changes

Note 34 - Separate Accounts - No significant changes

<u>Note 35 – Loss/Claim Adjustment Expenses</u> – No significant changes

g. Retained asset accounts - No significant changes

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

1.1	Did the reporting entity experience any material transactions requirin Domicile, as required by the Model Act?						Yes [] No [X]	
1.2	If yes, has the report been filed with the domiciliary state?						Yes [] No []	
2.1	Has any change been made during the year of this statement in the reporting entity?						Yes [] No [X]	
2.2	If yes, date of change:					<u>-</u>			
3.1	Is the reporting entity a member of an Insurance Holding Company S is an insurer? If yes, complete Schedule Y, Parts 1 and 1A.						Yes [X] No []	
3.2	Have there been any substantial changes in the organizational chart	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	nges.							
4.1	Has the reporting entity been a party to a merger or consolidation de	uring 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 state ceased to exist as a result of the merger or consolidation.	te of domicile (use	two letter state abbrev	iation) for any entity	that has				
	Name of Entity		2 NAIC Company Code						
5.	If the reporting entity is subject to a management agreement, includi in-fact, or similar agreement, have there been any significant changifyes, attach an explanation.	ing third-party adm ges regarding the to	inistrator(s), managing erms of the agreement	general agent(s), att or principals involve	orney- d?	Yes [] No [X] N/A []
6.1	.1 State as of what date the latest financial examination of the reporting entity was made or is being made.								
6.2	State the as of date that the latest financial examination report becardate should be the date of the examined balance sheet and not the						12/3	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).	he examination rep	oort and not the date of	the examination (ba	lance sh	eet	12/2	20/2010	
6.4 6.5	By what department or departments? State of Connecticut Insurance Department Have all financial statement adjustments within the latest financial extatement filed with Departments?	xamination report t	peen accounted for in a	subsequent financia	al	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 locating regulatory services agency [i.e. the Federal Reserve Board (FRB), Insurance Corporation (FDIC) and the Securities Exchange Committee (FDIC) and the Securities (FDIC) and t	the Office of the Co	omptroller of the Currer	ncy (OCC), the Fede	ral Depo				
	1 Affiliate Name	10	2 cation (City, State)	3 FRB	4 OCC	5 FDIC	6 SEC	İ	
	Babson Capital Securities, LLC	Boston, MA					YES	1	
	Baring Asset Management (Asia) Limited	Hong Kong					YES	İ	
	Baring International Investment Limited	London, UK					YES	İ	
	MML Distributors, LLC	Enfield OT			-		YES YES	1	
	MML Investors Services, LLC	Sprinafield MA					YES	1	
	MML Strategic Distributors, LLC					· · · · · · · · · · · · · · · · · · ·	YES	1	
	MMLISI Financial Alliances, LLC	Springfield, MA					YES	1	
	OppenheimerFunds Distributor, Inc.	New York, NY					YES	1	
	Society of Grownups, LLC	Springfield, MA					YES	1	
	The MassMutual Trust Company, FSB	Enfield, CT			YES			i	

GENERAL INTERROGATORIES

9.1	Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller, or similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?	nal and professional	Yes [X] No []
9.11	If the response to 9.1 is No, please explain:		
9.2 9.21	Has the code of ethics for senior managers been amended?		Yes [] No [X]
9.3 9.31	Have any provisions of the code of ethics been waived for any of the specified officers?		Yes [] No [X]
	FINANCIAL		
10.1 10.2	Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement? If yes, indicate any amounts receivable from parent included in the Page 2 amount:	\$	Yes [X] No []0
	INVESTMENT		
11.1 11.2	Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or other use by another person? (Exclude securities under securities lending agreements.) If yes, give full and complete information relating thereto:		Yes [] No [X]
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	Does the reporting entity have any investments in parent, subsidiaries and affiliates?		Yes [X] No []
		1 Prior Year-End Book/Adjusted Carrying Value	2 Current Quarter Book/Adjusted Carrying Value
	Bonds		\$2,249,387
	Preferred Stock \$		\$
	Common Stock \$ Short-Term Investments \$		\$ \$
	Mortgage Loans on Real Estate		\$
	All Other\$		\$
14.27	Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)\$	2,287,569	\$2,249,387
14.28	Total Investment in Parent included in Lines 14.21 to 14.26 above\$.		\$
15.1 15.2	Has the reporting entity entered into any hedging transactions reported on Schedule DB?		

GENERAL INTERROGATORIES

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

	16.1 Total fair valu	e of reinvested collateral assets report	ed on Schedule DL, Parts 1	1 and 2	\$			
	16.2 Total book ad	ljusted/carrying value of reinvested coll	ateral assets reported on S	Schedule DL, Parts 1 and 2	\$			
17. 7.1	offices, vaults or safety deposit bo custodial agreement with a qualifie Outsourcing of Critical Functions,	xes, were all stocks, bonds and other sed bank or trust company in accordance	securities, owned throughouse with Section 1, III - Gene of the NAIC Financial Cond	eral Examination Considerations, F. dition Examiners Handbook?		Yes [X] No []
		1		2				
		Custodian(s)	000 # 1 04# 01 1 1	Custodian Address				
	Citibank, N.A.		333 West 34th Street, Ne	w York, NY 10001				
17.2	For all agreements that do not com location and a complete explanation	ply with the requirements of the NAIC on:	Financial Condition Examin	ers Handbook, provide the name,				
	1	2		_3				
	Name(s)	Location(s)		Complete Explanation(s)				
7.3 7.4	Have there been any changes, including the service of the service		s) identified in 17.1 during t	the current quarter?		Yes [] No [)	(]
	1	2	3	4		\neg		
	Old Custodian	New Custodian	Date of Change	Reason				
17.5		kers/dealers or individuals acting on bit ity to make investments on behalf of th		have access to the investment accounts	5,			
	1	2		3				
	Central Registration Depository	Name(s)	4500 H : 04	Address		_		
	106006	Badson Capital Management, LLC	1500 Main St	reet, Springfield, MA 01115				
0.1	Llove all the filing requirements of t	he Durnesse and Dresedures Manuel s	of the NAIC Convities Value	ation Office been followed?			1 No. 1	,
8.1	If no, list exceptions:	ne Purposes and Procedures Manual C	of the NAIC Securities valua	ation Office been followed?		Yes [X] No [J
0.2	ii iio, iist exceptioris.							

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:	I Amount
	1.1 Long-Term Mortgages In Good Standing	Amount
	1.11 Farm Mortgages	\$
	1.12 Residential Mortgages	\$3,928,024
	1.13 Commercial Mortgages	\$
	1.14 Total Mortgages in Good Standing	\$3,928,024
	1.2 Long-Term Mortgages In Good Standing with Restructured Terms	
	1.21 Total Mortgages in Good Standing with Restructured Terms	\$
	1.3 Long-Term Mortgage Loans Upon which Interest is Overdue more than Three Months	
	1.31 Farm Mortgages	\$
	1.32 Residential Mortgages	\$
	1.33 Commercial Mortgages	\$
	1.34 Total Mortgages with Interest Overdue more than Three Months	\$
	1.4 Long-Term Mortgage Loans in Process of Foreclosure	
	1.41 Farm Mortgages	\$
	1.42 Residential Mortgages	\$
	1.43 Commercial Mortgages	\$
	1.44 Total Mortgages in Process of Foreclosure	\$
1.5	Total Mortgage Loans (Lines 1.14 + 1.21 + 1.34 + 1.44) (Page 2, Column 3, Lines 3.1 + 3.2)	\$ 3,928,024
	Long-Term Mortgages Foreclosed, Properties Transferred to Real Estate in Current Quarter	p0,020,024
1.6		ħ.
	1.61 Farm Mortgages	
	1.62 Residential Mortgages	,
	1.63 Commercial Mortgages	
	1.64 Total Mortgages Foreclosed and Transferred to Real Estate	5
2.	Operating Percentages:	
	2.1 A&H loss percent	<u></u> %
	2.2 A&H cost containment percent	%
	2.3 A&H expense percent excluding cost containment expenses	%
3.1	Do you act as a custodian for health savings accounts?	Yes [] No [X]
3.2	If yes, please provide the amount of custodial funds held as of the reporting date	\$
3.3	Do you act as an administrator for health savings accounts?	Yes [] No [X]

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

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

			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 Direct Bus Life Contracts Accident and Health Insurance Premiums, Including Policy, Membership Total Deposit-Type Contracts Active Life Insurance Annuity Other Columns States, Etc Considerations and Other Fees Considerations .124,991 124.991 Alabama AL .8,000 Alaska 3. Arizona ΑZ .501,433 501.433 .37.287 4. AR .37.287 Arkansas 2,347,146 , 347 , 146 California 6. Colorado CO 359.123 359.123 351.206 Connecticut CT 351.206 Delaware .34,002 34.002 9 District of Columbia DC .242.733 242.733 10. Florida FL 1.043.922 1.043.922 GΑ 367,986 367,986 Georgia 11. 12. Hawaii н 106 270 106 270 13. Idaho. ID .33.893 .33.893 Illinois 733,615 733,615 14. IL 15 Indiana INI 357,718 357.718 900 16. lowa. IΑ 329.294 330 194 17. KS 216,311 216,311 Kansas 18. Kentucky ΚY 160,645 160.645 19. Louisiana LA 180 334 180 334 ME 105,427 105,427 20. Maine. 21. MD 638,065 .630 638,695 Maryland 22. Massachusetts MA 467 414 467 414 MI 1,105,007 23. Michigan . 1,102,607 .2,400 MN 260,190 24 260, 190 25. Mississippi MS 140 335 140 335 МО 352.460 3.040 355.500 26. Missouri. МТ 190,614 .190,614 28. Nebraska NE 215 686 900 216 586 NV .165.904 .165.904 29. Nevada. New Hampshire NH .81,636 New Jersey 31. NJ .903.561 903 561 New Mexico NM .39.594 .39.594 32. NY 79,524 34. North Carolina NC 549.091 549.091 35. North Dakota ND ...4.386 ..4.386 ОН 729,366 729,366 37. Oklahoma ΟK 621,681 621.681 OR 38. Oregon. .233.139 233.139 Pennsylvania 39. РΑ 1,078,825 1,078,825 40. Rhode Island RI 114 830 114.830 41. South Carolina SC 394.747 394.747 South Dakota 42. SD 23,246 .23,246 43. Tennessee ΤN 306,269 306,269 44. Texas. TX 1.715.147 1 715 147 45. UT 171,258 171,258 Utah .. 46. VT 57, 129 600 .57,729 876 571 47. Virginia VA 876 571 48. Washington WA 393,470 393,470 49. West Virginia wv .93,013 .93,013 50. Wisconsin WΙ 217 050 2 000 219 050 WY 16,350 16,350 51. Wyoming 52. American Samoa AS 53. Guam GU N Puerto Rico PR 54. N. 55. U.S. Virgin Islands ۷I 56 Northern Mariana Islands MP N CAN 57. Canada. .91,023 58. Aggregate Other Aliens .. 59. Subtotal 19.965.517 10.470 19.975.987 90. Reporting entity contributions for employee benefits XXX 91. Dividends or refunds applied to purchase paid-up additions and annuities 92. Dividends or refunds applied to shorten endowment or premium paying period.... Premium or annuity considerations waived under disability or other contract provisions..... 93. XXX 285,616 285,616 94. Aggregate or other amounts not allocable by State XXX XXX 10,470 Totals (Direct Business)... 20,251,133 20,261,603 95. Plus Reinsurance Assume XXX 97 Totals (All Business) XXX 20.251.133 10.470 20.261.603 Less Reinsurance Ceded XXX 98. 9,202,452 9,202,452 11,048,681 Totals (All Business) less Reinsurance Ceded 10,470 99. XXX 11,059,151 **DETAILS OF WRITE-INS** 58001. Other foreign XXX 91.023 91.023 58002. XXX 58003. XXX 58998. Summary of remaining write-ins for Line 58 from overflow page. Totals (Lines 58001 through 58003 plus 58999. 91,023 91,023 58998)(Line 58 above) XXX 9401 XXX

XXX

XXX

XXX

Summary of remaining write-ins for Line 94 from

Totals (Lines 9401 through 9403 plus 9498)(Line

9402.

9403.

9498.

9499.

overflow page

94 above)

⁽L) Licensed or Chartered - Licensed Insurance Carrier or Domiciled RRG; (R) Registered - Non-domiciled RRGs; (Q) Qualified - Qualified or Accredited Reinsurer; (E) Eligible - Reporting Entities eligible or approved to write Surplus Lines in the state; (N) None of the above - Not allowed to write business in the state.

PART 1 – ORGANIZATIONAL CHART

04-3313782

Delaware

	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 Investor L, LLC	04-1590850		Delaware
Berkshire Way LLC	04-1590850		Delaware
MML Special Situations Investor 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		United States
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 Caerulus Holdco US LLC	None		Delaware
MM Rothesay Holdco US LLC	04-1590850		Delaware
MML Investors Services, LLC	04-1590850		Massachusetts
MML Insurance Agency, LLC	04-1590850		Massachusetts
MMLISI Financial Alliances, LLC	41-2011634		Delaware
Man-Matan Intermetical LLC	04 2212792		D-1

MassMutual International LLC

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

	Federal Tax ID	NAIC Co Code	State of Domicile
MassMutual 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
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
Cornerstone Real Estate UK Holdings Limited	None		Delaware
CREAE AIFM LLP	None		United Kingdom
Cornerstone Real Estate UK (No. 2) Limited	98-0654401		United Kingdom
Cornerstone Real Estate Advisers Europe LLP	98-0654388		United Kingdom
Cornerstone Real Estate Advisers Europe Finance LLP	98-0654412		United Kingdom
PAMERA Cornerstone Real Estate Advisers GmbH	98-1194368		Germany
Babson Capital Management (Australia) Holding Company Pty Ltd.	None		Australia
Babson Capital Management (Australia) Pty Ltd.	98-0457456		Australia
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

^{*}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
Red Lake Ventures, LLC	46-5460309		Delaware
Teaktree Acquisition, LLC	None		Delaware
Sweet Tree Holdings 1, LLC	46-3123110		Delaware
U.S. Trailer Holdings II LLC	46-2104352		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 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
OFI Global Trust Company	13-3459790		New York
HarbourView 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
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, Inc.	06-1121864		Connecticut
Tremont Capital Management (Ireland) Limited	None		Ireland
Tremont GP, Inc.	20-8215352		Delaware
Settlement Agent LLC	90-0874510		Delaware
Tremont (Bermuda) Limited	None		Bermuda
MassMutual Baring Holding LLC	04-1590850		Delaware

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

	Federal Tax ID	NAIC Co Code	State of Domicile
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 Sàrl	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, Inc.	46-2252944		Delaware
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
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:	56 2574604		Deleviore
Invicta Advisors LLC Jefferies Finance LLC*	56-2574604 27-0105644		Delaware Delaware
	04-1590850		Delaware
MML Private Equity Fund Investor LLC 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
Cambridge Hotel, LLC	06-1614196		Delaware
······································			

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

	Federal Tax ID	NAIC Co Code	State of Domicile
Chevenne Mountain Resort LLC	04-1590850		Delaware
Cornerstone Partners IV LLC	71-0908077		Delaware
E-Wise Land Venture LLC	20-3887968		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		Delaware
MML O'Hare Hotel LLC	26-3799762		Delaware
Oakley Grove Development LLC	20-3887968		Delaware
Old Pasco Properties LLC	20-3887968		Delaware
Reston Arboretum LLC	75-2901061		Delaware
Riva Portland LLC	30-0713071		Delaware
Rockville Town Center LLC	54-2055778		Virginia
Seattle 1415 Hotel Owner LLC	46-5491311		Delaware
Sedona TFMP Land LLC	04-1590850		Delaware
South Myrtle Monrovia MM LLC	04-1590850		Delaware
South Pasco Properties LLC	20-3887968		Delaware
West 46 th Street Hotel LLC	05-1590850		Delaware
Babson Affiliates & Funds:			
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 High Yield LLC*	55-0886109		Delaware
Babson Capital Floating Rate Income Fund, L.P.	27-3330830		Delaware
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		Delaware
Babson Capital Global Investment Funds plc	None		Ireland
Babson Capital Global Investment Fund 2 plc	None		Ireland
Babson Capital Global Umbrella Fund plc	None 37-1506417		Ireland Delaware
Babson Capital Loan Strategies Fund, L.P.* Babson CLO Ltd. 2005-III	3/-130041/ None		
Babson CLO Ltd. 2005-III Babson CLO Ltd. 2006-II	None		Cayman Islands Cayman Islands
Babson CLO Ltd. 2000-11 Babson CLO Ltd. 2007-I	None		Cayman Islands
Babson CLO Ltd. 2007-1 Babson CLO Ltd. 2011-I	None		Cayman Islands
Babson CLO Ltd. 2011-1 Babson CLO Ltd. 2012-I	None		Cayman Islands
Babson CLO Ltd. 2012-II	None		Cayman Islands
Babson CLO Ltd. 2013-1	None		Cayman Islands
Babson CLO Ltd. 2013-II	98-1128827		Cayman Islands
Babson CLO Ltd. 2013-11 Babson CLO Ltd. 2014-I	None		Cayman Islands
Babson CLO Ltd. 2014-II	None		Cayman Islands
Babson CLO Ltd. 2014-III	None		Cayman Islands
Babson CLO Ltd. 2015-I	None		Cayman Islands

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

PART 1 – ORGANIZATIONAL CHART

State of Domicile

Netherlands

Netherlands

Delaware

Massachusetts

Massachusetts

Cayman Islands

United Kingdom

United Kingdom

United Kingdom United Kingdom

United Kingdom

United Kingdom

United Kingdom

United Kingdom

Cayman Islands

United Kingdom

United Kingdom

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Babson Euro CLO 2014-1 BV		Federal Tax ID	NAIC Co Code	5
Babson Euro CLO 2014-II BV 46-313952 2 Babson Global Income Opportunities Credit Fund 46-3139764 47-3971963 1 Babson Global Income Opportunities Credit Fund 47-3971963 1 Babson Mich Market CLO Lud 2007-II None 98-0536233 6 Babson Mich Market CLO Lud 2007-II 98-0536233 6 Benton Street Partners I, L.P.* 98-053629 6 Connecticut Valley Structured Credit CDO II, Ltd. None 6 Connecticut Valley Structured Credit CDO III, Ltd. None 6 Connecticut Valley Structured Credit CDO III, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 6 Diamond Take CLO, Ltd. None 1 Babson Euro CLO 2014-I BV	None		1	
Babson Global Floating Rate Fund 46-313952 2 Babson Blobal Income Opportunities Credit Fund 46-3119764 2 Babson Investment Grade CLO Debt Fund LP 47-3971963 1 Babson Mich Mirket CLO Lid 2007-II None 6 Benton Street Partners I, L.P.* 98-6356233 6 Benton Street Partners II, L.P.* 98-6356233 6 Clear Lake CLO, Lid None 6 Connecticut Valley Structured Credit CDO III, Lid. None 6 Connecticut Valley Structured Credit CDO III, Lid. None 6 Duchess ICDO S.A None 6 Duchess ICDO S.A None 6 Duchess IV CDO S.A None 6 Duchess IV CDO S.A None 6 Duchess VI CLO B.V. None 6 Duchess VI CLO B.V. None 6 Tegue CLO B.V. None 6 Tegue CLO B.V. None 6 Tegue CLO B.V. None 6 Tegue CLO B.V. None 6 Gateway Mezzanin				1
Babson Global Income Opportunities Credit Fund LP 46-3119764 7197963 1 Babson Investment Grade CLO Debt Fund LP 47-3971963 1 Babson Mid-Market CLO Ltd. 2007-II None 6 Babson Mid-Market CLO Ltd. 2007-II 98-0356233 6 Centrol Street Partures I. L. P.* 98-0356233 6 Centrol Street Partures II, L. P.* 98-0356233 6 Centrol Street Partures II, L. P.* 98-0356233 6 Centrol Street Partures II, L. P.* 98-0356233 6 Centrol Street Partures II, L. P.* 98-0356233 6 Centrol Street Partures II, L. P.* None 6 Centrol Street Partures II, L. P. None 6 Centrol Street Partures II, L. P. None 6 Centrol Street Partures II, L. P.* 7 Centrol Street Partures II, L. P.* 7 Centrol Street Partures II, L. P.* 7 Centrol Street Partures II, L. P.* 7 Centrol Street Partures II, L. P.* 7 Centrol Street Partures II, L. P.* 7 Centrol Stre				ŀ
Babson Investment Grade CLO Debt Fund LP 473971963 I Babson Micharket CLO Latd. 98.0536233 C Benton Street Partners I, L.P.* 98.0536239 C Clear Lake CLO, Lad. None C Connecticut Valley Structured Credit CDO II, Ltd. None C Connecticut Valley Structured Credit CDO III, Ltd. None C Diamond Lake CLO, Ltd. None C Duchess II CDO S.A. None C Duchess II CDO S.A. None I Duchess V CDO S.A. None I Duchess V CDO S.A. None I Duchess V CDO S.A. None I Duchess V CDO S.A. None I Duchess V CLO B.V. None I Euga CLO B.V. None I Fugu CLO B.V. None I Fugu CLO B.V. None I Gateway Mezzanine Partners I, L.P.* None I Gateway Mezzanine Partners I, L.P.* None I Grate Lakes III, L.P. 37-1708623		46-3119764		N
Benton Street Partners L.P.* 98-0336233 C.		47-3971963		Ι
Bestion Street Partners II, L.P.* 98-0336199 Clear Lake CLO, Ltd. None Clear Lake LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. None Clear LCO, Ltd. No	Babson Mid-Market CLO Ltd. 2007-II	None		(
Clear Lake CLO, Ltd.	Benton Street Partners I, L.P.*	98-0536233		(
Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Credit CDO III, Ltd. None Connecticut Valley Structured Connecticut Valley Structured Valley Connecticut Valley Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connecticut Valley Valley Connectic		98-0536199		(
Connecticut Valley Structured Credit CDO III, Ltd. None C Diamond Lake CLO, Ltd. None C Duchess II CDO S.A. None C Duchess IV CDO S.A. None C Duchess V CDO S.A. None C Duchess VICLO B.V. None C Pug CLO B.V. None C Fugu Credit Ple None C Gateway Mezzanine Partners I, L.P.* 80-069123 I Gateway Mezzanine Partners II LP* 90-0991195 I Great Lakes III, L.P.* 37-1708623 I Great Lakes III, L.P.* 37-1708623 I Great Lakes III, L.P. 37-1708623 I Great Lakes III, L.P. 37-1708623 I Great Lakes III, L.P. 80-092105 I Great Lakes III, L.P. 70-108134 I Great Lakes III, L.P. 37-1708623 I Great Lakes III, L.P. 80-092030 I Great Lakes III, L.P. None I Great Lakes III, L.P. 80-092030	Clear Lake CLO, Ltd.	None		(
Diamond Lake CLO, Ltd.	Connecticut Valley Structured Credit CDO II, Ltd.	None		(
Duchess ILCO S.A.		None		(
Duchess III CDO S.A. None II Duchess IV CDO S.A. None II Duchess IV CDO S.A. None II Duchess IV CDO S.A. None II Duchess IV CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. None II Duchess VI CLO B.V. II Duchess VI CLO B.V. II Duchess VI CLO B.V. None II Duchess V	Diamond Lake CLO, Ltd.	None		(
Duchess IV CDO S.A. None ID Duchess VI CLO B.V. None ID Duchess VII CLO B.V. None ID Fugu CLO B.V. None ID Fugu CLO B.V. None ID Gateway Mezzanine Partners I, L.P.* 80-0691253 ID Gateway Mezzanine Partners II L.P.* 80-0691253 ID Gateway Mezzanine Partners II L.P.* 90-0991195 ID Great Lakes II L.L.C.* 71-1018134 ID Great Lakes III L.P. 37-1708623 ID Great Lakes III L.P. 37-1708623 ID Great Lakes III L.P. 56-2505390 ID Intermodal Holding II L.C. 46-2344300 ID Malin CLO B.V. None ID Rockall CLO B.V. None ID Saint James River CDO, Ltd. None ID Sphire Valley CDO I, Ltd. None ID SOMERSE Special Opportunities Fund L.P.* 74-318290 ID Tower Square Capital Partners II, L.P.* 30-0336246 ID Tower	Duchess I CDO S.A.	None		τ
Duchess V CDO S.A. None I Duchess VII CLO B.V. None I Fugu CLO B.V. None I Fugu CLO B.V. None I Fugu Credit Ple None I Gateway Mezzanine Partners I, L.P.* 80-0601253 I Gateway Mezzanine Partners IT Trust None C Gateway Mezzanine Partners II L.P.* 90-0991195 I Great Lakes II L.L.C.* 90-0991195 I Great Lakes III, L.P. 37-1708623 I Great Lakes III, L.P. 46-2344300 I Intermodal Holding II LLC A6-2505390 I Malin CLO B.V. None I Saint James River CDO, Ltd. None I Saint James River CDO, Ltd. None I SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 30-03362	Duchess III CDO S.A.	None		τ
Duchess VI CLO B.V. None I Pugu CLO B.V. None I Fugu CLO B.V. None I Fugu Credit Plc None I Gateway Mezzanine Partners I, L.P.* 80-0691253 I Gateway Mezzanine Partners IT Trust None G Gateway Mezzanine Partners II L.P.* 90-0991195 I Great Lakes III, L.P. 71-1018134 I Great Lakes III, L.P. 37-1708623 I Intermodal Holding II L.C. 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Saint James River CDO, Ltd. None I Sphire Valley CDO I, Ltd. None I SDCOS L.P. 74-3182902 I Tower Square Capital Partners II, L.P.* 30-0336246 I Tower Square Capital Partners II, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P. 41-2280127 I Tower Square Capit	Duchess IV CDO S.A.	None		τ
Duchess VII CLO B.V. None I Fugu CLO B.V. None I Fugu Credit Plc None I Gateway Mezzanine Partners I, L.P.* 80-0691253 I Gateway Mezzanine Partners II Trust None C Gateway Mezzanine Partners II LP* 90-0991195 I Great Lakes II LLC* 71-1018134 I Great Lakes III, L.P. 37-1708623 I Great Lakes III, L.P. 56-2505390 I Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I SDCOS L.P. None I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 30-036246 I Tower Square Capital Partners II, L.P.* 30-036246 I Tower Square Capital Partners III, L.P. 41-2280127 I <	Duchess V CDO S.A.	None		τ
Fugu CLO B.V. None I Fugu Credit Plc None I Gateway Mezzanine Partners I, L.P.* 80-0691253 I Gateway Mezzanine Partners IT Trust None G Gateway Mezzanine Partners II L.P.* 90-0991195 I Great Lakes III L.D.* 71-101843 I Great Lakes III, L.P. 37-1708623 I Great Lakes IL.C.* 56-2505390 I Intermodal Holding II L.C. 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners II, L.P.* 30-0336246 I Tower Square Capital Partners II, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P. 41-2280127 I	Duchess VI CLO B.V.	None		τ
Fugu Credit Plc None IC Gateway Mezzanine Partners I, L.P.* 80-0691253 I Gateway Mezzanine Partners IT Lrust None C Gateway Mezzanine Partners II LP* 90-0991195 I Great Lakes II L.L.C.* 71-1018134 I Great Lakes III, L.P. 37-1708623 I Great Lakes LL.C.* 37-1708623 I Great Lakes LL.C.* 46-2344300 I Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 04-3722906 I Tower Square Capital Partners II, L.P. 32-0160190 I Tower Square Capital Partners III, L.P. 41-2280127 I Tower Square Capital Partners III, L.P. 41-2280129 I Tower Square Capital Partners III, L.P. 41-2280127	Duchess VII CLO B.V.	None		τ
Gateway Mezzanine Partners I, L.P.* 80-0691253 I. Gateway Mezzanine Partners I Trust None G Gateway Mezzanine Partners II LP* 90-0991195 I. Great Lakes III LLC* 71-1018134 I. Great Lakes III, L.P. 37-1708623 I. Great Lakes LLC* 56-2505390 I. Intermodal Holding II LLC 46-2344300 I. Malin CLO B.V. None I. Saint James River CDO, Ltd. None I. Saint James River CDO, Ltd. None I. SppCOS L.P. 74-3182902 I. Somerset Special Opportunities Fund L.P.* 20-8856877 I. Tower Square Capital Partners, L.P.* 30-0336246 I. Tower Square Capital Partners II, L.P.* 32-0160190 I. Tower Square Capital Partners III, L.P.* 41-2280127 I. Tower Square Capital Partners III, L.P. 41-2280129 I. Tower Square Capital Partners III, L.P. 80-0920340 I.	Fugu CLO B.V.	None		τ
Gateway Mezzanine Partners I Trust None General Content Lakes II LLC* 90-0991195 I Great Lakes II LLC* 71-1018134 I Great Lakes III, L.P. 37-1708623 I Great Lakes LLC* 56-2505390 I Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 30-0336246 I Tower Square Capital Partners III, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P.* 41-2280127 I Tower Square Capital Partners III, L.P. 41-2280129 I Tower Square Capital Partners III, L.P. 41-2280129 I Tower Square Capital Partners III, L.P. 40-020340 I	Fugu Credit Plc	None		τ
Gateway Mezzanine Partners II LP* 90-0991195 I Great Lakes II LLC* 71-1018134 I Great Lakes III, L.P. 37-1708623 I Great Lakes LLC* 56-2505300 I Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 30-0336246 I Tower Square Capital Partners II, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P.* 41-2280127 I Tower Square Capital Partners III, L.P. 41-2280129 I Tower Square Capital Partners III, L.P. 80-0920340 I	Gateway Mezzanine Partners I, L.P.*	80-0691253		Ι
Great Lakes II LLC* 71-1018134 I Great Lakes III, L.P. 37-1708623 I Great Lakes LLC* 56-2505390 I Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I SDCOS L.P. None I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 30-0336246 I Tower Square Capital Partners II.A, L.P.* 32-0160190 I Tower Square Capital Partners III.A, L.P. 41-2280127 I Tower Square Capital Partners III.A, L.P. 41-2280129 I Tower Square Capital Partners III.A, L.P. 41-228012 I	Gateway Mezzanine Partners I Trust	None		(
Great Lakes III, L.P. 37-1708623 I Great Lakes LLC* 56-2505390 I Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None C Sapphire Valley CDO I, Ltd. None C SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 30-0336246 I Tower Square Capital Partners II. L.P.* 32-0160190 I Tower Square Capital Partners III, L.P.* 41-2280127 I Tower Square Capital Partners IIIA, L.P. 41-2280129 I Tower Square Capital Partners IIIA, L.P. 80-0920340 I	Gateway Mezzanine Partners II LP*	90-0991195		Ι
Great Lakes LLC* 56-2505390 Intermodal Holding II LLC Malin CLO B.V. 46-2344300 Intermodal Holding II LLC Malin CLO B.V. None Intermodal Holding II LLC Rockall CLO B.V. None Intermodal Holding II LLC Rockall CLO B.V. None Intermodal Holding II LLC Saint James River CDO, Ltd. None Intermodal Holding II LLC Sapphire Valley CDO I, Ltd. None Intermodal Holding II LLC SDCOS L.P. 74-3182902 Intermodal Holding II LLC Somerset Special Opportunities Fund L.P.* 20-8856877 Intermodal Holding II LLC Tower Square Capital Partners, L.P.* 30-0336246 Intermodal Holding II LLC Tower Square Capital Partners II, L.P.* 32-0160190 Intermodal Holding II LLC Tower Square Capital Partners III, L.P.* 41-2280127 Intermodal Holding II LLC Tower Square Capital Partners III, L.P. 41-2280129 Intermodal Holding II LLC Tower Square Capital Partners IV, L.P. 80-0920340 Intermodation in the Holding II LLC	Great Lakes II LLC*	71-1018134		Ι
Intermodal Holding II LLC 46-2344300 I Malin CLO B.V. None I Rockall CLO B.V. None I Saint James River CDO, Ltd. None I Sapphire Valley CDO I, Ltd. None I SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 04-3722906 I Tower Square Capital Partners II, L.P.* 30-0336246 II Tower Square Capital Partners III-A, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P.* 41-2280127 I Tower Square Capital Partners IIIIA, L.P. 41-2280129 II Tower Square Capital Partners IV, L.P. 80-0920340 I	Great Lakes III, L.P.	37-1708623		Ι
Malin CLO B.V. None IX Rockall CLO B.V. None IX Saint James River CDO, Ltd. None IX Sapphire Valley CDO I, Ltd. None IX SDCOS L.P. 74-3182902 IX Somerset Special Opportunities Fund L.P.* 20-8856877 IX Tower Square Capital Partners, L.P.* 04-3722906 IX Tower Square Capital Partners II, L.P.* 30-0336246 IX Tower Square Capital Partners III, L.P.* 32-0160190 IX Tower Square Capital Partners III, L.P.* 41-2280127 IX Tower Square Capital Partners IIIA, L.P. 41-2280129 IX Tower Square Capital Partners IV, L.P. 80-0920340 IX				I
Rockall CLO B.V. None IX Saint James River CDO, Ltd. None OX Sapphire Valley CDO I, Ltd. None OX SDCOS L.P. 74-3182902 IX Somerset Special Opportunities Fund L.P.* 20-8856877 IX Tower Square Capital Partners, L.P.* 04-3722906 IX Tower Square Capital Partners II, L.P.* 30-0336246 IX Tower Square Capital Partners III, A. L.P.* 32-0160190 IX Tower Square Capital Partners III, L.P.* 41-2280127 IX Tower Square Capital Partners III, L.P. 41-2280129 IX Tower Square Capital Partners IV, L.P. 80-0920340 IX	Intermodal Holding II LLC	46-2344300		Ι
Saint James River CDO, Ltd. None C Sapphire Valley CDO I, Ltd. None C SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 04-3722906 I Tower Square Capital Partners II, L.P.* 30-0336246 I Tower Square Capital Partners III, A. L.P.* 32-0160190 I Tower Square Capital Partners III, A. L.P. 41-2280127 I Tower Square Capital Partners IV, L.P. 80-0920340 I	Malin CLO B.V.	None		Į
Sapphire Valley CDO I, Ltd. None C SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 04-3722906 I Tower Square Capital Partners II, L.P.* 30-0336246 I Tower Square Capital Partners III, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P.* 41-2280127 I Tower Square Capital Partners IIIA, L.P. 41-2280129 I Tower Square Capital Partners IV, L.P. 80-0920340 I				Į
SDCOS L.P. 74-3182902 I Somerset Special Opportunities Fund L.P.* 20-8856877 I Tower Square Capital Partners, L.P.* 04-3722906 I Tower Square Capital Partners II, L.P.* 30-0336246 I Tower Square Capital Partners III-A, L.P.* 32-0160190 I Tower Square Capital Partners III, L.P.* 41-2280127 I Tower Square Capital Partners IIIA, L.P. 41-2280129 I Tower Square Capital Partners IV, L.P. 80-0920340 I	Saint James River CDO, Ltd.	None		(
Somerset Special Opportunities Fund L.P.* Tower Square Capital Partners, L.P.* Tower Square Capital Partners II, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners IIII, L.P.* Tower Square Capital Partners IIII, L.P.* Tower Square Capital Partners IIII, L.P. Tower Square Capital Partners IV, L.P. 80-0920340	Sapphire Valley CDO I, Ltd.	None		(
Tower Square Capital Partners, L.P.* 04-3722906 II Tower Square Capital Partners II, L.P.* 30-0336246 II Tower Square Capital Partners II-A, L.P.* 32-0160190 II Tower Square Capital Partners III, L.P.* 41-2280127 II Tower Square Capital Partners IIIA, L.P. 41-2280129 II Tower Square Capital Partners IV, L.P. 80-0920340 II				I
Tower Square Capital Partners II, L.P.* Tower Square Capital Partners II-A, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners IIIA, L.P. Tower Square Capital Partners IIIA, L.P. Tower Square Capital Partners IV, L.P. 80-0920340				Ι
Tower Square Capital Partners II-A, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners III, L.P.* Tower Square Capital Partners IIIA, L.P. Tower Square Capital Partners IV, L.P. 80-0920340				I
Tower Square Capital Partners III, L.P.* Tower Square Capital Partners IIIA, L.P. Tower Square Capital Partners IV, L.P. 11-2280127 41-2280129 IV Were Square Capital Partners IV, L.P. 12-280129 IV Were Square Capital Partners IV, L.P.				I
Tower Square Capital Partners IIIA, L.P. Tower Square Capital Partners IV, L.P. 41-2280129 80-0920340 I				I
Tower Square Capital Partners IV, L.P. 80-0920340				Ι
				I
Tower Square Capital Partners IV-A, L.P. 80-0920367 I	Tower Square Capital Partners IV, L.P.			Ι
	Tower Square Capital Partners IV-A, L.P.	80-0920367		Ι

^{*}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
	Whately CDO, Ltd.	None		Cayman Islands
	Wood Creek Multi Asset Fund, L.P.	20-4981369		Delaware
	Wood Creek Venture Fund LLC	04-1590850		Delaware
Baring A	filiates & Funds:			
	Baring Emerging Market Corp Debt Fund	None		Ireland
	Baring Focused EAFE Equity Fund	11-3789446		Delaware
	Baring Focused International Equity Fund	01-0850479		Delaware
	Baring Global Dynamic Asset Allocation Fund	30-0607379		Delaware
	Baring International Equity Fund	39-2059577		Delaware
	Baring International Small Cap Equity Fund	26-4142796		Delaware
	Baring World Equity Fund	46-1197222		Delaware
	Multi-Employer Global Aggregate Diversified Portfolio	26-1896226		Delaware
Cornersto	one Affiliates & Funds:			
	12-18 West 55th Street Predevelopment, LLC*	20-2548283		Delaware
	2 Harbor Shore Member LLC*	46-4803557		Delaware
	21 West 86 LLC*	45-5257904		Delaware
	Ygnatio Valley Funding	20-5481477		Delaware
	AT Mid-Atlantic Office Portfolio LLC*	45-2779931		Delaware
	Babson Mezzanine Realty Investors I*	20-4570515		Delaware
	Babson Mezzanine Realty Investors II	24-1446970		Delaware
	CHC/RFP VI Core LLC	04-1590850		Delaware
	Cornerstone Core Mortgage Fund I LP	27-1701733		Delaware
	Cornerstone Core Mortgage Venture I LP	27-1701622		Delaware
	Cornerstone Enhanced Mortgage Fund I LP	45-3751572		Delaware
	Cornerstone Fort Pierce Development LLC*	56-2630592		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 Patriot Fund LP	20-5578089		Delaware
	Cornerstone Real Estate Fund VIII LP	27-0547156		Delaware
	Cornerstone Permanent Mortgage Fund	45-2632610		Delaware
	Cornerstone Real Estate Fund X LP	46-5432619		Delaware
	CREA 330 Third LLC*	46-5001122		Delaware
	CREA FMF Nashville LLC	46-4367364		Delaware
	CREA/LYON West Gateway, LLC*	26-2399532		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
	Gracechurch London Holdings LLC*	46-1586427		Delaware

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

	Federal Tax ID NAIC Co Cod	State of Domicile
Infinity SCD Ltd.	None	United Kingdom
Johnston Groves LLC	20-4819358	Delaware
Metropolitan At Lorton*	20-5984759	Delaware
MM Greenhill Office LLC*	46-3317841	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
SBNP SIA LLC	46-3465271	Delaware
Twenty Two Liberty LLC*	35-2484550	Massachusetts
UK LIW Manager LLC	45-4606547	Delaware
UK LIW Member LLC	45-4606547	Delaware
U.S. Buyer Broadcasting LLC	47-1855920	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
MassMutual Premier Funds:		
MassMutual Barings Dynamic Allocation Fund	45-3168892	Massachusetts
MassMutual Premier Balanced Fund	04-3212054	Massachusetts
MassMutual Premier Core Bond Fund	04-3277549	Massachusetts
MassMutual Premier Disciplined Growth Fund	04-3539084	Massachusetts
MassMutual Premier Disciplined Value Fund	04-3539083	Massachusetts
MassMutual Premier Diversified Bond Fund	04-3464165	Massachusetts
MassMutual Premier Focused International Fund	02-0754273	Massachusetts
MassMutual Premier Global Fund	51-0529334	Massachusetts
MassMutual Premier High Yield Fund	04-3520009	Massachusetts
MassMutual Premier Inflation-Protected and Income Fund	03-0532475	Massachusetts
MassMutual Premier International Equity Fund	04-3212044	Massachusetts
MassMutual Premier Main Street Fund	51-0529328	Massachusetts
MassMutual Premier Short-Duration Bond Fund	04-3212057	Massachusetts
MassMutual Premier Small/Mid Cap Opportunities Fund	04-3424705	Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251	Massachusetts
MassMutual Premier Value Fund	04-3277550	Massachusetts
MassMutual Select Funds:		
MassMutual Select Blackrock Global Allocation Fund	27-1028263	Massachusetts
MassMutual Select Blue Chip Growth Fund	04-3556992	Massachusetts
MassMutual Select Diversified International Fund	14-1980900	Massachusetts
MassMutual Select Diversified Value Fund	01-0821120	Massachusetts
MassMutual Select Focused Value Fund	04-3512590	Massachusetts
MassMutual Select Fundamental Growth Fund	04-3512593	Massachusetts

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

	Federal Tax ID	NAIC Co Code	State of Domicile
MassMutual Select Fundamental Value Fund	04-3584138		Massachusetts
MassMutual Select Growth Opportunities Fund	04-3512589		Massachusetts
MassMutual Select Large Cap Value Fund	04-3513019		Massachusetts
MassMutual Select Mid Cap Growth Equity II Fund	04-3512596		Massachusetts
MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select MSCI EAFE International Index Fund	45-5357167		Massachusetts
MassMutual Select Overseas Fund	04-3557000		Massachusetts
MassMutual Select PIMCO Total Return Fund	27-2377446		Massachusetts
MassMutual Select Russell 2000 Small Cap Index Fund	45-5366542		Massachusetts
MassMutual Select S&P 500 Index Fund	04-3410047		Massachusetts
MassMutual Select Small Cap Growth Equity Fund	04-3464205		Massachusetts
MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Company Growth Fund	04-3584141		Massachusetts
MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MassMutual Select S&P Mid Cap Index Fund	45-5349772		Massachusetts
MassMutual Select Strategic Bond Fund	26-0099965		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 2010 Fund	03-0532456		Massachusetts
MassMutual RetireSMART 2015 Fund	27-1933828		Massachusetts
MassMutual RetireSMART 2020 Fund	03-0532467		Massachusetts
MassMutual RetireSMART 2025 Fund	27-1933753		Massachusetts
MassMutual RetireSMART 2035 Fund	27-1933389		Massachusetts
MassMutual RetireSMART 2040 Fund	03-0532471		Massachusetts
MassMutual RetireSMART 2045 Fund	27-1932769		Massachusetts
MassMutual RetireSMART 2050 Fund	26-1345332		Massachusetts
MassMutual RetireSMART 2055 Fund	46-3289207		Massachusetts
MassMutual RetireSMART Conservative Fund	45-1618155		Massachusetts
MassMutual RetireSMART Growth Fund	45-1618222		Massachusetts
MassMutual RetireSMART In Retirement Fund	03-0532464		Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262		Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046		Massachusetts
Oppenheimer Funds:			
HarbourView CLO 2006-1 Limited	None		Cayman Islands
HarbourView CLO VII, Ltd.	None		Cayman Islands

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

	Federal Tax ID NAIC Co Code	State of Domicile
Oppenheimer Global High Yield Fund	45-3417590	Delaware
Oppenheimer Global Multi-Asset Income Fund	47-1714929	Delaware
Oppenheimer Global Real Estate Fund*	46-1604428	Delaware
Oppenheimer International Growth Fund	13-3867060	Massachusetts
Oppenheimer Main Street Fund	84-1073463	Massachusetts
Oppenheimer Real Estate Fund	22-3849391	Massachusetts

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

SCHEDULE Y

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Sample Control Contr							Name of Securities			Relation-		Board,	Owner-		
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Cocco	Group		Company	ID	Federal		(U.Ś. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence.	Percen-	Ultimate Controlling	
Company Comp	Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity `	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	*
No. No.							,	Massachusetts Mutual Life Insurance			Massachusetts Mutual Life Insurance	,	Ĭ	, , , , , , , , , , , , , , , , , , , ,	1
Control Cont	0435	Massachusetts Mut Life Ins Co	65935	04-1590850 .	3848388	0000225602		Company (MMLIC)	MA	UIP	Company	Ownership	100.000	MMLIC	
March Marc								•			Massachusetts Mutual Life Insurance	·			
Second S	0435	CM Life Ins Co	93432					C.M. Life Insurance Company		UDP	Company	Ownership	100.000	MMLIC	
March Marc	0435	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	
Machine Mach										NIA		Ownership			
March Marc										NIA		Ownership			
ON Special Situations Investor LLC E. All. C. Life Insurance Corpusy Deverable 500.00 Mal.C															
100				06-1041383 .	.										
March Marc	0000							CML Special Situations Investor LLC	DE	NIA		Ownership	100.000	. MMLIC	
Massacherst Studies Life Insurance															
Math Special Status into Investor ILC DE NIA Congramy	0000			04-1590850 .				MML Mezzanine Investor L, LLC	DE	NIA		Ownership	100.000	MMLIC	
00															
Descriptive by LEC DE NAL Company Descriptive by LEC DE NAL Company Descriptive Description	0000							MML Special Situations Investor LLC	DE	NIA		Ownership	100.000	. MMLIC	
December December															
Decoration Dec	0000			04-1590850				Berkshire Way LLC	DE	NIA		Ownership	100.000	. MMLIC	
March Marc											Massachusetts Mutual Life Insurance				
Massachusetts Mutual Life Insurance															
December December	0000			. 26-4441097 .				WP-SC, LLC	DE	NIA	C.M. Life Insurance Company	Ownership	18.600	MMLIC	
December December															
	0000			. 04-1590850 .				MSP-SC, LLC	DE	NIA		Ownership	100.000	MMLIC	
	0000			27-1435692 .				Country Club Office Plaza LLC	DE	NIA		Ownership	. 11.900	MMLIC	
MassMutual Retirement Services, LLC DE NIA Company Connership 100,000 MIL C															
MassNutual Retirement Services, LLC	0000			37-1732913				Fern Street LLC	DE	NIA		Ownership	. 100.000	{MMLIC	
DOCO DA-335880 DOCO43903 MIL Distributors LLC MA NIA Massachusetts Mutual Life Insurance Ownership 1,1000 MIL C															
	0000			. 04-1590850 .				MassMutual Retirement Services, LLC	DE	NIA		Ownership	100.000	MMLTC	
DOC DOC	0000			04 0050000		0000040000		MM B: 1 :1 1 110				0 1:	00 000	188 10	
MML Investment Advisers, LLC DE NIA Massachusetts Mutual Life Insurance Ownership .100.000 MML C															
MML Investment Advisers, LLC DE	0000			. 04-3356880 .		. 0000943903		MWL DISTRIBUTORS LLC	MA	NIA		Uwner sn I p	1.000	WWLIC	
MML Mezzanine Investor, LLC DE	0000							MM Investment Advisers IIC	DE	MILA		Ownership	100 000	MAIL LC	
Decoration Dec	0000					-		MINIE THESTHETT AUVISEIS, LLC	∪⊏	NIA		Owner 2011b	. 100.000	WWILTO	
MML Strategic Distributors, LLC	0000			04_1500950				MM Mezzanine Investor IIC	DE	NIA		Ownership	100 000	MMLIC	
Description Description	0000			. 04-1030000 .		-		minut mezzaiiiie iiivestui, LLU	VC	NIA		Omited 2011h		WINLIV	
D000 D6-1563535 2881445 D001103653 D7-1500850	0000			46-3238013				MM Strategic Distributors IIC	DE	NΙΔ		Ownership	100 000	MMLIC	
Decoration Dec	0000			. +0-0200010 .				mine ottategio bistilbutois, LLO				Omnor 3/11p		L.IV	
MMC Equipment Finance LLC DE NIA Company Ownership 100.000 MMLIC	0000			06-1563535	2881445	0001103653		The MassMutual Trust Company FSB	US	NIA		Ownership	100 000	MMLIC	
.0000 .04-1590850 MMC Equipment Finance LLC DE NIA Company Ownership .100.000 MMLIC .0000 .26-0073611 MassMutual Asset Finance LLC DE NIA MMC Equipment Finance LLC Ownership .99.600 MMLIC .0000 .26-0073611 MassMutual Asset Finance LLC .0E NIA C.M. Life Insurance Company Ownership .99.600 MMLIC .0000 .27-1379258 .04-1590850 .04-1590850 .04-1590850 .04-1590850 .05-10-10-10-10-10-10-10-10-10-10-10-10-10-															
DE NIA MMC Equipment Finance LLC DE NIA MMC Equipment Finance LLC DE NIA MMC Equipment Finance LLC DE NIA MMC Equipment Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Asset Finance LLC DE NIA MassMutual Life Insurance DE NIA MassAchusetts Mutual Life Insurance DE NIA DE NIA DE NIA DE NIA DE DE NIA DE DE NIA DE DE DE DE DE DE DE D	0000			04-1590850				MMC Equipment Finance LLC	DE	NIA		Ownership	100.000	MMLIC	
MassMutual Asset Finance LLC DE NIA C.M. Life Insurance Company Ownership Owne															
MMAF Equipment Finance LLC 2009-A DE NIA MassMutual Asset Finance LLC Ownership 100.000 MMLIC						.									
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MML Private Placement Investment Company I, LLC DE NIA Company Massachusetts Mutual Life Insurance Company Massachusetts Mutual Life Insurance Ownership 100.000 MMLIC 0mpany Massachusetts Mutual Life Insurance Ownership 100.000 MMLIC 0mp															
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0000	0000			04-1590850 .					DE	NIA	Company	Ownership	100.000	MMLIC	
Massachusetts Mutual Life Insurance	-										Massachusetts Mutual Life Insurance				
	0000			45-2738137				Pioneers Gate LLC	DE	NIA		Ownership	100.000	MMLIC	
											Massachusetts Mutual Life Insurance				
	0000		<u> </u>	45-4376777				MSC Holding Company, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	

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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) *
0000			04-3341767				MassMutual Holding MSC, Inc.	MA	NI A	MSC Holding Company, LLC	Ownership	100.000	MMLIC
										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 4500050				MM Caerulus Holdco US LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC
0000			04-1590850 04-1590850		0000701050		MM Rothesay Holdco US LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MLIC
0000			04-1590850 .		0000701059		MML Investors Services, LLC	MA	NIA NIA	MassMutual Holding LLC	Ownership		MMLIC
0000			41-2011634		0001456663		MML Insurance Agency, LLC	MA DE	NIA NIA	MML Investors Services, LLC	Ownership	. 100.000	MMLIC
0000			04-3313782		0001430003		MassMutual International LLC	DE	NIA NIA	MassMutual Holding LLC	Ownership		MMLIC
0000			04-33 13/82				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
0000							Protective Capital (International) Limited			masswutuar Asra Ermiteu	Owner Sirip		
0000			98-0610331				Trotective dapitar (internationar) Elimited	HKG	NIA	MassMutual Asia Limited	Ownership	100.000	
0000			30 0010001 .				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	MML I C
0000			98-0432153 .				Babson Capital Mangement (UK) Limited	GBR	NIA	Babson Capital Guernsey 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	MMLIC
0000							Almack Mezzanine Fund II Limited	GBR	NI A	Babson Capital Europe Limited	Ownership	100.000	MMLIC
0000			98–1012393				Babson Capital Global Advisors Limited	GBR	NI A	Babson Capital Europe Limited	Ownership	100.000	MMLIC
0000							BCGSS 2 GP LLP	GBR	NI A	Babson Capital Europe Limited	Ownership	100.000	MMLIC
0000							Babson European Direct Lending 1 GP LLP	GBR	NI A	Babson Capital Europe Limited	Ownership	100.000	MML1C
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	MMLIC
0000			04–3238351	3456895	. 0001011148		Cornerstone Real Estate Advisers Inc.	CA	NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC
0000						1	Cornerstone Real Estate Advisers Japan	IDAI	ALLA	0	0	100 000	18// 10
0000							K.K.	JPN	NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC
0000							Cornerstone Real Estate UK Holdings	DE	AJ I A	Commenters Deal Fatata Advisor 110	O	100 000	MMLIC
0000							Limited	DE GBR	NIA NIA	Cornerstone Real Estate Advisers LLC	Ownership	100.000	MMLIC
0000							Cornerstone Real Estate UK (No. 2) Limited	BK	NIA	Cornerstone Real Estate Advisers LLC Cornerstone Real Estate UK Holdings	. Uwiter Stilp		
0000			98-0654401			1	Connectione near estate UN (NO. 2) LIMITED	GBR	NIA	Limited	Ownership	100.000	MMLIC
0000			30-0004401 .				Cornerstone Real Estate Advisers Europe	חחמי	N I M	Cornerstone Real Estate UK Holdings	OHIIG1 2111P		WWILIO
0000			98-0654388			1	LLP	GBR	NIA	Limited	Ownership	100.000	MMLIC
0000			30 0004300 .				Cornerstone Real Estate Advisers Europe	חטע	NIM	Cornerstone Real Estate UK Holdings	οπιοι στιμ		
0000			98-0654412			1	Finance LLP	GBR	NIA	Limited	Ownership	100.000	MMLIC
0000			20-0004412 .	.			I IIIQIIVE LLF	יחטע		LIIIII LGU	Omition 9111h	.	WITHLE I V

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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)	*
							PAMERA Cornerstone Real Estate Advisers			Cornerstone Real Estate UK Holdings				
0000			98-1194368				GmbH	DEU	NIA	Limited Owners	sh i p	100.000	MMLIC	
							Babson Capital Management (Australia)							
0000							Holding Company Pty Ltd	AUS	NIA	Babson Capital Management LLC Owners	sh i p	100.000	MMLIC	
							Babson Capital Management (Australia) Pty			Babson Capital Australia Holding Company				
0000			98-0457456 .				Ltd.	AUS	NIA	Pty LtdOwners		100.000	MMLIC	
0000							Babson Capital Cornerstone Asia Limited	HKG	NIA	Babson Capital Management LLC Owners		100.000	MMLIC	
0000			04-1590850				Wood Creek Capital Management LLC	DE	NIA	Babson Capital Management LLC Owners		100.000	MMLIC	.
0000			26-3115362				Wood Creek Index Company, LLC	DE	NIA	Wood Creek Capital Management LLC Owners		100.000	MMLIC	.
0000			47-2642354				Alchemy Copyrights, LLC.	DE		Wood Creek Capital Management LLC Owners		13.100		.
0000			47-3055009 .				Milestone Acquisition Holding, LLC	DE	NIA	Wood Creek Capital Management LLC Owners	ship	19.400	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-5460309 .				Red Lake Ventures, LLC	DE	NIA	Company Owners		31.500	MMLIC	
0000			46-5460309 .				Red Lake Ventures, LLC	DE	NIA	Wood Creek Capital Management LLCInflue	ence		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-3123110				Sweet Tree Holdings 1, LLC	DE	NIA	Company Owners		16.100	MMLIC	
0000			46-3123110				Sweet Tree Holdings 1, LLC	DE	NIA	Wood Creek Capital Management LLCInflue	ence		MMLIC	
										Massachusetts Mutual Life Insurance				
0000							Teaktree Acquisition, LLC	DE	NIA	Company Owners		14.700	MMLIC	
0000							Teaktree Acquisition, LLC	DE		Wood Creek Capital Management LLC Influe			MMLIC	
0000			46-1500495 .				U.S. WIG Holdings, LP	DE	NIA	Wood Creek Capital Management LLC Owners		11.700	MMLIC	
0000			46-2104352 .				US Trailer Holdings II LLC	DE	NIA	Wood Creek Capital Management LLC Influe	ence		MMLIC	
0000			40 0070504				WO Aires of Heldings HO II IIO	DE	ALLA	Massachusetts Mutual Life Insurance	L.:	17 000	188 10	
0000 0000			46-3378584 ₄₆₋₃₃₇₈₅₈₄				WC Aircraft Holdings US II, LLC WC Aircraft Holdings US II, LLC	DE	NIA NIA	Company Owners Wood Creek Capital Management LLC Manage		17.900	MMLIC	
0000			40-33/8384				WC Afforatt Holdings US 11, LLC		NIA	Wood Creek Capital Management LLC Manage Massachusetts Mutual Life Insurance	ement		MMLIC	
0000							Ward Creek Ainsoutt Halding L. LD	CYM	NIA		L:	12. 100	MMLIC	
0000							Wood Creek Aircraft Holding I, LP Wood Creek Aircraft Holding I, LP	CYML	NIA	Company		12. 100	MMLIC	
0000							Babson Capital Floating Rate Income Fund	T IVL	NI A	wood creek capital management LLC manage	ment		. IWMLIG	
0000			04-1590850 .		0001501011		Management, LLC	DE	NIA	Babson Capital Management LLC Owners	shin	100.000	MMLIC	
0000			. 04-1390630 .		0001301011		Babson Capital Core Fixed Income		INI A	Dabson Capital Management LLC	siiip	100.000		
0000			27-3523916		0001503878		Management LLC	DE	NIA	Babson Capital Management LLC Owners	chin	100.000	MMLIC	
0000			27 0020010		0001000070		Babson Capital Total Return Management LLC			Dabson Capital management LLC	sirrp		WILL TO	
0000			27-3524203		0001503879		baboon oup tur rotar notarn managoment EEo	DE	NIA	Babson Capital Management LLC Owners	shin	100.000	MMLIC	
		-			1 200 1000070		Babson Investment Grade CLO Debty			Officer S	··· P			
0000							Management LLC	DE	NIA	Babson Capital Management LLC Owners	ship	100.000	MMLIC	
0000		·	98-0536233 .				Benton Street Advisors, Inc.	CYM	NIA	Babson Capital Management LLC Owners		100.000	MMLIC	
0000			04-1590850				SDCOS Management LLC	DE		Babson Capital Management LLC Owners		100.000	MMLIC	
0000			04-1590850				Great Lakes III GP, LLC	DE		Babson Capital Management LLC		100.000	MMLIC	
0000			04-1590850				Loan Strategies Management LLC	DE		Babson Capital Management LLC		100.000	MMLIC	
0000			04-1590850				Mezzco LLC	DE	NIA	Babson Capital Management LLC Owners		100.000	MMLIC	
0000			02-0767001				Mezzco II LLC	DE	NIA	Babson Capital Management LLCOwners	ship	98.400	MMLIC	.
0000			41-2280126				Mezzco III LLC	DE	NIA	Babson Capital Management LLC Owners	ship	99.300	MMLIC	.
0000			80-0920285 .				Mezzco IV LLC	DE	NI A	Babson Capital Management LLC Owners	ship	99.300	MMLIC	
0000			90-0666326 .				Mezzco Australia LLC	DE		Babson Capital Management LLC Owners	ship	72.000	MMLIC	
0000							Mezzco Australia II LLC	DE		Babson Capital Management LLC Owners		100.000	MMLIC	
		1			1		Somerset Special Opportunities Management							
0000			04-1590850 .				LLC	DE	NIA	Babson Capital Management LLC Owners		100.000	MMLIC	
0000			84-1149206 .	2897101			Oppenheimer Acquisition Corp.	DE	NIA	MassMutual Asset Management Holding LLC Owners		95.800	MMLIC	
0000			13-2527171	2679183	0000820031		OppenheimerFunds, Inc.	CO	NIA	Oppenheimer Acquisition CorpOwners	ship	100.000	MMLIC	.
0000			13-2953455	l	0000276541		OppenheimerFunds Distributor, Inc.	NY	NI A	OppenheimerFunds, Inc Owners	ship	100.000	MMLIC	.

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						Exchange		Domi-	ship		Management,	ship		
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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)	*
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	MMLIC	
0000		-	84-1128397	-	. 0000857468		OFI SteelPath, Inc.	DE	NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000		-	84-1066811		. 0000276398		Shareholder Services, Inc.	CO	NI A	OppenheimerFunds, Inc.	Ownership	100.000	- MMLIC	
0000			84-0765063		. 0001041674		OFI Global Asset Management, Inc.	DE	NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			91-2036414		. 0001179480		OFI Private Investments Inc.	NY	NI A	OppenheimerFunds, Inc.	Ownership	100.000	MMLIC	
0000			62-1210532				Tremont Group Holdings, Inc.	NY	NIA	Oppenheimer Acquisition Corp.	Ownership	100.000	MMLIC	
0000			. 06-1121864		. 0000764139		Tremont Partners, Inc.	CT	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
							Tremont Capital Management (Ireland)							
0000							Limited	IRL	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
0000			20-8215352				Tremont GP, Inc.	DE	NIA	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
0000			90-0874510		-		Settlement Agent LLC	DE	NI A	Tremont Group Holdings, Inc.	Ownership	100.000	MMLIC	
0000							Tremont (Bermuda) Limited	BMU	NI A	Tremont Group Holdings, Inc.	Ownership	100.000	- MMLIC	
0000			04-1590850				MassMutual Baring Holding LLC	DE	NI A	MassMutual Asset Management Holding LLC .	Ownership	100.000	MMLIC	
0000			98-0241935	2363071	. 0000932463		Baring North America LLC	MA	NI A	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC	
0000							MassMutual Holdings (Bermuda) Limited	BMU	NIA	MassMutual Baring Holding LLC	Ownership	100.000	MMLIC	
0000			98-0241935				Baring Asset Management Limited	GBR	NIA	MassMutual Holdings (Bermuda) Limited	Ownership	100.000	MMLIC	
0000			98-0457328		. 0001568131		Baring International Investment Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC	
0000			00 0457507				Baring International Investment Management	ODD	ALLA	Bankan Assak Managamak Limikad	0	100 000	188 10	
0000			98-0457587				HoldingsBaring Asset Management UK Holdings	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	- MMLIC	
0000			98-0457576				Limited	GBR	NILA	Baring International Investment	O	100,000	MMLIC	
0000			98-043/3/6				Limited	BH	NI A	Management Holdings	Ownership	100.000	. NIMLIC	
0000			98-0465031				Danian Assat Managament Cobil	DEU	NIA	Limited	Ownership.	100.000	MMLIC	
0000			. 30-040003 I				Baring Asset Management GmbH	VEU	NIA	Baring Asset Management UK Holdings	Owner SITP		. IVWIL I C	
0000			98-0524271				Limited	HKG	NIA	Limited	Ownership	100.000	MMLIC	
0000			. 30-03242/1				Baring International Fund Managers	I INU	NIA	Baring Asset Management (Asia) Holdings	Omici 3111p		INMILIO	
0000			98-0457465				(Bermuda) Limited	BMU	NIA	Limited	Ownership	100.000	MMLIC	
0000			. 50 073/403		-		(Dormada) Limited			Baring Asset Management (Asia) Holdings	Omiot 3111p			
0000			98-0457463				Baring Asset Management (Asia) Limited	HKG	NIA	Limited	Ownership	100.000	MMLIC	
0000			. 00 0107100				Baring Asset Management Korea Limited	KOR	NIA	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC	
							Daring Asset management Noted Limited			Baring Asset Management (Asia) Holdings	- Omioi on p			
0000			98-0236449				Baring Asset Management (Japan) Limited	JPN	NIA	Limited	Ownership	100.000	MMLIC	
0000			00 0200110				Baring Asset Management (Australia) Pty			Baring Asset Management (Asia) Holdings	omior on p			
0000			98-0457456				Limited	AUS	NIA	Limited	Ownership	100.000	MMLIC	
							Baring International Fund Managers			Baring Asset Management UK Holdings				
0000			98-0524272				(Ireland) Limited	JRL	NIA	Limited	Ownership	100.000	MMLIC	
							(Baring Asset Management UK Holdings			1	
0000							Baring Asset Management Switzerland Sàrl	CHE	NIA	Limited	Ownership	100.000	MMLIC	
							Salling Model management officer rand dall	ا الد		Baring Asset Management UK Holdings				
0000			98-0457707				Baring SICE (Taiwan) Limited	TWN	NIA	Limited	Ownership	100.000	MMLIC	
										Baring Asset Management UK Holdings				
0000			98-0497550				Baring France SAS	FRA	NIA	Limited	Ownership.	100.000	MMLIC	
0000			98-0457586				Baring Fund Managers Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC	
0000			98-0457574				Baring Pension Trustees Limited	GBR	NIA	Baring Asset Management Limited	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)	*
0000			98-0457578 .				Baring Investment Services Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC	
0000							Baring Investments (UK) Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MMLIC	
0000			62-0951563 .	1160004	. 0001259664		First Mercantile Trust Company	TN	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			46-2252944 .				Haven Life Insurance Agency, Inc.	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			04-2443240 .				MML Management Corporation	MA	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC	
0000			04-3548444 .				massmutual international Holding MSC, Inc.	MA	NIA	IMI Management Corneration	Ownership	100.000	MMLIC	
0000			47-1466022				Society of Grownups, LLC	MA	NIA	MML Management Corporation	Ownership	100.000	MMLIC	
0000			47-1400022				Socrety of Grownups, LLC	MA	INTA	Massachusetts Mutual Life Insurance	Owner strip		INVILIO	
0000			04-1590850 .		1	1	MML Mezzanine Investor II, LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			U4-109000U .				MINIL MEZZAIIIIE IIIVESTOI II, LLO	UE	IN I M	Massachusetts Mutual Life Insurance	Owner SITP	. 100.000	INWILIO	
0000			04-1590850				MML Mezzanine Investor III, LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			, U- 100000U .				must mozzaillic ilivestoi iii, tto		IVI /\	Massachusetts Mutual Life Insurance	Omilio 3111p		LIV	
0000			27-3576835 .				MassMutual External Benefits Group LLC	DE	NIA	Company	Ownership.	100.000	MMLIC	
0000			27 0070000 .				massimutuar Externar Benefits aroup EEO			Massachusetts Mutual Life Insurance	- Owner Strip		WILL TO	
0000			04-1590850				MML Re Finance LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
							THE TO THIS ELO			Massachusetts Mutual Life Insurance				
0000			56-2574604 .				Invicta Advisors LLC	DE	NI A	Company	Ownership	100.000	MMLIC	
			00 207 1001 1				THE TOTAL NATION OF LEG			Massachusetts Mutual Life Insurance				
0000			27-0105644				Jefferies Finance LLC	DE	NIA	Company	Ownership	45.000	MMLIC	11
0000			27-0105644 .				Jefferies Finance LLC	DE	NIA	Babson Capital Management LLC	Ownership.	5.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-1590850 .		0000067160		MML Private Equity Fund Investor LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			04-1590850 _				MM Private Equity Intercontinental LLC	DE	NIA	MML Private Equity Fund Investor LLC	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-1590850 .				100 w. 3rd Street LLC	DE	NI A	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-1590850 .				300 South Tryon Hotel LLC	DE	NI A	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-1590850 .				300 South Tryon LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			20-3887968 .				54 West Capital LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000		1	10 170000-			1	Alamataia Taman Ing 1900	D=		Massachusetts Mutual Life Insurance	0	400 000	188 10	
0000			16-1720387 .				Alexandria Towers Investors LLC	DE	NIA	Company	Ownership	100.000	- MMLIC	
0000			00 4044400				Cambai dan Hadal III C	חר	NII A	Massachusetts Mutual Life Insurance	O	100 000	INH IC	
0000			06-1614196 .				Cambridge Hotel, LLC	DE	NIA	CompanyMassachusetts Mutual Life Insurance	Ownership	100.000	- MMLIC	
0000		1	04-1590850 .			1	Cheyenne Mountain Resort LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MMLIC	
0000			U4-108000U .				olieyenne Mountain nesort LLC	UE	NI A	Massachusetts Mutual Life Insurance	Owner SITP		. IVWIL I C	
0000		1	71-0908077 .			1	Cornerstone Partners IV LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			1 1 0000011				OUTHORS COME FOR CHIEFS TV LLU	UE		Massachusetts Mutual Life Insurance				
0000			20-3887968				E-Wise Land Venture LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
		-					Edila fortaro ELO			Massachusetts Mutual Life Insurance				
0000			20-3887968 .				Kazwell Realty Partners LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										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	NIA	Company	Ownership	100.000	MMLIC	

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											Of 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)	*
						,			,	Massachusetts Mutual Life Insurance			1 3 (1 2) 1 2 1 (1)	
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			00 07:007:				B	DE.		Massachusetts Mutual Life Insurance		400 000		
0000			. 30-0713071 .				Riva Portland LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			E4 0055770				Budadilla Tana Osatan III O	1/4	MILA	Massachusetts Mutual Life Insurance	0	100 000	100	
0000			. 54–2055778 .				Rockville Town Center LLC	VA	NIA		Ownership	100.000	MMLIC	
0000			46-5491311				Seattle 1415 Hotel Owner LLC	DE	NIA	Massachusetts Mutual Life Insurance Company	Ownership	100.000	MILIC	
0000			. 46-3491311 .				Seattle 1415 Hotel Owner LLC	UE	NIA	Massachusetts Mutual Life Insurance	Ownership		MMLIC	
0000			04-1590850				Sedona TFMP Land LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			. 04-1390030 .				Sedolia IFWF Land LLC			Massachusetts Mutual Life Insurance	Owner strip		IMML10	
0000			. 04-1590850 .				South Myrtle Monrovia MM LLC	DE	NIA	Company	Ownership	100.000	MML1C	
0000			. 04-1390030 .				South myrtre monrovia mm LLC		NI /\	Massachusetts Mutual Life Insurance	owner sirrp			
0000			20-3887968				South Pasco Properties LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
			20 0001000 :				Courti Facco Freportion EEO			Massachusetts Mutual Life Insurance	01110101117		THE TO	
0000			04-1590850				West 46th Street Hotel LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000							Almack Mezzanine Fund I LP	GBR	NIA	Company	Ownership	35.700	MMLIC	
0000							Almack Mezzanine Fund I LP	GBR	NIA	C.M. Life Insurance Company	Ownership	4.000	MMLIC	
0000							Almack Mezzanine Fund I LP	GBR	NIA	Babson Capital Europe Limited	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Company	Ownership	73.800	MMLIC	
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	NIA	Company	Ownership	34.600	MMLIC	
0000							Almack Mezzanine Fund III LP	GBR	NIA	C.M. Life Insurance Company	Ownership	3.800		
0000			-				Almack Mezzanine Fund III LP	GBR	NIA	Babson Capital Europe Limited	Management		MMLIC	
0000			EE 0000100		0001321302		Babson Capital High Yield LLC	DE	NIA	Massachusetts Mutual Life Insurance	Ownership	00 200		
0000			. 55-0886109 . . 55-0886109 .		0001321302		Babson Capital High Yield LLC	DE	NIA NIA	Company	Ownership			
0000			55-0886109		0001321302		Babson Capital High Yield LLC	DE	NIA	Babson Capital Management LLC	Management	11.000	MMLIC	
			. 601 0000 003 .		2000 102 1002		Babson Capital Floating Rate Income Fund,		NI //		manayement		WINE I V	
0000			27-3330830		0001521404		L.P.	DE	NIA	MassMutual Holding LLC	Ownership	9.900	MMLIC	
					1704		Babson Capital Floating Rate Income Fund,			indoonated flording LEO	σιοι σιτιρ			
0000			27-3330830		0001521404		L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
			1				Babson Capital Global Special Situation			Massachusetts Mutual Life Insurance				
0000		l	98-1206017	l			Credit Fund 2	DE	NIA	Company	Ownership	23.900	MMLIC	
							Babson Capital Global Special Situation			1 1			-	
0000			98-1206017 .				Credit Fund 2	DE	NIA	C.M. Life Insurance Company	Ownership	1.500	MMLIC	
							Babson Capital Global Special Situation			, , , , , , , , , , , , , , , , , , , ,	,			
0000			98-1206017 .				Credit Fund 2	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
							Babson Capital Global Investment Funds plc			Massachusetts Mutual Life Insurance	-			
0000					0001502146			JRL	NIA	Company	Ownership	0.400	MMLIC	
							Babson Capital Global Investment Fund 2			Massachusetts Mutual Life Insurance				
0000					0001582591		plc	JRL	NIA	Company	Ownership	4.200	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	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)	*
Oodc	Group Name	Oodc	Number	HOOD	Oiix	international)	Babson Capital Global Investment Fund 2	tion	Littity	(Ivaine of Entity/I cison)	Other)	lage	Entity(ICS)/1 C13011(3)	+
0000					0001582591		plc	JRL	NIA	Babson Capital Management LLC	Management		MMLIC	
0000					. 10001302391		pic	I NL	NI /\	Massachusetts Mutual Life Insurance	management		- INVILLIO	
0000					0001515694		Babson Capital Global Umbrella Fund plc	JRL	NIA	Company	Ownership.	59.500	MMLIC	
0000					0001515694		Babson Capital Global Umbrella Fund plc	JRL	NIA	Babson Capital Europe Ltd	Management	59.500	MMLIC	
0000					1000 15 15094		Babson Capital Global Umbrella Fund pic	JKL	NIA	Massachusetts Mutual Life Insurance	management		NINLIC	
0000			37-1506417				Deben On Heller Obertenin Ford I D	DE	NIA		0	70.000	MMLIC	
0000							Babson Capital Loan Strategies Fund, L.P.	DE		Company	Ownership	78.600		
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	NIA	Babson Capital Management LLC	Management		- MMLIC	
0000							Babson CLO Ltd. 2005-III	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	3
0000				-			Babson CLO Ltd. 2006-II	CYM	NIA	Babson Capital Management LLC	Influence		- MMLIC	7
0000							Babson CLO Ltd. 2007-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	8
0000							Babson CLO Ltd. 2011-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson CLO Ltd. 2012-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson CLO Ltd. 2012-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson CLO Ltd. 2013-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	11
0000			98-1128827				Babson CLO Ltd. 2013-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	12
0000							Babson CLO Ltd. 2014-I	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Babson CLO Ltd. 2014-II	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	13
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	14
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			46-3133952				Babson Global Floating Rate Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-3133952				Babson Global Floating Rate Fund	MA	NIA	Company	Ownership	31.900	MMLIC	
							Babson Global Income Opportunities Credit							
0000			46-3119764				Fund	MA	NIA	Babson Capital Management LLC	Management		MMLIC	
							Babson Global Income Opportunities Credit			Massachusetts Mutual Life Insurance		-		
0000			46-3119764				Fund	MA	NIA	Company	Ownership.	66.600	MMLIC	
			10 0110701				T did			Massachusetts Mutual Life Insurance	owner on p			
0000			47-3971963				Babson Investment Grade CLO Debt Fund LP	DE	NIA	Company	Ownership	100,000		
0000			47-3971963				Babson Investment Grade CLO Debt Fund LP	DE	NIA	Babson Capital Management LLC	Management	100.000		
0000			47 037 1300				Babson Mid-Market CLO Ltd. 2007-11	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	2
0000			98-0536233				Benton Street Partners I. L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership.	98.900	MMLIC	2
0000		-	98-0536233	1			Benton Street Partners I, L.P.	CYM	NIA	Babson Capital Management LLC	Management	30.300	MMLIC	
0000			98-0536233				Benton Street Partners I. L.P.	CYM	NIA	C.M. Life Insurance Company	Ownership	0.100	MMLIC	
0000			90-0000200				Denton Street Farthers 1, L.F.	UTWL	NIA	Massachusetts Mutual Life Insurance	Owner Strip	0. 100	. INMLIC	
0000			98-0536233				Don't on Other of Don't on the D	CYM	NIA		0	1.000	MMLIC	
0000			98-0536233				Benton Street Partners I, L.P.	VYM	NIA	Company	Ownership	1.000	MMLIC	
0000			00 0500400					CYM		Massachusetts Mutual Life Insurance	0 1:	07.000		_
0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	Company	Ownership	87.900	MMLIC	5
0000			98-0536199				Benton Street Partners II, L.P.	CYM	NIA	MassMutual Capital Partners LLC	Ownership	10.900	MMLIC	
0000			98-0536199	-			Benton Street Partners II, L.P.	CYM	NIA	Babson Capital Management LLC	Management	-	- MMLIC	
0000				-			Clear Lake CLO, Ltd.	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
1				1	I		Connecticut Valley Structured Credit CDO							
0000							II, Ltd	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	9
				1	I		Connecticut Valley Structured Credit CDO							
0000							III, Ltd	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000				-			Diamond Lake CLO, Ltd.	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	4
0000				4007418			Duchess I CDO S.A.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000			J	4007445			Duchess III CDO S.A.	GBR	NI A	Babson Capital Management LLC	Influence		MML1C	

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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)	*
0000							Duchess IV CDO S.A.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Duchess V CDO S.A	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000				3981641			Duchess VI CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000				4007502			Duchess VII CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000			-				Fugu CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	6
0000							Fugu Credit Plc	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	6
										Massachusetts Mutual Life Insurance				
0000			80-0691253	-	0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Company	Ownership	77.000	MMLIC	-
0000			80-0691253	-	0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	C.M. Life Insurance Company	Ownership	13.500		-
0000			80-0691253	-	0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	MassMutual Holding LLC	Ownership	9.500	MMLIC	-
0000			80-0691253	-	0001517196		Gateway Mezzanine Partners I, L.P.	DE	NIA	Babson Capital Management LLC	Management		MMLIC	-
0000							Gateway Mezzanine Partners I Trust	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000			00 0004405		0004507544		Out - North Dont - D. I. I.D.	DE	NILA	Massachusetts Mutual Life Insurance	0	05 500	MMLIC	
0000			90-0991195		0001597511 0001597511		Gateway Mezzanine Partners II LP	DE	NIA NIA	C.M. Life Insurance Company	Ownership Ownership	35.500	MMLIC	
0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA NIA	MassMutual Holding LLC	Ownership	5.300	MMLIC	
0000			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Babson Capital Management LLC	Management	5.300	MMLIC	
0000			30-0331133		0001397311		dateway wezzaiiiie Fai tileis II LF	UE		Massachusetts Mutual Life Insurance	Management	-	- INMILIO	-
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	
0000			7 1 10 10 10 10 4				dieat Lakes II LLO		NI /\	Massachusetts Mutual Life Insurance	Owner Sirrp	1.000	WWLTO	-
0000			37-1708623		0001565779		Great Lakes III. L.P.	DE	NIA	Company	Ownership.	35.700	MMLIC	
0000			37-1708623		0001565779		Great Lakes III, L.P.	DE	NIA	Babson Capital Management LLC	Management		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	MMLIC	
0000			46-2344300				Intermodal Holdings II LLC	DE	NIA	Wood Creek Capital Management LLC	Influence		MMLIC	
0000							Malin CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Rockall CLO B.V.	GBR	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Saint James River CDO, Ltd.	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000							Sapphire Valley CDO I, Ltd	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	10
										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			20-8856877		0001409910		Somerset Special Opportunities Fund L.P	DE	NI A	Company	Ownership	61.400	MMLIC	-
0000			20-8856877		0001409910		Somerset Special Opportunities Fund L.P	DE	NIA	C.M. Life Insurance Company	Ownership	2.900	MMLIC	
0000			. 20-8856877		0001409910		Somerset Special Opportunities Fund L.P	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
0000			04 0700000		0004000750		T O O. it. I D. ata I D	DE	NIA	Massachusetts Mutual Life Insurance	Ownership	42.700	MMLIC	
0000			04-3722906 04-3722906		0001228752 0001228752		Tower Square Capital Partners, L.P.	DE	NIA NIA	Company	Ownership		MMLIC	
0000			04-3722906		0001228752		Tower Square Capital Partners, L.P.	DE	NIA	C.M. Life Insurance Company Babson Capital Management LLC	Management	0.700	MMLIC	
0000			04-3722906	1	0001228752		Tower Square Capital Partners, L.P	DE	NIA NIA	MassMutual Holding LLC	Ownership	3.500	MMLIC	-
			. 04-3122800	1	0001220102		TOWER Square Capital Faithers, L.P.	VE	IN I M	Massachusetts Mutual Life Insurance	Owner 2016	3.300	- WWML U	-
0000			30-0336246	1	0001345379		Tower Square Capital Partners II, L.P	DE	NIA	Company	Ownership	25.800	MMLIC	
0000			30-0336246	1	0001345379		Tower Square Capital Partners II. L.P.	DE	NIA	C.M. Life Insurance Company	Ownership.	2. 100	MMLIC	-
0000			30-0336246	1	0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	Babson Capital Management LLC	Management	2. 100	MMLIC	-
0000			30-0336246		0001345379		Tower Square Capital Partners II, L.P.	DE	NIA	MassMutual Holding LLC	Ownership.	4.600	MMLIC	-
5555					2201010070		Tono. Oqualo oupitul luitilolo II, E.I.			Massachusetts Mutual Life Insurance				
0000			32-0160190				Tower Square Capital Partners II-A, L.P.	DE	NIA	Company	Ownership	76.800	MMLIC	
0000			32-0160190				Tower Square Capital Partners II-A, L.P	DE		C.M. Life Insurance Company	Ownership	13 . 600	MMLIC	
										, and the second				

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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-	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			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	3.100	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			41-2280127 .		0001447547		Tower Square Capital Partners III, L.P	DE	NI A	Company	Ownership	19 . 100		
										Massachusetts Mutual Life Insurance				
0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P	DE	NIA	Company	Ownership	86.400	MMLIC	
0000			41-2280129		0001447548		Tower Square Capital Partners IIIA, L.P	DE	NIA	Babson Capital Management LLC	Management		MMLIC	
0000			80-0920340		0001597019		Tower Square Capital Partners IV, L.P.	DE	NIA	Babson Capital Management LLC	Management			-
0000			80-0920367		0001598727		Tower Square Capital Partners IV-A, L.P	DE	NIA	MassMutual Holding LLC	Ownership	17.900		
0000			80-0920367 .		0001598727		Tower Square Capital Partners IV-A, L.P	DE		Babson Capital Management LLC	Management			
0000							Whately CDO, Ltd.	CYM	NIA	Babson Capital Management LLC	Influence		MMLIC	
0000			00 4004000		0001371601		Wood Oncole Mold: Acced Found 1 D	DE	NII A	Massachusetts Mutual Life Insurance	0	.100.000	MMLIC	
0000			20-4981369 ₋ 20-4981369 ₋		0001371601		Wood Creek Multi Asset Fund, L.P	DE DE	NIA NIA	Company	Ownership Management	100.000	MMLIC	
0000			20-4981309		0001371001		WOOD Creek Multi Asset Fund, L.P.	DE	NIA	Babson Capital Management LLC	management			
0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Company	Ownership	40.000	MMLIC	
0000			04-1390630				WOOD Greek Venture Fund LLC			Massachusetts Mutual Life Insurance	Owner strip	40.000		
0000							Baring Emerging Market Corp Debt Fund	JRL	NIA	Company	Ownership	83.100	MML1C	
0000							Baring Emerging Market Corp Debt Fund	JRL	NIA	Baring Asset Management Limited	Management	03. 100	MLIC	
0000							barring Emergring market our p best rand			Massachusetts Mutual Life Insurance	management		WINE TO	
0000			11-3789446				Baring Focused EAFE Equity Fund	DE	NIA	Company	Ownership	43.500	MMLIC	
0000			11-3789446				Baring Focused EAFE Equity Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC	
0000			01-0850479		0001443715		Baring Focused International Equity Fund	DE		Baring Asset Management Limited	Management		MMLIC	
							Baring Global Dynamic Asset Allocation			Massachusetts Mutual Life Insurance				
0000			30-0607379 .		0001497049		Fund	DE	NIA	Company	Ownership	89.900	MMLIC	
							Baring Global Dynamic Asset Allocation			, ,				
0000			. 30-0607379 .		0001497049		Fund	DE	NIA	Baring Asset Management Limited	Management		MMLIC	
0000			. 39-2059577 .		0001491482		Baring International Equity Fund	DE	NI A	Baring Asset Management Limited	Management		MMLIC	
							Baring International Small Cap Equity Fund			Massachusetts Mutual Life Insurance				
0000			26-4142796 .					DE	NIA	Company	Ownership	100.000	MMLIC	
							Baring International Small Cap Equity Fund							
0000			26-4142796 .					DE	NIA	Baring Asset Management Limited	Management		MMLIC	-
0000			46-1197222 .				Baring World Equity Fund	DE	NIA	Baring Asset Management Limited	Influence		MMLIC	-
0000			06 1006000				Multi-Employer Global Aggregate	DE	NIA	Daning Asset Management Limited	Management		MMLIC	
0000			26-1896226 .				Diversified Portfolio	DE	NI Ä	Baring Asset Management Limited Massachusetts Mutual Life Insurance	Management			
0000			20-2548283 .				12-10 Hest 33th Street Fredeveropment, LLC	DE	NIA	Company	Ownership	89.000	MILIC	
0000			_ LU _ LU+ULU\ .				12-18 West 55th Street Predevelopment, LLC		NIA	ouiipariy	Omisi sirip	000.60		
0000			20-2548283				12 10 most ooth otreet redevelopment, LLO	DE	NIA	C.M. Life Insurance Company	Ownership	7.700	MMLIC	
5555										Massachusetts Mutual Life Insurance				
0000			46-4803557				2 Harbor Shore Member LLC	DE	NIA	Company	Ownership	91.000	MMLIC	
0000			46-4803557				2 Harbor Shore Member 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	91.300	MMLIC	
0000			45-5257904 .				21 West 86 LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.800	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			45-2779931 .				AT Mid-Atlantic Office Portfolio LLC	DE	NIA	Company	Ownership	90.000	MMLIC	
0000			45-2779931 .				AT Mid-Atlantic Office Portfolio LLC	DE	NIA	C.M. Life Insurance Company	Ownership	10.000		
										Massachusetts Mutual Life Insurance				
0000			20-4570515 .		0001362970		Babson Mezzanine Realty Investors I	DE	NIA	Company	Ownership	35.100		_

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						Exchange		Domi-	ship		Management,	ship		
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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)	*
0000			20-4570515		. 0001362970		Babson Mezzanine Realty Investors I	DE	NIA	C.M. Life Insurance Company	Ownership	1.800	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	60.300	MMLIC	
0000			. 24-1446970		. 0001362970		Babson Mezzanine Realty Investors II	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance				
0000			. 04-1590850				CHC/RFP VI Core LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
0000		-	27-1701733		. 0001481753		Cornerstone Core Mortgage Fund I LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
										Massachusetts Mutual Life Insurance			l	
0000		-	27-1701622		. 0001481752		Cornerstone Core Mortgage Venture I LP	DE	NIA	Company	Ownership	50.000	MMLIC	
0000		-	27-1701622		. 0001481752		Cornerstone Core Mortgage Venture I LP	DE	NIA	Cornerstone Real Estate Advisers LLC	. Management		MMLIC	
0000			. 45–3751572		. 0001534877		Cornerstone Enhanced Mortgage Fund I LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Ownership	. 15.900	MMLIC	
0000								DE		Massachusetts Mutual Life Insurance		04 400	188.10	
0000			. 56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	Company	Ownership	84.400	MMLIC	
0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.600	MMLIC	
2000			00 0700754					DE		Massachusetts Mutual Life Insurance		00.000	188 10	
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		
0000			20-8730751				Cornerstone Global Real Estate LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Management		MMLIC	
0000			00 4770040		0004500040		O III ob Wield Verten. IB	DE	ALLA	Massachusetts Mutual Life Insurance	O manuful:	F0, 000	INH 10	
0000			36-4770946 36-4770946		. 0001590049		Cornerstone High Yield Venture LP	DE	NIA NIA	Company	Ownership	50.000	MMLICMMLIC	
0000			30-4//0946		. 0001590049		Cornerstone High Yield Venture LP	DE	NIA	Cornerstone Real Estate Advisers LLC Massachusetts Mutual Life Insurance	Management		MMLTC	
0000			26-1828760		0001423638		Cornerstone Hotel Income & Equity Fund II	DE	NIA	Company	Ownership	16.900	MMLIC	
0000			20-1020700 .		. 0001423030		LF	UE	NIA	Massachusetts Mutual Life Insurance	Ownership	10.900	WWLIC	
0000			20-5578089				Cornerstone Patriot Fund LP	DE	NIA	Company	Ownership	100.000	MMLIC	
0000			27-0547156				Cornerstone Real Estate Fund VIII LP	DE	NIA	Cornerstone Real Estate Advisers LLC	Ownership	12.700	MMLIC	
0000			21-0041 100				Connerstone near Estate Fund vill Er			Massachusetts Mutual Life Insurance	- Owner strip	12.700		
0000			45-2632610				Cornerstone Permanent Mortgage Fund	DE	NIA	Company	Ownership	100.000	MMLIC	
0000		-					dorner stone i erimanent mor tgage i ana			Massachusetts Mutual Life Insurance	omici sirip.		WILL TO	
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Company	Ownership	9.000	MMLIC	
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	C.M. Life Insurance Company	Ownership	1.000	MMLIC	
			1					-		Massachusetts Mutual Life Insurance				
0000		.	46-5001122	1	.1		CREA 330 Third LLC	DE	NIA	Company	Ownership	92.000	MMLIC	
0000		.	46-5001122				CREA 330 Third LLC	DE	NIA	C.M. Life Insurance Company	Ownership.	8.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-4367364				CREA FMF Nashville LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
										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	
			1							Massachusetts Mutual Life Insurance				
0000			20-0348173	.			CREA/PPC Venture LLC	DE	NIA	Company	Ownership	93.400	MMLIC	
0000		.	20-0348173	.			CREA/PPC Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.600	MMLIC	
			1							Massachusetts Mutual Life Insurance				
0000			. 26-1611591	. 3956836			Fallon Cornerstone One MPD LLC	DE	NIA	Company	Ownership	61.400	MMLIC	
0000			. 26-1611591	3956836			Fallon Cornerstone One MPD LLC	DE	NIA	C.M. Life Insurance Company	Ownership	6.100	MMLIC	
			1					1		Massachusetts Mutual Life Insurance				
0000			. 20-3347091				Fan Pier Development LLC	DE	NIA	Company	Ownership	88.800	MMLIC	
0000			20-3347091	-			Fan Pier Development LLC	DE	NIA	C.M. Life Insurance Company	Ownership	8.800	MMLIC	
			1					1		Massachusetts Mutual Life Insurance		1	l	
0000		. [46-3880526		.		Farringdon London Holdings LLC	DE	NIA	Company	Ownership	94.500	MML1C	

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						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			46-3880526 .				Farringdon London Holdings LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.500	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			46-1586427 .				Gracechurch London Holdings LLC	DE	NIA	Company	Ownership	96.000	MMLIC	
0000			46-1586427 .				Gracechurch London Holdings LLC	DE	NIA	C.M. Life Insurance Company	Ownership	4.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000							Infinity SCD Ltd	GBR	NIA	Company	Ownership	4.200	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			20-4819358 .				Johnston Groves LLC	DE	NIA	Company	Ownership	57.200	MMLIC	
0000			00 500:355					DE		Massachusetts Mutual Life Insurance		00.500	188 10	
0000		-	20-5984759 .				Metropolitan At Lorton	DE	NIA	Company	Ownership	93.500	MMLIC	
0000			. 20-5984759 .				Metropolitan At Lorton	DE	NI A	C.M. Life Insurance Company	Ownership	6.500	MMLIC	
0000			40 00470::					DE	l	Massachusetts Mutual Life Insurance		04 000	188.10	
0000			46-3317841 .	-			MM Greenhill Office LLC	DE	NIA	Company	Ownership	81.000	MMLIC	
0000			46-3317841 .				MM Greenhill Office LLC	DE	NIA	C.M. Life Insurance Company	Ownership	19.000	MMLIC	
2000			40 5047040				1111	DE		Massachusetts Mutual Life Insurance		00.000		
0000			46-5347643				MMI/Hines Harrison LLC	DE	NIA	Company	Ownership	82.800	MMLIC	
0000		-	46-5347643				MMI/Hines Harrison LLC	DE	NIA	C.M. Life Insurance Company	Ownership	7.200	MMLIC	
0000			40 4077050				MI W 17: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DE		Massachusetts Mutual Life Insurance		00.400		
0000			46-4077059 .				MM Woodfield Martingale LLC	DE	NIA	Company	Ownership	80.400	MMLIC	
0000			. 46–4077059 .				MM Woodfield Martingale LLC	DE	NIA	C.M. Life Insurance Company	Ownership	19.600	MMLIC	
0000							Salomon Brothers Commercial Mortgage Trust 2001-MM	DE	NII A	0	In Ohmon		MMLIC	
0000							200 I-MM	DE	NIA	Cornerstone Real Estate Advisers LLC Massachusetts Mutual Life Insurance	Influence		MMLIC	
0000			27-2977720 _				Compress Village Cheming Center IIC	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	
0000			46-3465271				SBNP STA LLC	DE	NIA	Cornerstone Real Estate Advisers LLC	Influence	13.600	MMLIC	
0000			40-3403271.				SDINF STA LLC	VE	INTA	Massachusetts Mutual Life Insurance	I'lli ruelice		WWILTO	
0000			35-2484550 .				Twenty Two Liberty LLC	MA	NIA	Company	Ownership	69.600		
0000			35-2484550 .				Twenty Two Liberty LLC	MA	NIA	C.M. Life Insurance Company	Ownership.	6.900	MMLIC	
0000			. 000 2404000 .				Twenty Two Elberty LEO	III/C		Massachusetts Mutual Life Insurance	Office Strip.	0.000		
0000			45-4606547 .				UK LIW Manager LLC	DE	NIA	Company	Ownership.	1.000	MMLIC	
0000			. 10 1000017 .				Or Ern managor EEO			Massachusetts Mutual Life Insurance	Omnor on rp			
0000			45-4606547				UK LIW Member LLC	DE	NIA	Company	Ownership	99.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000		.	47-1855920 .	l	l	<u> </u>	U.S. Buyer Broadcasting LLC	DE	NIA	Company	Ownership	12.700		
										Massachusetts Mutual Life Insurance				
0000			45-5401109 .				Washington Gateway Apartments Venture LLC .	DE	NIA	Company	Ownership	91.000	MMLIC	
0000			45-5401109				Washington Gateway Apartments Venture LLC .	DE	NIA	C.M. Life Insurance Company	Ownership.	4.800	MMLIC	
							, ,			Massachusetts Mutual Life Insurance	,			
0000			20-2970495 .				Waterford Development Associates	DE	NIA	Company	Ownership	90.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000		.	47-1993493			.	Waterloo London Holdings LLC	DE	NIA	Company	Ownership	100.000	MMLIC	
							_			Massachusetts Mutual Life Insurance	·			
0000			46-3122029 .				WeHo Domain LLC	DE	NIA	Company	Ownership	86.000	MMLIC	
0000			46-3122029 .				WeHo Domain LLC	DE	NIA	C.M. Life Insurance Company	Ownership	14.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			20-5481477 .				Ygnatio Valley Funding	DE	NIA	Company	Ownership	90.000	MMLIC	
							MassMutual Barings Dynamic Allocation Fund			Massachusetts Mutual Life Insurance				
0000			45-3168892 .			. OQ		MA	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000		.	04-3212054		0000927972	. OQ	MassMutual Premier Balanced Fund	MA	NI A	Company	Ownership	7.200	MMLIC	

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				-							Type	lf		
											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)	*
										Massachusetts Mutual Life Insurance				
0000			04-3277549 .		0000927972 .	. 0Q	MassMutual Premier Core Bond Fund	MA	NIA	Company	Ownership	2.000	. MMLIC	
						1				Massachusetts Mutual Life Insurance				
0000			. 04-3539083 .		0000927972 .	. 00	MassMutual Premier Disciplined Value Fund	MA	NIA	Company	Ownership	8.400	MMLIC	
0000			04 0500004		0000007070	00	MassMutual Premier Disciplined Growth Fund	***	NILA	Massachusetts Mutual Life Insurance	0h :	0.000	104 10	
0000			04-3539084 .		0000927972 .	. 00		MA	NIA	Company	Ownership	6.600	MMLIC	
0000			04 0404405		0000007070	00	No Modern I. Donnellon Disconnictived Deced Front	MA	NILA	Massachusetts Mutual Life Insurance	0	10,000	100	
0000			04-3464165 .		0000927972 _	. ^{QQ}	MassMutual Premier Diversified Bond Fund	MA	NIA	Company	Ownership	. 10.900	. MMLIC	
0000			02-0754273 .		0000927972 .	00	MassMutual Premier Focused International Fund	MA	NIA		Ownership	0.000	MMLIC	
0000			02-0/042/3.		000092/9/2.	. 04	ruiiu	MA	NIA	Company Massachusetts Mutual Life Insurance	Ownership	0.000	NINIL I U	
0000			51-0529334		0000927972	00	MassMutual Premier Global Fund	MA	NIA	Company	Ownership	16.000	MML1C	
0000			. 01-0023004 .		0000321312 .		ייים איים וויים של איים וויים של היים וויים ו	WA	IN I M	Massachusetts Mutual Life Insurance		10.000	. WINLIV	
0000			04-3520009 .		0000927972 .	00	MassMutual Premier High Yield Fund	MA	NIA	Company	Ownership.	16.400	MMLIC	
0000			. 04 3320003 .		0000321312 .	. Ou	MassMutual Premier Inflation-Protected and	IW/\		Massachusetts Mutual Life Insurance	Owner Sirry	. 10.400	LTO	
0000			03-0532475		0000927972	00	Income Fund	MA	NIA	Company	Ownership	10. 100	MMLIC	
0000			00 0002470 .		0000021012	. 04	MassMutual Premier International Equity			Massachusetts Mutual Life Insurance	Offici dirip	10. 100	- WINE 10	
0000			04-3212044 .		0000927972 .	00	Fund	MA	NIA	Company	Ownership	5. 100	MML1C	
5000			04 02 12044 .		0000021012	- Oq	Tunu			Massachusetts Mutual Life Insurance	omici sirip			
0000			51-0529328		0000927972 .	00	MassMutual Premier Main Street Fund	MA	NIA	Company	Ownership	49.800	MMLIC	
			01 0020020 :				MassMutual Premier Short-Duration Bond			Massachusetts Mutual Life Insurance		10.000		
0000			04-3212057 .		0000927972 .	00	Fund	MA	NIA	Company	Ownership	39.100	MMLIC	
							MassMutual Premier Small/Mid Cap			Massachusetts Mutual Life Insurance				
0000			04-3224705 .		0000927972	00	Opportunities Fund	MA	NIA	Company	Ownership	11.800	MMLIC	
							MassMutual Premier Strategic Emerging			Massachusetts Mutual Life Insurance	,	-		
0000			26-3229251 .		0000927972 .	00	Markets Fund	MA	NIA	Company	Ownership	35.600		
										Massachusetts Mutual Life Insurance	·			
0000			04-3277550 .		0000927972 .	. OQ	MassMutual Premier Value Fund	MA	NIA	Company	Ownership	98.100		
							MassMutual Select Blackrock Global			Massachusetts Mutual Life Insurance				
0000			27-1028263 .		0000916053 .	. OQ	Allocation Fund	MA	NIA	Company	Ownership	5.000	. MMLIC	
										Massachusetts Mutual Life Insurance				
0000			04-3556992 .		0000916053 .	. 00	MassMutual Select Blue Chip Growth Fund	MA	NIA	Company	Ownership	5.900	. MMLIC	
							MassMutual Select Diversified			Massachusetts Mutual Life Insurance				
0000		.	14-1980900 .		0000916053 .	. OQ	International Fund	MA	NIA	Company	Ownership	92.500	. MMLIC	
1			1					l		Massachusetts Mutual Life Insurance				
0000			01-0821120 .		0000916053 .	. OQ	MassMutual Select Diversified Value Fund	MA	NIA	Company	Ownership	41.400	- MMLIC	
0000			04 05:0500		0000010055	00				Massachusetts Mutual Life Insurance		4		
0000			04-3512590 .		0000916053 .	. UU	MassMutual Select Focused Value Fund	MA	NIA	Company	Ownership	4.000	MMLIC	
0000			04 0540500		0000040050	00	Manakhutural Calant Fundamental Constitution	MA.	ALLA	Massachusetts Mutual Life Insurance	O	00.000	IMI IC	
0000			04-3512593 .		0000916053 .	. W	MassMutual Select Fundamental Growth Fund	MA	NIA	Company	Ownership	99.800	MMLIC	
0000			04-3584138		0000016052	00	Manahlutual Calant Fundamental Value Find	MA	MILA	Massachusetts Mutual Life Insurance	Ownership	2 000	MMLIC	
0000		-	. 04-3064136 .		0000916053	. VV	MassMutual Select Fundamental Value Fund MassMutual Select Growth Opportunities	MA	NIA	Company	Ownership	3.800	INVINIL TO	
0000			04-3512589 .		0000916053	00	Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	2.200	MMLIC	
0000			. 04-3012389 .		. SCOOI 60000	. VV	runu	MA	IN 1 A	Massachusetts Mutual Life Insurance	Ownership	2.200	INVINIL TO	
0000			04-3513019 .		0000916053 .	00	MassMutual Select Large Cap Value Fund	MA	NIA	Company	Ownership.	5.200		
0000			. 04-0010018 .		. 86000 60000		MassMutual Select Mid Cap Growth Equity II	mA	N1 M	Massachusetts Mutual Life Insurance			WINLIU	
0000			04-3512596		0000916053	00	Fund	MA	NIA	Company	Ownership	1.800		
0000			. 00012030 .		. 00000 60000	. 04	I unu	IWA		Massachusetts Mutual Life Insurance	- Ισπιοι σιτιρ	1.000	. INTILL I V	
0000			42-1710935		0000916053	00	MassMutual Select Mid-Cap Value Fund	MA	NIA	Company	Ownership	99.800	MMLIC	
		.		1	20000 10000	. ~ ~	massimulati octool mid oup varue ruid	m/\		-	vv i v i i i p	_ 00.000		

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					-						Type	lf		
											of Control	Control		
											(Ownership,	is		
						Name of Securities			Relation-		Board,	Owner-		
						Exchange		Domi-	ship		Management,	ship		
		NAIC				if Publicly Traded	Names of	ciliary	to	5: " 6 : " 11	Attorney-in-Fact,	Provide		
Group	Craum Nama	Company	ID	Federal RSSD	CIK	(U.S. or International)	Parent, Subsidiaries Or Affiliates	Loca-	Reporting Entity	Directly Controlled by (Name of Entity/Person)	Influence, Other)	Percen-	Ultimate Controlling Entity(ies)/Person(s)	*
Code	Group Name	Code	Number	กงงบ	CIK	international)	MassMutual Select MSCI EAFE International	tion	Entity	Massachusetts Mutual Life Insurance	Other)	tage	Entity(les)/Ferson(s)	
0000			45-5357167 .		0000916053	00	Index Fund	MA	NIA	Company	Ownership	1.300	MMLIC	
5000			140 0001 101 .		00000 10000		Tridex Fully			Massachusetts Mutual Life Insurance	omici sirip		WINE 10	
0000			04-3557000 .		0000916053		MassMutual Select Overseas Fund	MA	NIA	Company	Ownership	4.000	. MMLIC	
										Massachusetts Mutual Life Insurance	,			
0000			27-2377446 .		0000916053	00	MassMutual Select PIMCO Total Return Fund	MA	NIA	Company	Ownership	6.400	. MMLIC	
							MassMutual Select Russell 2000 Small Cap			Massachusetts Mutual Life Insurance				
0000			45-5366542 .		0000916053	00	Index Fund	MA	NIA	Company	Ownership	1.700	. MMLIC	
0000			04 0440047		0000040050	20	H H I I O I I O D FOO I I F			Massachusetts Mutual Life Insurance		0.000	188 10	
0000			. 04–3410047 .		0000916053	04	MassMutual Select S&P 500 Index Fund	MA	NI A	Company Massachusetts Mutual Life Insurance	Ownership	2.800	MMLIC	
0000			. 04-3464205 .		0000916053	00	MassMutual Select Small Cap Growth Equity Fund	MA	NIA	Company	Ownership	5.700	MMLIC	
0000			. 07-0404200 .		00000 10000		MassMutual Select Small Capital Value	WA	NI /\	Massachusetts Mutual Life Insurance	- Οπιτοι 3ιΙΙΡ		WINLIO	
0000			02-0769954 .		0000916053	00	Equity Fund	MA	NIA	Company	Ownership	99.800	MMLIC	
							MassMutual Select Small Company Growth			Massachusetts Mutual Life Insurance				
0000			04-3584141 .		0000916053	OQ	Fund	MA	NIA	Company	Ownership	100.000	MMLIC	
							MassMutual Select Small Company Value Fund			Massachusetts Mutual Life Insurance	·			
0000			04-3584140 .		0000916053	00		MA	NIA	Company	Ownership	2.200	. MMLIC	
										Massachusetts Mutual Life Insurance				
0000			45-5349772 .		0000916053	0Q	MassMutual Select S&P Mid Cap Index Fund	MA	NI A	Company	Ownership	3.400	MMLIC	
0000			00 000000		0000040000	00	North to Local Object of Dead Food		ALLA	Massachusetts Mutual Life Insurance	O manuful:	0.400	188 10	
0000			. 26-0099965 .		0000916053	04	MassMutual Select Strategic Bond Fund	MA	NIA	Company	Ownership	3.100	. MMLIC	
0000			46-4257056		0000067160		MML Series International Equity Fund	MA	NIA	Company	Ownership	10.800	MMLIC	
0000			140 4201000 .		0000007 100 .		www. ocrres international Equity rana			Massachusetts Mutual Life Insurance	Offici dirip		- INITE 10	
0000			47-3517233 .		0001317146		MML Series II Asset Momentum Fund	MA	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			47-3529636 .		0001317146		MML Series II Dynamic Bond Fund	MA	NIA	Company	Ownership	100.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			47-3544629 .		0001317146		MML Series II Equity Rotation Fund	MA	NIA	Company	Ownership	100.000	MMLIC	
0000			47 0550004		0004047440		NAME OF THE OFFICE OF THE PROPERTY OF THE PROP		ALLA	Massachusetts Mutual Life Insurance	O manuful:	100 000	188 10	
0000			47-3559064		0001317146		MML Series II Special Situations Fund	MA	NIA	Company	Ownership	100.000	MMLIC	
0000			03-0532456		0000916053		MassMutual RetireSMART 2010 Fund	MA	NIA	Company	Ownership	5. 100		
0000			. 00 0002400 .				mussmutuul lietii esiinii 2010 Lunu	ווו/\		Massachusetts Mutual Life Insurance	σπισι σπιρ		mmL1V	
0000			27-1933828 .		0000916053		MassMutual RetireSMART 2015 Fund	MA	NIA	Company	Ownership	5. 100		
										Massachusetts Mutual Life Insurance	,			
0000			03-0532467 .		0000916053		MassMutual RetireSMART 2020 Fund	MA	NIA	Company	Ownership	0.000	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			27-1933753 .		0000916053		MassMutual RetireSMART 2025 Fund	MA	NIA	Company	Ownership	2.400	. MMLIC	
0000			07 1000000		0000040050		Managhatana I Datina CHART 0005 Found	MA	NI A	Massachusetts Mutual Life Insurance	O-manah i	0.000	IMI IC	
0000			27-1933389 .		0000916053		MassMutual RetireSMART 2035 Fund	MA	NIA	Company	Ownership	2.900	. MMLIC	
0000			. 03-0532471 .		0000916053		MassMutual RetireSMART 2040 Fund	MA	NIA	Massachusetts Mutual Life Insurance Company	Ownership	3.600		
			. 00-00024/1.		. 66000 60000		massmutual netilesmani 2040 Fulid	WA	NI /\	Massachusetts Mutual Life Insurance	Οπιίοι 3ιΙΙ μ		WML10	
0000			27-1932769 .		0000916053		MassMutual RetireSMART 2045 Fund	MA	NIA	Company	Ownership.	12.500		
							200 000			Massachusetts Mutual Life Insurance				
0000			26-1345332 .		0000916053		MassMutual RetireSMART 2050 Fund	MA	NIA	Company	Ownership	10.800		
										Massachusetts Mutual Life Insurance				
0000			46-3289207		0000916053		MassMutual RetireSMART 2055 Fund	MA	NIA	Company	Ownership	17. 100	MMLIC	

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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.Ś. 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)	*
	•					,				Massachusetts Mutual Life Insurance	,	Ŭ	7 /	
0000			45-1618155		0000916053		MassMutual RetireSMART Conservative Fund	MA	NIA	Company	Ownership	40.700	MMLIC	
										Massachusetts Mutual Life Insurance				
0000			45-1618222 .		0000916053		MassMutual RetireSMART Growth Fund	MA	NIA	Company	Ownership.	30.700	MMLIC	
										Massachusetts Mutual Life Insurance	·			l l
0000			03-0532464 .		0000916053		MassMutual RetireSMART In Retirement Fund	MA	NIA	Company	Ownership	0.000	MMLIC	
										Massachusetts Mutual Life Insurance	·			ļ ļ
0000			45-1618262		0000916053		MassMutual RetireSMART Moderate Fund	MA	NIA	Company	Ownership	15.600	MMLIC	
							MassMutual RetireSMART Moderate Growth			Massachusetts Mutual Life Insurance				ļ
0000			45-1618046 .		0000916053		Fund	MA	NIA	Company	Ownership	19.700	MMLIC	
0000							HarbourView CLO 2006-1 Limited	CYM	NIA	OppenheimerFunds, Inc.	Influence		MMLIC	
0000							HarbourView CLO VII, Ltd	CYM	NIA	OppenheimerFunds, Inc.	Influence		MMLIC	
0000			45-3417590 .		0001530245		Oppenheimer Global High Yield Fund	DE	NIA	OppenheimerFunds, Inc.	Ownership	73.600	MMLIC	
										Massachusetts Mutual Life Insurance				ļ ļ
0000			46-1604428 .		0001562689		Oppenheimer Global Real Estate Fund	DE		Company	Ownership		MMLIC	
0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	C.M. Life Insurance Company	Ownership	3.700	MMLIC	
0000			46-1604428		0001562689		Oppenheimer Global Real Estate Fund	DE	NIA	OppenheimerFunds, Inc.	Management		MML1C	
										Massachusetts Mutual Life Insurance				ļ ļ
0000			13-3867060 .		0001005728		Oppenheimer International Growth Fund	MA	NIA	Company	Ownership	0.000	MMLIC	
										Massachusetts Mutual Life Insurance				l l
0000			84-1073463 .		0001116894		Oppenheimer Main Street Fund	MA	NIA	Company	Ownership	1.500	MMLIC	
							Oppenheimer Global Multi-Asset Income Fund			Massachusetts Mutual Life Insurance				
0000			47-1714929 .					DE	NIA	Company	Ownership	98.600	MMLIC	
										Massachusetts Mutual Life Insurance				ļ
0000			22-3849391		0001163166		Oppenheimer Real Estate Fund	MA	NIA	Company	Ownership	2.000	MMLIC	
														ļ

Asterisk	Explanation
Massachusetts Mutual Life Insurance Comp	any owns 1.33% of the affiliated debt of Jefferies Finance LLC
	son CLO Ltd. 2006-II, Babson CLO Ltd. 2007-I, Babson Capital Loan Strategies Fund, L.P., and Sapphire Valley CDO I, Ltd.
Debt investors own 23.4% and include Cor	necticut Valley Structured Credit CDO III, Ltd.I, Babson Capital Loan Strategies Fund, L.P., Babson CLO Ltd. 2006—II, Babson CLO Ltd. 2007—I, and Babson Mid-Market CLO Ltd. 2007—II
Debt investors own 1.6% and include Sapp	hire Valley CDO I, Ltd.
Partnership investors own 99% and include	e Babson Loan Strategies Fund, L.P.
Fugu Credit Plc owns 100% of the Fugu CL	
	phire Valley, Babson Capital Loan Strategies Fund, L.P., Babson CLO Ltd. 2007-I, and Babson Mid-Market CLO Ltd. 2007-II
	ecticut Valley CLO Fund IV, Ltd. and Babson Capital Loan Strategies Fund, L.P.
	ecticut Valley Structured Credit CDO III, Ltd.
	ly Babson Capital Loan Strategies Fund, L.P.
1 Debt investors own 5.1% and include Grea	t Lakes III, L.P. and Babson Capital Loan Strategies Fund, L.P.
2 Debt investors own 5.8% and include Grea	t Lakes III, L.P.
3 Debt investors own 7.5% and include Grea	t Lakes III, L.P.
4 Debt investors own 3.2% and include Grea	t Lakes III, L.P.

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

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

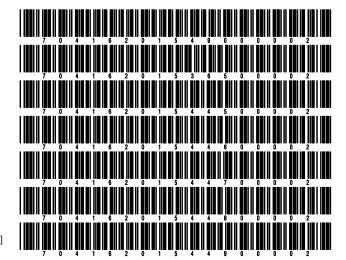
	<u>-</u>	Response
1.	Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
2.	Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
3.	Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
4.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
5.		NO
6.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average Market Value) be filed with the state of domicile and electronically with the NAIC?	NO
7.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) be filed with the state of domicile and electronically with the NAIC?	NO

Explanation:

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

Bar Code:

- 1. Trusteed Surplus Statement [Document Identifier 490]
- 2. Medicare Part D Coverage Supplement [Document Identifier 365]
- Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445]
- 4. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 446]
- 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]



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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 arryin valle		
7.	Deduct current year's other than temporary impailment religious to the control of		
8.	Deduct current year's depreciation		
9.	Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8)		
10.	Deduct total nonadmitted amounts		
11.	Statement value at end of current period (Line 9 minus Line 10)		

SCHEDULE B - VERIFICATION

Mortgage Loans

		1	2
		Year to Date	Prior Year Ended December 31
1.	Book value/recorded investment excluding accrued interest, December 31 of prior year	4, 170, 281	4,680,443
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		
	2.2 Additional investment made after acquisition		312
3.	Capitalized deferred interest and other		
4.	Accrual of discount	769	1,054
5.	Unrealized valuation increase (decrease)		
6.			
7.	Total gain (loss) on disposals	239,938	504,026
8.	Deduct amortization of premium and mortgage interest points and commitment fees	3 088	7 502
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)	3,928,024	4, 170, 281
12.	Total valuation allowance		
13.	Subtotal (Line 11 plus Line 12)	3,928,024	4, 170, 281
14.	Deduct total nonadmitted amounts		
15.	Statement value at end of current period (Line 13 minus Line 14)	3,928,024	4,170,281

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	144,280,400	145,576,989
2.	Cost of bonds and stocks acquired	33,494,481	36,258,812
3.	Accrual of discount		976,759
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	198,878	382,746
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		1,975
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)	169,256,115	144,280,400

SCHEDULE D - PART 1B

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

	During the Current Quarter for	2	3	4	5	6	7	8
	Book/Adjusted	۷	3	+	Book/Adjusted	Book/Adjusted	Book/Adjusted	Book/Adjusted
	Carrying Value	Acquisitions	Dispositions	Non-Trading Activity	Carrying Value	Carrying Value	Carrying Value	Carrying Value
	Beginning	During	During	During	End of	End of	End of	December 31
NAIC Designation	of Current Quarter	Current Quarter	Current Quarter	Current Quarter	First Quarter	Second Quarter	Third Quarter	Prior Year
BONDS								
1. NAIC 1 (a)	80,791,099	6,375,574	3,446,747	1,919,835	80,791,099	85,639,761		72,343,161
2. NAIC 2 (a)	194, 125, 979	414,140,706	415,259,003	(2,238,567)	194, 125, 979	190,769,115		181,881,749
3. NAIC 3 (a)	1,328,956		159,604	1,707,164	1,328,956	2,876,516		896,983
4. NAIC 4 (a)	1,185,379		27,580	(991,224)	1,185,379	166,575		1,000,000
5. NAIC 5 (a)			15, 178	(871)	786,991	770,942		796,062
6. NAIC 6 (a)								
7. Total Bonds	278,218,404	420,516,280	418,908,112	396,337	278,218,404	280,222,909		256,917,955
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	278,218,404	420,516,280	418,908,112	396,337	278,218,404	280,222,909		256,917,955

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 \$110,966,794 ; NAIC 3 \$
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NAIC 4 \$; NAIC 5 \$......; NAIC 6 \$......

SCHEDULE DA - PART 1

Short-Term Investments

	1	2	3	4	5 Paid for
	Book/Adjusted Carrying Value	Par Value	Actual Cost	Interest Collected Year-to-Date	Accrued Interest Year-to-Date
9199999 Totals	17,481,660	XXX	17,469,111		

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	16,484,333	17,489,374
2.	Cost of short-term investments acquired	20,465,547	47,432,906
3.	Accrual of discount	31,745	62,053
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals	10	
6.	Deduct consideration received on disposals	19,499,975	48,500,000
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)	17,481,660	16,484,333
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	17,481,660	16,484,333

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	96, 153, 220	73,306,345
2.	Cost of cash equivalents acquired	790,241,475	1,607,984,285
3.	Accrual of discount	253,303	275,865
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals		54
6.	Deduct consideration received on disposals	793, 162, 864	1,585,413,329
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)	93,485,134	96,153,220
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	93,485,134	96, 153, 220