	A9	2512			
	-		Current Statement Date		4 December 31
		1	2	3 Net Admitted Assets	Prior Year Net
		Assets	Nonadmitted Assets	(Cols. 1 - 2)	Admitted Assets
1.	Bonds	3,880,069,954		3,880,069,954	4,068,296,877
2.	Stocks:				
<u> </u>	2.1 Preferred stocks	27 716 787			
_		42 , 224 , 702			
3.	Mortgage loans on real estate:				
	3.1 First liens				
	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				
	\$				
	4.3 Properties held for sale (less \$				
	encumbrances)				
5.	Cash (\$26,200,816), cash equivalents				
	(\$245,070,058) and short-term				
	investments (\$				
6.	Contract loans (including \$premium notes)			152,229,987	149,329,290
7.	Derivatives				
8.					
-	Receivables for securities				
9.					
10.	Securities lending reinvested collateral assets				
11.	Aggregate write-ins for invested assets				
12.	Subtotals, cash and invested assets (Lines 1 to 11)	6,946,364,124		6,946,022,343	6,594,224,759
13.	Title plants less \$ charged off (for Title insurers				
	only)				
14.	Investment income due and accrued				
15.	Premiums and considerations:				
	15.1 Uncollected premiums and agents' balances in the course of collection	49,690	9,191		527.728
	15.2 Deferred premiums, agents' balances and installments booked but		,	,	,
	deferred and not yet due (including \$				
		(45,005,010)		(45,005,010)	(00 707 510)
	earned but unbilled premiums)			(45,305,210)	(30,787,510)
	15.3 Accrued retrospective premiums (\$				
	contracts subject to redetermination (\$)				
16.	Reinsurance:				
	16.1 Amounts recoverable from reinsurers		3, 135, 027	24,924,486	
	16.2 Funds held by or deposited with reinsured companies				
	16.3 Other amounts receivable under reinsurance contracts	8, 103, 166		8, 103, 166	
17.	Amounts receivable relating to uninsured plans				
	Current federal and foreign income tax recoverable and interest thereon				
	Net deferred tax asset				
	Guaranty funds receivable or on deposit				
19.					
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				
24.	Health care (\$				
25.	Aggregate write-ins for other than invested assets	(69,860)	(189,396)		(209,963)
26.	Total assets excluding Separate Accounts, Segregated Accounts and				
	Protected Cell Accounts (Lines 12 to 25)	7, 104, 485, 107		7,060,872,470	6,715,698,896
27.	From Separate Accounts, Segregated Accounts and Protected Cell	1 700 001 011		1 700 001 011	
	Accounts			1,736,861,911	
28.	Total (Lines 26 and 27)	8,841,347,018	43,612,637	8,797,734,381	8,312,670,613
	DETAILS OF WRITE-INS				
1101.					
1102.					
1103.					
1198.	Summary of remaining write-ins for Line 11 from overflow page				
1199.	Totals (Lines 1101 through 1103 plus 1198)(Line 11 above)				
		110 500		110 500	(000,000)
2501.	Miscellaneous other assets			119,536	(209,963)
2502.	Cash advances to agents		(189,396)		
2503.					
2598.	Summary of remaining write-ins for Line 25 from overflow page				
2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	(69,860)	(189,396)	119,536	(209,963)

ASSETS

LIABILITIES, SURPLUS AND OTHER FUNDS

		1 Current Statement Date	2 December 31 Prior Year
	Aggregate reserve for life contracts \$		3,976,890,479
2. 3.	Aggregate reserve for accident and health contracts (including \$		
4.	Contract claims: 4.1 Life		
5.	4.2 Accident and health Policyholders' dividends/refunds to members \$		
6.	and unpaid Provision for policyholders' dividends, refunds to members and coupons payable in following calendar year - estimated		
	amounts: 6.1 Policyholders' dividends and refunds to members apportioned for payment (including \$ Modco)		
	6.2 Policyholders' dividends and refunds to members not yet apportioned (including \$		
7.	Amount provisionally held for deferred dividend policies not included in Line 6		
8. 9.	Premiums and annuity considerations for life and accident and health contracts received in advance less \$ discount; including \$ Contract liabilities not included elsewhere:	5,592	
	9.1 Surrender values on canceled contracts 9.2 Provision for experience rating refunds, including the liability of \$		
	Service Act		
	9.4 Interest Maintenance Reserve		
	Commissions to agents due or accrued-life and annuity contracts \$, accident and health \$		
11. 12.	Commissions and expense allowances payable on reinsurance assumed	2,099	
13.	Transfers to Separate Accounts due or accrued (net) (including \$(4, 199, 316) accrued for expense allowances recognized in reserves, net of reinsured allowances.		
14.	Taxes, licenses and fees due or accrued, excluding federal income taxes		1,058,146
15.2	Current federal and foreign income taxes, including \$ on realized capital gains (losses)		
16. 17.	Unearned investment income Amounts withheld or retained by reporting entity as agent or trustee		
18. 19.	Amounts held for agents' account, including \$		
20.	Net adjustment in assets and liabilities due to foreign exchange rates		
21. 22.	Liability for benefits for employees and agents if not included above Borrowed money \$		
23.	Dividends to stockholders declared and unpaid		
24.	Miscellaneous liabilities: 24.01 Asset valuation reserve 24.02 Reinsurance in unauthorized and certified (\$		100 , 849 , 117
	24.03 Funds held under reinsurance treaties with unauthorized and certified (\$) reinsurers		
	24.04 Payable to parent, subsidiaries and affiliates24.05 Drafts outstanding		
	24.06 Liability for amounts held under uninsured plans		
	24.08 Derivatives		
	24.09 Payable for securities		
	24.11 Capital notes \$ and interest thereon \$		
25. 26.	Aggregate write-ins for liabilities	292,222,888 5,343,566,923	408,787,455
20. 27.			1,596,971,716
28.	Total liabilities (Lines 26 and 27)	7,080,428,834	6,675,353,074
29.			2,500,000
30. 31.	Preferred capital stock		
32.	Surplus notes		
33. 34.	Gross paid in and contributed surplus Aggregate write-ins for special surplus funds		
35.	Unassigned funds (surplus)		1, 184, 541, 331
36.	Less treasury stock, at cost:		
	36.1 shares common (value included in Line 29 \$		
37.	Surplus (Total Lines 31+32+33+34+35-36) (including \$ in Separate Accounts Statement)	1,714,805,547	1,634,817,539
38.	Totals of Lines 29, 30 and 37	1,717,305,547	1,637,317,539
39.	Totals of Lines 28 and 38 (Page 2, Line 28, Col. 3) DETAILS OF WRITE-INS	8,797,734,381	8,312,670,613
2501.	Derivative collateral		
2502.	Derivative accrued interest		
2503. 2598.	Funds awaiting escheat and other miscellaneous liabilities Summary of remaining write-ins for Line 25 from overflow page		3,765,378 234,404,238
2596. 2599.	Totals (Lines 2501 through 2503 plus 2598)(Line 25 above)	292,222,888	408,787,455
3101.			
3102.			
3103. 3198.	Summary of remaining write-ins for Line 31 from overflow page		
3199.	Totals (Lines 3101 through 3103 plus 3198)(Line 31 above)		
3401. 3402.			
3402. 3403.			
3498.	Summary of remaining write-ins for Line 34 from overflow page		
3499.	Totals (Lines 3401 through 3403 plus 3498)(Line 34 above)		

SUMMARY OF OPERATIONS

		1 Current Year	2 Prior Voor	3 Prior Voar Endod
		Current Year To Date	Prior Year To Date	Prior Year Ended December 31
1.	Premiums and annuity considerations for life and accident and health contracts			
2.	Considerations for supplementary contracts with life contingencies		1, 193, 100	1,391,827
3.	Net investment income			
4.	Amortization of Interest Maintenance Reserve (IMR)		6, 144, 160	6,603,760
5.	Separate Accounts net gain from operations excluding unrealized gains or losses	67 004 770		
6. 7.	Commissions and expense allowances on reinsurance ceded			
7. 8.	Reserve adjustments on reinsurance ceded Miscellaneous Income:			
0.	8.1 Income from fees associated with investment management, administration and contract			
	guarantees from Separate Accounts			
	8.2 Charges and fees for deposit-type contracts			
	8.3 Aggregate write-ins for miscellaneous income	1,514,836	1,754,533	2,296,928
9.	Totals (Lines 1 to 8.3)	539,615,812	558,237,981	758,017,033
10.		, ,		
11.	Matured endowments (excluding guaranteed annual pure endowments)			
12.	Annuity benefits			
13. 14.	Disability benefits and benefits under accident and health contracts			
14.	Coupons, guaranteed annual pure endowments and similar benefits			
16.	Group conversions			
17.	Interest and adjustments on contract or deposit-type contract funds		3,721,527	
18.	Payments on supplementary contracts with life contingencies	926.570		1,301,510
19.	Increase in aggregate reserves for life and accident and health contracts		(29,689,790)	(32,446,171)
20.	Totals (Lines 10 to 19)		461,336,123	
21.	Commissions on premiums, annuity considerations, and deposit-type contract funds (direct			, , , ,
	business only)			60,290,026
22.	Commissions and expense allowances on reinsurance assumed			
23.	General insurance expenses and fraternal expenses			
24.	Insurance taxes, licenses and fees, excluding federal income taxes		7,806,812	
25.	Increase in loading on deferred and uncollected premiums	(576,412)	(939,168)	(1,145,809)
26.	Net transfers to or (from) Separate Accounts net of reinsurance		(106,988,618)	(134,557,960)
27.	Aggregate write-ins for deductions		(4,949,947)	(6,522,072)
28.	Totals (Lines 20 to 27)	471,397,313	471,834,725	664,886,260
29.	Net gain from operations before dividends to policyholders and federal income taxes (Line 9 minus Line 28)	68 218 /00		
30.	Line 28) Dividends to policyholders and refunds to members			
30.	Net gain from operations after dividends to policyholders, refunds to members and before federal			
51.	income taxes (Line 29 minus Line 30)			
32.	Federal and foreign income taxes incurred (excluding tax on capital gains)	10,930,285	14,106,618	6,752,986
33.	Net gain from operations after dividends to policyholders, refunds to members and federal income	, ,	, ,	, - ,-
00.	taxes and before realized capital gains or (losses) (Line 31 minus Line 32)			
34.	Net realized capital gains (losses) (excluding gains (losses) transferred to the IMR) less capital			
	gains tax of \$2,648,938 (excluding taxes of \$			
	transferred to the IMR)	(5,423,720)	(3,797,286)	675,716
35.	Net income (Line 33 plus Line 34)	51,864,494	68,499,352	87,053,503
	CAPITAL AND SURPLUS ACCOUNT			
36.	Capital and surplus, December 31, prior year	1,637,317,539	1,573,159,890	1,573,159,890
37.	Net income (Line 35)	, , .		
38.				
39.	Change in net unrealized foreign exchange capital gain (loss)	(15,812,143)	(15,645,911)	(24,330,875)
	Change in net deferred income tax			
	Change in nonadmitted assets			
	Change in liability for reinsurance in unauthorized and certified companies		(103,820)	1,005,500
43.	Change in reserve on account of change in valuation basis, (increase) or decrease	(10, 404, 500)	(8,700,000)	(0,700,000)
44.	Change in asset valuation reserve			
45. 46.	Change in treasury stock Surplus (contributed to) withdrawn from Separate Accounts during period			
40.	Other changes in surplus in Separate Accounts Statement			
48.	Change in surplus notes			
49.	Cumulative effect of changes in accounting principles			
-	Capital changes:			
	50.1 Paid in			
	50.2 Transferred from surplus (Stock Dividend)			
	50.3 Transferred to surplus			
51.	Surplus adjustment:			
	51.1 Paid in			
	51.2 Transferred to capital (Stock Dividend)			
	51.3 Transferred from capital			
	51.4 Change in surplus as a result of reinsurance			
	Dividends to stockholders		/=	·
53.	Aggregate write-ins for gains and losses in surplus		(5,650,723)	(7,534,298)
	Net change in capital and surplus for the year (Lines 37 through 53)	79,988,008	(26,667,262)	64,157,649
55.	Capital and surplus, as of statement date (Lines 36 + 54)	1,717,305,547	1,546,492,628	1,637,317,539
00.05	DETAILS OF WRITE-INS	4 500 000	1 700 000	0 075 070
	Revenue sharing		I, /28,833	2,275,276
	Miscellaneous			
	Summary of remaining write-ins for Line 8.3 from overflow page			
	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)	1,514,836	1,754,533	2,296,928
		, ,		, ,
	Miscellaneous charges to operations			
	Summary of remaining write-ins for Line 27 from overflow page			
	Totals (Lines 2701 through 2703 plus 2798)(Line 27 above)	(4,150,608)	(4,949,947)	
	Reinsurance ceded adjustment			
5302.				
	Summary of remaining write-ins for Line 53 from overflow page			
	Totals (Lines 5301 through 5303 plus 5398)(Line 53 above)	(5,079,178)	(5,650,723)	
		/	.,.,.,	

CASH FLOW

	CASITIEOT			
		1 Current Year To Date	2 Prior Year To Date	3 Prior Year Ended December 31
	Cash from Operations			
1.	Premiums collected net of reinsurance			
2.	Net investment income			
3.	Miscellaneous income	99,213,285	91,263,829	130,120,5
4.	Total (Lines 1 to 3)	563,767,325	564,529,196	763,914,7
5.	Benefit and loss related payments			
6.	Net transfers to Separate Accounts, Segregated Accounts and Protected Cell Accounts	(106,232,134)	(106,846,881)	(135,915,9
7.	Commissions, expenses paid and aggregate write-ins for deductions	156,503,098	125,287,231	
8.	Dividends paid to policyholders			
9.	Federal and foreign income taxes paid (recovered) net of \$			
	gains (losses)	7,504,047	28,841,385	31,434,9
10.	Total (Lines 5 through 9)	544,726,879	588,096,571	720,065,0
				, ,
11.	Net cash from operations (Line 4 minus Line 10)	19,040,446	(23,567,375)	43,849,6
	Cash from Investments			
12.	Proceeds from investments sold, matured or repaid:			
	12.1 Bonds			
	12.2 Stocks	(3,865,141)	7,750,734	
	12.3 Mortgage loans			
	12.4 Real estate			
	12.5 Other invested assets			
	12.6 Net gains or (losses) on cash, cash equivalents and short-term investments	(3,219,990)		
	12.7 Miscellaneous proceeds	(20,570,537)	(65,949,193)	(5,535,
	12.8 Total investment proceeds (Lines 12.1 to 12.7)	775,142,411		
3.	Cost of investments acquired (long-term only):			
	13.2 Stocks			
	13.3 Mortgage loans			
	13.4 Real estate			
	13.5 Other invested assets			
	13.6 Miscellaneous applications	18,645,244	(27,202,609)	(11,531,
	13.7 Total investments acquired (Lines 13.1 to 13.6)	676,996,830	720,260,618	843,807,
4.	Net increase (or decrease) in contract loans and premium notes	2,883,682	(959,708)	1,353,
5.	Net cash from investments (Line 12.8 minus Line 13.7 and Line 14)	95,261,899	(142,109,664)	80,688,
	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		4,447,575 .	
	16.5 Dividends to stockholders			
	16.6 Other cash provided (applied)	(161,473,485)	(107,404,527)	(41,122,
7.	Net cash from financing and miscellaneous sources (Line 16.1 through Line 16.4 minus Line 16.5 plus Line 16.6)	(147,656,838)	(102,956,952)	(37,861,
	RECONCILIATION OF CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS			
8.	Net change in cash, cash equivalents and short-term investments (Line 11, plus Lines 15 and 17)	(33,354,493)	(268,633,991)	
19.	Cash, cash equivalents and short-term investments:			
	19.1 Beginning of year			
	19.2 End of period (Line 18 plus Line 19.1)	357,650,222	35,694,291	391,004,7
	upplemental disclosures of cash flow information for non-cash transactions: 01. Bond conversions and refinancing		10 000 050	04 500
	01. Bond conversions and refinancing			24,538, 10,083,
0.00	03. Net investment income payment in-kind bonds	639,267	610.857	749,

20.0001. Bond conversions and refinancing	 		
20.0002. Bank loan rollovers	 		
20.0003. Net investment income payment in-kind bonds	 		
20.0004. Stock conversions	1,307,260	1,307,260	
20.0005. Dividend reinvestment	 		
20.0006. Return of capital	 		
		1	

EXHIBIT 1

DIRECT PREMIUMS AND DEPOSIT-TYPE CONTRACTS

		JOINTHACT3		
		1 Current Veer	2 Prior Year	3 Drian Vaan Endad
		Current Year To Date	To Date	Prior Year Ended December 31
		TO Bale	To Date	December of
1.	Industrial life			
1.				
		100 000 500	150 607 551	006 410 500
2.	Ordinary life insurance			
		1 005 500 000	040 147 700	1 001 040 050
3.	Ordinary individual annuities			1, 381, 046, 253
4.	Credit life (group and individual)			
5.	Group life insurance			
6.	Group annuities			
7.	A & H - group			
8.	A & H - credit (group and individual)			
9.	A & H - other			
10.	Aggregate of all other lines of business			
11.	Subtotal (Lines 1 through 10)	1,203,801,770	1,093,833,047	1,588,101,608
12.	Fraternal (Fraternal Benefit Societies Only)			
13.	Subtotal (Lines 11 through 12)	1,203,801,770	1,093,833,047	1,588,101,608
14.	Deposit-type contracts			
15.	Total (Lines 13 and 14)	1,203,801,770	1,093,833,047	1,588,101,608
	DETAILS OF WRITE-INS			
1001.				
1002.				
		[
1003.				
1000.				
1098.	Summary of remaining write-ins for Line 10 from overflow page			
1030.	Cummary or remaining write-ins for Line to nom overnow page			
1099.	Totals (Lines 1001 through 1003 plus 1098)(Line 10 above)			
1039.	Totais Lines Toot through toos plus toso/Line TO above/			

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

Note 1 – Summary of Significant Accounting Policies and Going Concern

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

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

			F/S	F/S				
		SSAP #	Page	Line #		2019		2018
NET INCO	DME				-		-	
	State basis (Page 4, Line 35, Columns 1 & 3)	XXX	XXX	XXX	\$	51,864,494	\$	87,053,503
	State prescribed practices that increase/(decrease) NAIC SAP:	; N/A	N/A	N/A		-		-
(3) ද	State permitted practices that increase/(decrease) NAIC							
S	SAP:	N/A	N/A	N/A	-	-	_	-
(4) 1	NAIC SAP (1-2-3=4)	XXX	XXX	XXX	\$	51,864,494	\$_	87,053,503
SURPLUS	S							
	State basis (Page 3, Line 38, Columns 1 & 2)	XXX	XXX	XXX	\$	1,717,305,547	\$	1,637,317,539
	State prescribed practices that increase/(decrease) NAIC SAP:	; N/A	N/A	N/A		-		-
	State permitted practices that increase/(decrease) NAIC SAP:	N/A	N/A	N/A		_	_	<u> </u>
(8)	NAIC SAP (5-6-7=8)	XXX	XXX	XXX	\$	1,717,305,547	\$	1,637,317,539
					-		_	

- b. Use of estimates in the preparation of the financial statements No change
- c. Accounting policy:

a.

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

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

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

(7-14) No change

d. Going concern:

There is not substantial doubt regarding the Company's ability to continue as a going concern.

Note 2 – Accounting Changes and Corrections of Errors

a. For the nine months ended September 30, 2019, the Company did not record any corrections of prior years' errors.

For the nine months ended September 30, 2018, corrections of prior years' errors were recorded in capital and surplus, net of tax:

	Increase (Decrease) to:					
	P	rior		Current		Asset
	Ye	ars'		Year		or Liability
	Net li	ncome		Surplus		Balances
				(In Millions)		
Partnership and limited liability companies		-		(1,959,401)		(1,959,401)
Deferred income taxes	\$	-	\$	(15,913,941)	\$	(15,913,941)
Total	\$	-	\$	(17,873,342)		

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

b. Adoption of new accounting standards:

In June 2016, the NAIC adopted modifications to Statements of Statutory Accounting Principles (SSAP) No. 51R, Life Contracts, to incorporate references to the Valuation Manual and to facilitate the implementation of principles-based reserving (PBR), which were effective on January 1, 2017. The adoption of PBR only applies to new life insurance policies issued after January 1, 2017, however the Company plans to adopt these revisions to SSAP No. 51R using the 3-year phased in approach by no later than January 1, 2020. The Company currently uses formulas and assumptions to determine reserves as prescribed by state laws and regulations. Under PBR, the Company will be required to hold the higher of (a) the reserve using prescribed factors and (b) the PBR reserve which considers a wide range of future economic conditions, computed using justified company experience factors, such as mortality, policyholder behavior and expenses. The modifications are not expected to have a material effect on the Company's total life reserves and surplus in the financial statements.

In October 2018, the NAIC issued modifications to SSAP No. 86, Derivatives, effective January 1, 2019. This guidance permits the use of the Overnight Index Swap (OIS) rate based on Secured Overnight Financing Rate as a U.S. benchmark interest rate for hedge accounting purposes under ASC Topic 815 in addition to the U.S. Treasury rate, the LIBOR swap rate, the OIS rate based on the Fed Funds Effective Rate, and the SIFMA Municipal Swap Rate. The Company has not elected to apply hedge accounting, therefore adoption of this guidance did not have an impact on the Company's financial statements.

In November 2018, the NAIC issued SSAP No. 30R, Unaffiliated Common Stock, effective January 1, 2019. These clarifications applies to unaffiliated common stock including Securities Exchange Commission registered investment companies, such as closed-end mutual funds and unit investments trusts. The modification also includes public stock warrants, while nonpublic stock warrants would be classified as derivative instruments. The modifications did not have a material effect on the Company's financial statements.

Note 3 - Business Combinations and Goodwill - No change

Note 4 - Discontinued Operations - No change

Note 5 – Investments

d.

- a. Mortgage loans, including mezzanine real estate loans No change
- b. Debt restructuring No change
- c. Reverse mortgages No change
 - Loan-backed securities:
 - (1) Prepayment assumptions for loan-backed and structured securities are based on various assumptions and inputs obtained from external industry sources along with internal analysis and actual experience.
 - (2) The following contains loan-backed and structured securities that recognized other-than-temporary impairments (OTTI) classified on the following bases for recognizing OTTI:

			(1)			(2)			(3)
			Amortized		D,	OTTI	rod		
			Cost Basis			ecogniz			
			Before	10	2a)	in Loss (2l	1		Fair Value
			OTTI		erest	•	n-interest		1-(2a+2b)
			UIII	inte	51651	NU	Finiterest		1 - (2a+20)
отт	I recognized in the first quarter								
a.	Intent to sell	\$	-	\$	-	\$	-	\$	-
b.	Inability or lack of intent to retain the investment			Ŧ					
	in the security for a period of time sufficient to								
	recover the amortized cost basis		1,165,596		_		9,831		1,155,765
c.	Total first quarter	\$	1,165,596	\$	_	\$	9,831	\$	1,155,765
	·	<u> </u>	, , ,	<u> </u>		<u> </u>		<u> </u>	, , ,
ΟΤΤ	I recognized in the second quarter								
d.	Intent to sell	\$	-	\$	-	\$	-	\$	-
e.	Inability or lack of intent to retain the investment								
	in the security for a period of time sufficient to								
	recover the amortized cost basis		1,163,829		-		182,972		980,857
f.	Total second quarter	\$	1,163,829	\$	-	\$	182,972	\$	980,857
ΟΤΤ	I recognized in the third quarter								
g.	Intent to sell	\$	-	\$	-	\$	-	\$	-
h.	Inability or lack of intent to retain the investment								
	in the security for a period of time sufficient to								
	recover the amortized cost basis		3,766,145		-		604,431		3,161,714
i.	Total third quarter	\$	3,766,145	\$	-	\$	604,431	\$	3,161,714
ΟΤΤ	I recognized in the fourth quarter								
j.	Intent to sell	\$	-	\$	-	\$	-	\$	-
k.	Inability or lack of intent to retain the investment								
	in the security for a period of time sufficient to								
	recover the amortized cost basis				-				-
I.	Total fourth quarter	\$		\$	-	\$		\$	
m.	Annual aggregate total			\$	_	\$	797,234		

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

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

CUSIP	Amortized Cost before OTTI	Projected Cash Flow	Recognized OTTI	Amortized Cost after OTTI	Fair Value at Time of OTTI	Date of Financial Instrument Where Reported
61750MAB1	\$ 586	\$ 548	\$ (38)	\$ 548	\$ 554	March 31, 2019
65106FAG7	12,643	11,714	(929)	11,714	343	March 31, 2019
761118FM5	390,110	385,210	(4,900)	385,210	388,296	March 31, 2019
57643QAE5	755,970	754,768	(1,201)	754,768	790,386	March 31, 2019
US74951PBV94	6,287	3,525	(2,763)	3,525	6,872	March 31, 2019
61750MAB1	587	544	(42)	544	483	June 30, 2019
65106FAG7	12,476	11,547	(929)	11,547	60	June 30, 2019
761118FM5	404,545	392,163	(12,382)	392,163	415,195	June 30, 2019
57643QAE5	739,790	572,935	(166,855)	572,935	772,080	June 30, 2019
US74951PBV94	6,431	3,668	(2,763)	3,668	5,873	June 30, 2019
05535DCF9	474,874	429,932	(44,942)	429,932	613,136	September 30, 2019
61750MAB1	586	543	(42)	543	466	September 30, 2019
65106FAG7	22,406	11,256	(11,149)	11,256	347	September 30, 2019
22541QQR6	4,899	(3,057)	(7,956)	(3,057)	-	September 30, 2019
76110H4M8	1,443	-	(1,443)	-	-	September 30, 2019
761118FM5	352,711	333,834	(18,876)	333,834	349,377	September 30, 2019
79548KXQ6	44,492	43,020	(1,472)	43,020	9,462	September 30, 2019
12669GWN7	257,591	237,604	(19,987)	237,604	232,552	September 30, 2019
36298XAA0	1,757,853	1,547,103	(210,750)	1,547,103	1,539,100	September 30, 2019
57643QAE5	842,975	559,584	(283,391)	559,584	725,058	September 30, 2019
US74951PBV94	6,316	1,893	(4,423)	1,893	3,130	September 30, 2019
Totals	\$ 6,095,569	\$ 5,298,335	\$ (797,234)	\$ 5,298,335	\$ 5,852,771	

(4) As of September 30, 2019, the gross unrealized losses and fair values for investments in structured and loan-backed securities for which an OTTI has not been recognized in earnings follow:

a. The aggregate amount of unrealized losses:

1. Less than 12 months	\$	(1,341,545)
2. 12 months or longer	\$	(3,867,332)
The aggregate related fair value of securities with unrealized l	osses:	
1. Less than 12 months	\$	212,625,803
2. 12 months or longer	\$	178,374,498

(5) No change

b.

- e. Dollar repurchase agreements and/or securities lending transactions: The Company did not have any dollar repurchase agreements and/or securities lending transactions.
- f. Repurchase agreements transactions accounted for as secured borrowing:
 - (1) The Company has entered into repurchase agreements whereby the Company sells securities and simultaneously agrees to repurchase the same or substantially the same securities. These repurchase agreements are accounted for as collateralized borrowings with the proceeds from the sale of the securities recorded as a liability and the underlying securities continue to be recorded as an investment by the Company. Earnings on these investments are recorded as investment income and the difference between the proceeds and the amount at which the securities will be subsequently reacquired is amortized as interest expense. Repurchase agreements are used as a tool for overall portfolio management to help ensure the Company maintains adequate assets in order to provide yield, spread and duration to support liabilities and other corporate needs.

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

The carrying value, which is at cost, reported in the Company's liabilities as repurchase agreements approximates the fair value.

(2) Type of Repo Trades Used

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

(3) Original (Flow) & Residual Maturity

					FIRST G) UA	RTER			SECOND	QU	ARTER	
			1		2		3	4	5	6		7	8
							AVERAGE					AVERAGE	
							DAILY	ENDING				DAILY	ENDING
			MINIMUM		MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	Open – No Maturity	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
b.	Overnight	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
с.	2 Days to 1 Week	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
d.	> 1 Week to 1 Month	\$	-	\$	-	\$	-	\$ -	\$ 18,270,000	\$ 18,270,000	\$	1,405,385	\$ -
e.	> 1 Month to 3 Months	\$	-	\$	-	\$	-	\$ -	\$ 69,212,500	\$ 173,425,000	\$	104,050,962	\$ 69,562,500
f.	> 3 Months to 1 Year	\$	232,599,715	\$	291,668,315	\$	237,266,613	\$ 232,756,100	\$ 40,432,000	\$ 232,756,100	\$	60,960,500	\$ 40,432,000
g.	> 1 Year	\$	-	\$	-	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -

NOTES TO FINANCIAL STATEMENTS

			THIRD C	QUA	RTER			FOURTH	QU/	ARTER	
		9	10		11	12	13	14		15	16
					AVERAGE					AVERAGE	
					DAILY	ENDING				DAILY	ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	Open – No Maturity	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
b.	Overnight	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
с.	2 Days to 1 Week	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
d.	> 1 Week to 1 Month	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ =
e.	> 1 Month to 3 Months	\$ -	\$ 69,562,500	\$	32,105,769	\$ -	\$ -	\$ -	\$	-	\$ -
f.	> 3 Months to 1 Year	\$ -	\$ 40,432,000	\$	18,660,923	\$ -	\$ -	\$ -	\$	-	\$ -
g.	> 1 Year	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -

(4) The company did not have any repurchase agreements where securities sold and/or acquired resulted in default as of September 30, 2019.

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

				FIRST	ລ ຸບ/	ARTER			SECOND	QU,	IARTER	
			1	2		3	4	5	6		7	8
						AVERAGE					AVERAGE	
			DAILY	ENDING				DAILY	ENDING			
			MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a.	BACV		XXX	XXX		XXX	\$ 232,756,100	XXX	XXX		XXX	\$ 109,994,500
b.	Nonadmitted - Subset of BACV		XXX	XXX		XXX	\$ -	XXX	XXX	1	XXX	\$ -
с.	Fair Value	\$	232,599,715	\$ 291,668,315	\$	237,266,613	\$ 232,756,100	\$ 109,644,500	\$ 232,493,600	\$	166,416,846	\$ 109,994,500

			THIRD C	UARTER			FOURTH	QUARTER	
		9	10	11	12	13	14	15	16
				AVERAGE				AVERAGE	
				ENDING			DAILY	ENDING	
		MINIMUM	MAXIMUM	BALANCE	BALANCE	MINIMUM	MAXIMUM	BALANCE	BALANCE
a.	BACV	XXX	XXX	XXX	\$ -	XXX	XXX	XXX	\$ -
b.	Nonadmitted - Subset of BACV	XXX	XXX	XXX	\$ -	XXX	XXX	XXX	\$ -
с.	Fair Value	\$ -	\$ 109,994,500	\$ 50,766,692	\$ -	\$ -	\$ -	\$ -	\$ -

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

ENDING BALANCE

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

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

(7) Collateral Received - Secured Borrowing

			FIRST C)UA	RTER			SECOND	ວບ/	ARTER		
		1	2		3	4	5	6		7		8
					AVERAGE					AVERAGE		
					DAILY	ENDING				DAILY		ENDING
		MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE		BALANCE
a.	Cash	\$ 1,488,000	\$ 1,887,000	\$	1,837,125	\$ 1,887,000	\$ 700,000	\$ 1,887,000	\$	937,400	\$	700,000
b.	Securities (FV)	\$ 174,010,752	\$ 234,298,502	\$	228,947,372	\$ 233,978,670	\$ 109,848,655	\$ 234,099,732	\$	166,821,292	\$	110,236,314
			THIRD C	QUA	RTER			FOURTH	QUA	ARTER		
		9	10		11	12	13	14		15		16
					AVERAGE					AVERAGE		
					DAILY	ENDING				DAILY		ENDING

BALANCE

MINIMUM

MAXIMUM

BALANCE

BALANCE

BALANCE

a.	Cash	\$ -	\$ -	\$ -	\$
b.	Securities (FV)	\$ -	\$ 110,574,022	\$ 46,002,153	\$

MINIMUM

MAXIMUM

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

ENDING BALANCE

Cash

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

(9) Allocation of Aggregate Collateral by Remaining Contractual Maturity

		FAIR VALUE
a.	Overnight and Continuous	\$ -
b.	30 Days or Less	\$ -
с.	31 to 90 Days	\$ -
d.	> 90 Days	\$ -

(10) The company did not have any repurchase agreements where cash collateral received was reinvested as of September 30, 2019.

(11) Liability to Return Collateral – Secured Borrowing (Total)

		FIRST C	QUA	ARTER			SECOND	<u>ລ</u> ມ/	ARTER	
	1	2		3	4	5	6		7	8
				AVERAGE					AVERAGE	
				DAILY	ENDING				DAILY	ENDING
	MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a. Cash (Collateral – All)	\$ 1,488,000	\$ 1,887,000	\$	1,837,125	\$ 1,887,000	\$ 700,000	\$ 1,887,000	\$	937,400	\$ 700,000
b. Securities Collateral (FV)	174,010,752	234,298,502		228,947,372	233,978,670	\$ 109,848,655	234,099,732		166,821,292	110,236,314
		THIRD (วบผ	ARTER			FOURTH	ວຸບ,	ARTER	
	9	10		11	12	13	14		15	16
				AVERAGE					AVERAGE	
				DAILY	ENDING				DAILY	ENDING
	MINIMUM	MAXIMUM		BALANCE	BALANCE	MINIMUM	MAXIMUM		BALANCE	BALANCE
a. Cash (Collateral – All)	\$ -	\$ -	\$	-	\$ -	\$ -	\$ -	\$	-	\$ -
b. Securities Collateral (FV)	\$ -	\$ 110,574,022	\$	46,002,153	\$ -	\$ -	\$ -	\$	-	\$ -

g. Reverse repurchase agreements transactions accounted for as secured borrowing: The Company did not have any reverse repurchase agreements transactions accounted for as secured borrowing.

h. Repurchase agreements transactions accounted for as a sale: The Company did not have any repurchase agreements transactions accounted for as a sale.

i. Reverse repurchase agreements transactions accounted for as a sale: The Company did not have any reverse repurchase agreements transactions accounted for as a sale.

- j. Real estate No change
- k. Low-Income Housing Tax Credit No change
- I. Restricted Assets No change
- m. Working capital finance investments: The Company did not invest in working capital finance investments.
- n. Offsetting and netting of assets and liabilities: The Company reports derivative and repurchase agreement assets and liabilities as gross in the financial statements without offsetting.
- o. Structured notes:

A structured note is a direct debt issuance by a corporation, municipality, or government entity, ranking pari-passu with the issuer's other debt issuance of equal seniority where either: (a) the coupon and/or principal payments are linked, in whole or in part, to prices or payment streams from index or indices, or assets deriving their value from other than the issuer's credit quality, or (b) the coupon and/or principal payments are leveraged by a formula that is different from either a fixed coupon, or a non-leveraged floating rate coupon linked to an interest rate index, including but not limited to the London Interbank Offered Rate (LIBOR) or the prime rate. As structured notes are issuer obligations without a trust, they are within the scope of SSAP No. 26, "Bonds, Excluding Loan-backed and Structured Securities". Structured notes are different than the asset backed structured securities, which are accounted for under SSAP No. 43R, "Revised - Loan-Backed and Structured Securities", as they lack either a trust or assets backing them. The disclosure below allows regulators to assess the volume of activity in structured notes and to determine whether additional accounting or reporting revisions, such as valuation and risk-based capital, are needed. To satisfy this request, the Company is required to separately identify structured notes, on a CUSIP basis and provide information by CUSIP for actual cost, fair value, book/adjusted carrying value, and whether the structured note is a mortgage-referenced security. The Company did not hold any structured notes as of September 30, 2019.

p. 5GI Securities:

Investment	Number of 5G	I Securities	Aggregate	BACV	Aggregate F	air Value
	Current Year	Prior Year	Current Year	Prior Year	Current Year	Prior Year
(1) Bonds - AC	45	72	\$52,203,361	\$78,560,516	\$52,002,739	\$77,588,228
(2) LB&SS - AC	-	-	-	-	-	-
(3) Preferred Stock - AC	5	4	2,354,790	2,345,872	3,531,932	3,085,079
(4) Preferred Stock - FV	-	-	-	-	-	-
(5) Total (1+2+3+4)	50	76	\$54,558,151	\$80,906,388	\$55,534,671	\$80,673,307

AC - Amortized Cost FV - Fair Value

q. Short Sales - The Company does not engage in short sale transactions.

r. Prepayment Penalty and Acceleration Fees:

	 Nine Months Endec	September 30, 2019	
	 General Account	Separate Account	
1. Number of CUSIPS	32		N/A
2. Aggregate Amount of Investment Income	\$ 5,112,398		N/A

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

Note 7 - Investment Income - No change

Note 8 - Derivative Instruments - No change

Note 9 - Income Taxes - No change

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

Note 11 - Debt

No change a.

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

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

Benefit Plans Defined Benefit Plan: a.

(1-3) No change

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

a.

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

Note 14 – Liabilities, Contingencies and Assessments Contingent commitments - No change

- Assessments No change b.
- Gain contingencies No change c.
- Claims related to extra contractual obligations No change d.
- Joint and several liabilities No change e.
- All other contingencies: f.

In the normal course of business, the Company is involved in disputes, litigation and governmental or regulatory inquiries, administrative proceedings, examinations and investigations, both pending and threatened. These matters, if resolved adversely against the Company or settled, may result in monetary damages, fines and penalties or require changes in the Company's business practices. The resolution or settlement of these matters is inherently difficult to predict. Based upon the Company's assessment of these pending matters, the Company does not believe that the amount of any judgment, settlement or other action arising from any pending matter is likely to have a material adverse effect on the statement of financial position. However, an adverse outcome in certain matters could have a material adverse effect on the results of operations for the period in which such matter is resolved, or an accrual is determined to be required, on the financial statement financial position, or on our reputation.

The Company evaluates the need for accruals of loss contingencies for each matter. When a liability for a matter is probable and can be estimated, the Company accrues an estimate of the loss and any related insurance recoveries, if any. An accrual is subject to subsequent adjustment as a result of additional information and other developments. The resolution of matters are inherently difficult to predict, especially in the early stages of matter. Even if a loss is probable, due to many complex factors, such as speed of discovery and the timing of court decisions or rulings, a loss or range of loss may not be reasonably estimated until the later stages of the matter. For matters where a loss is material and it is either probable or reasonably possible then it is disclosed. For matters where a loss may be reasonably possible, but not probable, or is probable but not reasonably estimated, no accrual is established, but the matter, if material, is disclosed.

Note 15 - Leases - No change

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

Note 17 - Sale, Transfer and Servicing of Financial Assets and Extinguishments of Liabilities Transfers of receivables reported as sales - No change

- Transfer and servicing of financial assets: b.
 - (1) No change
 - The Company did not have any servicing assets or liabilities in 2019 or 2018. (2)
 - (3)No change
 - (4) The Company did not have interests that continue to be held by a transferor in securitized financial assets in 2019 or 2018.
 - (5-7) No change
- c. Wash sales
 - In the course of the Company's investment management activities, securities may be sold and reacquired within 30 days to (1)enhance the Company's yield on its investment portfolio.
 - The Company did not sell any securities with the NAIC Designation 3 or below, or unrated, through the nine months ended (2)September 30, 2019 that were reacquired within 30 days of the sale date.

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

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

<u>Note 20 – Fair Value Measurements</u> a. Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The authoritative guidance around fair value establishes a measurement framework that includes a hierarchy used to classify the inputs used in measuring fair value. The hierarchy prioritizes the inputs to valuation techniques into three levels. Each level reflects a unique description of the inputs that are significant to the fair value measurements. The levels of the fair value hierarchy are as follows:

Level 1 - Observable inputs in the form of quoted prices for identical instruments in active markets.

Level 2 - Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be derived from observable market data for substantially the full term of the assets or liabilities.

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

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

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

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

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

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

		S	epteml	ber 30, 201	9		
						Net Asset	
	Level 1	Level 2	L	evel 3		(NAV)	Total
Financial assets:							
Bonds:							
Industrial and miscellaneous	\$ -	\$ 10,135,379	\$7	7,467,795	\$	-	\$ 17,603,174
Preferred stocks Common stock - subsidiary and	366,300	-		-		-	366,300
affiliates	16,798,747	-		-		-	16,798,747
Common stock - unaffiliated	298,341	-	4	1,024,557		-	4,322,898
Derivatives:							
Interest rate swaps	-	634,399,639		-		-	634,399,639
Options	-	31,780,225		-		-	31,780,225
Currency swaps	-	58,650,810		-		-	58,650,810
Forward contracts	-	3,303,714		-		-	3,303,714
Financial futures	81,721	-		-		-	81,72 [.]
Separate account assets	1,736,859,437	2,474		-		-	1,736,861,91
Total financial assets carried							
at fair value	\$ 1,754,404,546	\$ 738,272,241	\$ 11	,492,352	\$	-	\$ 2,504,169,139
Financial liabilities:							
Repurchase agreements							
Derivatives:							
Interest rate swaps	\$ -	\$ 700,937,314	\$	-	\$	-	\$ 700,937,31
Options	-	5,277,566		-		-	5,277,56
Currency swaps	-	2,616,637		-		-	2,616,63
Forward contracts	-	569,261		-		-	569,26
Credit default swaps	-	6,805		-		-	6,80
Financial futures	11,743,968	-		-		-	11,743,96
Total financial liabilities carried							
at fair value	\$ 11,743,968	\$ 709,407,583	\$	-	\$	-	\$ 721,151,55

For the period ended September 30, 2019, there were no significant transfers between Level 1 and Level 2 and the Company does not have any financial instruments that were carried at NAV as a practical expedient.

NOTES TO FINANCIAL STATEMENTS

			December 31, 20	18	
				Net Asset Value	
	Level 1	Level 2	Level 3	(NAV)	Total
Financial assets:					
Bonds:					
Special revenue	\$ -	\$ 755,723	\$ -	\$ -	\$ 755,723
Industrial and miscellaneous	-	326,177	4,289,616	-	4,615,793
Parent, subsidiaries and affiliates	-	2,110,729	6,384,097	-	8,494,826
Preferred stocks	362,670	-	31,996	-	394,666
Common stock - subsidiary and affiliates	10,868,152	-	-	-	10,868,152
Common stock - unaffiliated	116,099	-	2,499,354	-	2,615,453
Derivatives:					
Interest rate swaps	-	249,516,085	-	-	249,516,085
Options	-	13,957,901	-	-	13,957,901
Currency swaps	-	35,305,329	-	-	35,305,329
Forward contracts	-	3,471,843	-	-	3,471,843
Financial futures - short positions	-	94,647	-	-	94,647
Financial futures - long positions	-	32,025,337	-	-	32,025,337
Separate account assets	1,596,964,984	6,732	-	-	1,596,971,716
Total financial assets carried					
at fair value	\$ 1,608,311,905	\$ 337,570,503	\$ 13,205,063	\$ -	\$ 1,959,087,471
Financial liabilities:					
Derivatives:					
Interest rate swaps	\$ -	\$ 374,936,861	\$ -	\$ -	\$ 374,936,861
Options	-	407,364	-	-	407,364
Currency swaps	-	7,762,334	-	-	7,762,334
Forward contracts	-	570,442	-	-	570,442
Credit default swaps	-	12,710	-	-	12,710
Total financial liabilities carried					
at fair value	\$ -	\$ 383,689,711	\$ -	\$ -	\$ 383,689,711

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

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

	Balance as of 01/01/2019	Tran In	sfer	s ⁽¹⁾ Out	Gains (Losses) in Net Income	Gains (Losses) in Surplus	Purchases	Issuances	Sales	Settlements	 Balance as of 9/30/2019
Financial assets:											
Bonds:											
Industrial and miscellaneous	\$ 4,289,614	\$ 4,038,266	\$	-	\$ (224,535)	\$ (186,747)	\$ 9,596	\$ -	\$ 74,095	\$ (532,493)	\$ 7,467,796
Parent, subsidiaries and affiliates	6,384,098	-		(6,384,098)	-	-	-	-	-	-	-
Preferred stocks	31,996	-		(31,996)	-	-	-	-	-	-	-
Common stocks - unaffiliated	 2,499,354	-		(11,442)	120,749	1,353,162	228,629	-	-	 (165,896)	 4,024,556
Total financial assets	\$ 13.205.062	\$ 4.038.266	\$	(6.427.536)	\$ (103.786)	\$ 1.166.415	\$ 238.225	\$ -	\$ 74.095	\$ (698.389)	\$ 11.492.352

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

	_	Balance as of 01/01/2018	Trans	fers	n) Out	 Gains Losses) in let I ncome	(1	Gains Losses) in Surplus	Pı	urchases	Is	suances	Sales		Se	ettlements	Balance as of 2/31/2018
Financial assets:																	
Bonds:																	
Industrial and miscellaneous	\$	2,213,347	\$ 3,546,000	\$	-	\$ (295,001)	\$	(500,164)	\$	6,289	\$	152,258	\$	-	\$	(833,115)	\$ 4,289,614
Parent, subsidiaries and affiliates		6,740,295	-		-	-		(356,197)		-		-		-		-	6,384,098
Preferred stock		167,887	-		(167,887)	-		(28,743)		-		60,739		-		-	31,996
Common stock - unaffiliated		3,274,658	-		-	647,982		(404,676)		51,618		1,600,312		-		(2,670,540)	2,499,354
Currency Swaps		49,359	-		(49,359)	-				-		-		-		· -	
Total financial assets	\$	12,445,546	\$ 3,546,000	\$	(217,246)	\$ 352,981	\$	(1,289,780)	\$	57,907	\$	1,813,309	\$	_	\$	(3,503,655)	\$ 13,205,062

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

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

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

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

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

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

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

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

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

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

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

			Septen	nber 30, 2019			
-						Net	Not
						Asset	Practicable
	Aggregate	Admitted				Value	(Carrying
-	Fair Value	Assets	Level 1	Level 2	Level 3	(NAV)	Value)
Financial assets:							
Bonds:							
U.S. government and agencies	\$ 3,848,155	\$ 3,847,544	\$ -	\$ 3,848,155	\$ -	\$ -	\$
All other governments	1,465,947	1,336,216	-	1,465,947	-	-	-
States, territories and possessions	32,752,215	29,001,477	-	32,752,215	-	-	-
Political subdivisions	20,906,217	18,248,177	-	20,906,217	-	-	-
Special revenue	133,396,493	115,127,148	-	133,396,493	-	-	-
Industrial and miscellaneous	3,817,718,977	3,533,377,535	-	1,876,726,224	1,940,992,753	-	-
Parent, subsidiaries and affiliates	185,171,985	179,131,857	-	2,196,881	182,975,104	-	-
Preferred stocks	29,922,122	27,716,787	21,198,680	-	8,723,442	-	-
Common stock - subsidiary and affiliates ⁽¹⁾	16,798,747	16,798,747	16,798,747	-	-	-	-
Common stock - unaffiliated	4,322,898	4,322,898	298,341	-	4,024,557	-	-
Mortgage loans - commercial	876,882,689	831,512,823	-	-	876,882,689	-	-
Mortgage loans - residential	105,684,484	106,522,875	-	-	105,684,484	-	-
Cash, cash equivalents and							
short-term investments	357,650,221	357,650,221	26,200,816	331,449,405	-	-	-
Derivatives:							
Interest rate swaps	634,399,639	634,399,639	-	634,399,639	-	-	-
Options	31,780,225	31,780,225	-	31,780,225	-	-	-
Currency swaps	58,650,810	58,650,810	-	58,650,810	-	-	-
Forward contracts	3,303,714	3,303,714	-	3,303,714	-	-	-
Financial futures	81,721	81,721	-	81,721	-	-	-
Separate account assets	1,736,861,911	1,736,861,911	1,736,859,437	2,474	-	-	-
Financial liabilities:							
Individual annuity contracts	3,293,421,331	2,981,083,665	-	-	3,293,421,331	-	-
Supplementary contracts	80,940,878	80,139,483	-	-	80,940,878	-	-
Derivatives:							
Interest rate swaps	700,937,314	700,937,314	_	700,937,314	_	-	-
Options	5,277,565	5,277,565	-	5,277,565	_	-	-
Currency swaps	2,616,637	2,616,637	-	2,616,637	-	_	-
Forward contracts	569,260	569,260	-	569,260	-	_	-
Credit default swaps	6,805	6,805	-	6,805	-	-	-
Financial futures	11,743,968	11,743,968		11,743,968			

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

			Decem	ber 31, 2018			
	Aggregate Fair Value	Admitted Assets	Level 1	Level 2	Level 3	Net Asset Value (NAV)	Not Practicable (Carrying Value)
Financial assets:							
Bonds:							
U.S. government and agencies	\$ 274,697,980	\$ 273,487,919	\$ -	\$ 274,697,980	\$ -	\$ -	\$ -
All other governments	1,371,069	1,361,038	-	1,371,069	-	-	-
States, territories and possessions	31,599,211	29,374,590	-	31,599,211	-	-	-
Political subdivisions	19,316,604	18,242,094	-	19,316,604	-	-	-
Special revenue	127,598,639	120,045,284	-	127,598,639	-	-	-
Industrial and miscellaneous	3,399,664,608	3,412,083,826	-	1,627,276,647	1,772,387,962	-	-
Parent, subsidiaries and affiliates	250,536,677	245,918,985	-	24,628,918	225,907,759	-	-
Preferred stocks	25,135,684	26,560,290	17,237,100	-	7,898,583	-	-
Common stock - subsidiary and affiliates ⁽¹⁾	10,868,152	10,868,152	10,868,152	-	-	-	-
Common stock - unaffiliated	2,615,453	2,615,453	116,099	-	2,499,354	-	-
Mortgage loans - commercial	828,977,237	812,186,687	-	-	828,977,237	-	-
Mortgage loans - residential	102,878,134	109,085,667	-	-	102,878,134	-	-
Cash, cash equivalents and							
short-term investments	391,004,715	391,004,715	69,979,806	321,024,909	-	-	-
Derivatives:							
Interest rate swaps	249,516,083	249,516,083	-	249,516,083	-	-	-
Options	13,957,901	13,957,901	-	13,957,901	-	-	-
Currency swaps	35,305,329	35,305,329	-	35,255,970	49,359	-	-
Forward contracts	3,471,843	3,471,843	-	3,471,843	-	-	-
Financial futures	32,119,985	32,119,985	-	32,119,985	-	-	-
Separate account assets	1,596,971,716	1,596,971,716	1,596,964,984	6,732	-	-	-
Financial liabilities:							
Repurchase agreements	232,277,500	232,277,500	-	232,277,500	-	-	-
Individual annuity contracts	3,312,409,604	2,995,402,794	-	-	3,312,409,604	-	-
Supplementary contracts	91,166,848	90,264,206	-	-	91,166,848	-	-
Derivatives:							
Interest rate swaps	374,936,862	374,936,862	-	374,936,862	-	-	-
Options	407,363	407,363	-	407,363	-	-	-
Currency swaps	7,762,334	7,762,334	-	7,762,334	-	-	-
Forward contracts	570,442	570,442	-	570,442	-	-	-
Credit default swaps	12,710	12,710	-	12,710	-	-	-

⁽¹⁾Common stock - subsidiary and affiliates does not include MML Bay State, which had a statutory carrying value of \$295,306,366.

d. As of September 30, 2019 and December 31, 2018, the Company had no investments where it was not practicable to estimate fair value.

Note 21 – Other Items

a. Unusual or infrequent items - No change

- b. Troubled debt restructuring No change
- c. Other disclosures and unusual items:

Business risks

The Company operates in a business environment subject to various risks and uncertainties. The principal risks include insurance and underwriting risks, investment and interest rate risks, currency exchange risk and credit risk. The combined impact of these risks could have a material, adverse effect on the Company's financial statements or result in operating losses in future periods. The Company employs the use of reinsurance, portfolio diversification, asset/liability management processes and other risk management techniques to mitigate the impact of these risks. This condensed risks and uncertainties disclosure should be read in conjunction with the disclosure in the Company's 2018 Annual Statement.

Insurance and underwriting risks

The Company prices its products based on estimated benefit payments reflecting assumptions with respect to mortality, morbidity, longevity, persistency, interest rates and other factors. If actual policy experience emerges that is significantly and adversely different from assumptions used in product pricing, the effect could be material to the profitability of the Company. The Company reinsures certain life insurance policies to mitigate the impact of its underwriting risk.

Investment and interest rate risks

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

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

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

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

Currency exchange risk

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

Credit and other market risks

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

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

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

Political Uncertainties

Political events, domestically or internationally, may directly or indirectly trigger or exacerbate the risk factors described above. Whether those underlying risk factors are driven by politics or not, the Company's dynamic approach to managing risks enables management to utilize the mitigating actions described above to attempt to reduce the potential impact of each underlying risk factor on the Company.

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

		Sept		 e Months Ended tember 30, 2019		
	Actual		Carrying		Fair	
Alt-A:	Cost		Value		Value	ΟΤΤΙ
a. Residential mortgage-backed securities \$	13,359,710	\$	15,627,755	\$	16,960,148	\$ 20,660
b. Commercial mortgage-backed securities	-		-		-	-
c. Collateralized debt obligations	-		-		-	-
d. Structured securities	-		-		-	-
 e. Equity investments in SCAs * 	583,397		679,973		786,438	-
f. Other assets	-		-		-	-
g. Total <u>\$</u>	13,943,107	\$	16,307,728	\$	17,746,586	\$ 20,660

* The Company's SCA, MML Bay State, has investments in Alt-A and subprime mortgages. These investments comprise less than 1% of the Company's invested assets.

		Dece	ember 31, 2018	3		′ear Ended mber 31, 2018
	 Actual		Carrying		Fair	
Alt-A:	 Cost		Value		Value	OTTI
a. Residential mortgage-backed securities	\$ 15,342,362	\$	17,584,357	\$	19,871,069	\$ 76,979
b. Commercial mortgage-backed securities	-		-		-	-
c. Collateralized debt obligations	-		-		-	-
d. Structured securities	-		-		-	-
 e. Equity investments in SCAs * 	752,906		846,365		990,672	-
f. Other assets	 -		-		-	-
g. Total	\$ 16,095,268	\$	18,430,722	\$	20,861,741	\$ 76,979

* The Company's SCA, MML Bay State, has investments in Alt-A and subprime mortgages. These investments comprise less than 1% of the Company's invested assets.

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

Note 22 - Events Subsequent

Management of the Company has evaluated subsequent events through November 12, 2019, the date the financial statements were available to be issued to state regulators and subsequently on the Company's website. No events have occurred subsequent to the date of the Statements of Financial Position and before the date of evaluation that would require disclosure.

Note 23 - Reinsurance - No change

Note 24 – Retrospectively Rated Contracts and Contracts Subject to Redetermination

- a d. No change
- e. The Company does not write any accident and health insurance premium that is subject to the Affordable Care Act risk-sharing provisions.

Note 25 – Change in Incurred Losses and Loss Adjustment Expenses

There was no increase to reserves in 2019 for incurred losses and loss adjustment expenses attributable to insured events of prior years, which considered corrections of prior year errors.

Note 26 - Intercompany Pooling Arrangements - No change

- Note 27 Structured Settlements No change
- Note 28 Health Care Receivables No change
- Note 29 Participating Policies No change
- Note 30 Premium Deficiency Reserves No change

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

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

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

Note 34 - Separate Accounts - No change

Note 35 - Loss/Claim Adjustment Expenses - No change

GENERAL INTERROGATORIES

PART 1 - COMMON INTERROGATORIES

GENERAL

1.1	Did the reporting entity experience any material transactions requiring the filing of Disc Domicile, as required by the Model Act?	losure of Material Trans	sactions with the State of		′es []	No [X]
1.2	If yes, has the report been filed with the domiciliary state?			N	′es []	No []
2.1	Has any change been made during the year of this statement in the charter, by-laws, a reporting entity?				′es []	No [X]
2.2	If yes, date of change:			<u></u>		
3.1	Is the reporting entity a member of an Insurance Holding Company System consisting is an insurer? If yes, complete Schedule Y, Parts 1 and 1A.	of two or more affiliated	I persons, one or more of w	which	'es [X]	No []
3.2	Have there been any substantial changes in the organizational chart since the prior qua	arter end?		Y	′es []	No [X]
3.3	If the response to 3.2 is yes, provide a brief description of those changes.					
3.4	Is the reporting entity publicly traded or a member of a publicly traded group?			Y	′es []	No [X]
3.5	If the response to 3.4 is yes, provide the CIK (Central Index Key) code issued by the S $$	EC for the entity/group.		······		
4.1	Has the reporting entity been a party to a merger or consolidation during the period cov If yes, complete and file the merger history data file with the NAIC for the annual filing of			N	'es []	No [X]
4.2	If yes, provide the name of the entity, NAIC Company Code, and state of domicile (use ceased to exist as a result of the merger or consolidation.	two letter state abbrev	iation) for any entity that h	as		
	1 Name of Entity	2 NAIC Company Code	3 State of Domicile			
5.	If the reporting entity is subject to a management agreement, including third-party adm in-fact, or similar agreement, have there been any significant changes regarding the te If yes, attach an explanation.	inistrator(s), managing rms of the agreement c	general agent(s), attorney or principals involved?	- Yes [] No [X] N/A []
6.1	State as of what date the latest financial examination of the reporting entity was made	or is being made.		<u>-</u>	12/31	/2014
6.2	State the as of date that the latest financial examination report became available from date should be the date of the examined balance sheet and not the date the report was				12/31	/2014
6.3	State as of what date the latest financial examination report became available to other the reporting entity. This is the release date or completion date of the examination report date).	ort and not the date of t	he examination (balance s	heet	05/31	/2016
6.4	By what department or departments?					
	State of Connecticut Insurance Department					
6.5	Have all financial statement adjustments within the latest financial examination report I statement filed with Departments?			Yes [] No [] N/A [X]
6.6	Have all of the recommendations within the latest financial examination report been co	mplied with?		Yes [X] No [] N/A []
7.1	Has this reporting entity had any Certificates of Authority, licenses or registrations (incl revoked by any governmental entity during the reporting period?				′es []	No [X]
7.2	If yes, give full information:					
8.1	Is the company a subsidiary of a bank holding company regulated by the Federal Rese	erve Board?		Y	'es []	No [X]
8.2	If response to 8.1 is yes, please identify the name of the bank holding company.					
8.3	Is the company affiliated with one or more banks, thrifts or securities firms?				/es[X]	No []

8.4 If response to 8.3 is yes, please provide below the names and location (city and state of the main office) of any affiliates regulated by a federal regulatory services agency [i.e. the Federal Reserve Board (FRB), the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC) and the Securities Exchange Commission (SEC)] and identify the affiliate's primary federal regulator.

1	2	3	4	5	6
Affiliate Name	Location (City, State)	FRB	000	FDIC	SEC
Baring International Investment Limited	London, UK				YES
Barings Global Advisers Limited	London, UK				YES
Barings Securities, LLC	Charlotte, NC				YES
MML Distributors, LLC	Enfield, CT				YES
MML Investment Advisers, LLC	Enfield, CT				YES
MML Investors Services, LLC	Springfield, MA				YES
MML Strategic Distributors, LLC	Springfield, MA				YES
MMLISI Financial Alliances, LLC	Springfield, MA				YES
The MassMutual Trust Company, FSB	Enfield, CT		YES		

GENERAL INTERROGATORIES

		-	
9.1 9.11	 Are the senior officers (principal executive officer, principal financial officer, principal accounting officer or controller similar functions) of the reporting entity subject to a code of ethics, which includes the following standards?	sonal and professional	Yes [X] No []
9.2 9.21	Has the code of ethics for senior managers been amended? If the response to 9.2 is Yes, provide information related to amendment(s).		Yes [] No [X]
9.3 9.31	Have any provisions of the code of ethics been waived for any of the specified officers? If the response to 9.3 is Yes, provide the nature of any waiver(s).		Yes [] No [X]
	FINANCIAL		
10.1 10.2	Does the reporting entity report any amounts due from parent, subsidiaries or affiliates on Page 2 of this statement If yes, indicate any amounts receivable from parent included in the Page 2 amount:		
	INVESTMENT		
11.1 11.2	Were any of the stocks, bonds, or other assets of the reporting entity loaned, placed under option agreement, or ot use by another person? (Exclude securities under securities lending agreements.) If yes, give full and complete information relating thereto: Repurchase agreements, letter stock or securities restricted as to sale - excluding FHLB Capital Stock, on deposit collateral - excluding collateral pledged to a FHLB.		Yes [X] No []
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	Does the reporting entity have any investments in parent, subsidiaries and affiliates?		Yes [X] No []
14.2	If yes, please complete the following:	1	0
		Prior Year-End Book/Adjusted Carrying Value	2 Current Quarter Book/Adjusted Carrying Value
	Bonds	\$	\$176,931,857
	Preferred Stock		\$
	Common Stock		\$
	Short-Term Investments	\$	\$
1425	Mongage Loans on Real Estate	3	3

14.25	Mortgage Loans on Real Estate	.\$	 \$			
14.26	All Other		 \$.71,53	3,347
14.27	Total Investment in Parent, Subsidiaries and Affiliates (Subtotal Lines 14.21 to 14.26)	\$	 \$		586,36	7,088
14.28	Total Investment in Parent included in Lines 14.21 to 14.26 above	\$	 \$			
	Has the reporting entity entered into any hedging transactions reported on Schedule DB? If yes, has a comprehensive description of the hedging program been made available to the domiciliary state? If no, attach a description with this statement.		Yes [Yes [-		-

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

16.1 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2.

16.2 Total book adjusted/carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2

16.3 Total payable for securities lending reported on the liability page.

GENERAL INTERROGATORIES

Excluding items in Schedule E - Part 3 - Special Deposits, real estate, mortgage loans and investments held physically in the reporting entity's offices, vaults or safety deposit boxes, were all stocks, bonds and other securities, owned throughout the current year held pursuant to a custodial agreement with a qualified bank or trust company in accordance with Section 1, III - General Examination Considerations, F. 17. Outsourcing of Critical Functions, Custodial or Safekeeping Agreements of the NAIC Financial Condition Examiners Handbook. For all agreements that comply with the requirements of the NAIC Financial Condition Examiners Handbook, complete the following: 17.1

Yes [X] No []

] No [X]

Yes [] No [X]

Yes [

1 Name of Custodian(s)	2 Custodian Address
	333 West 34th Street, New York, NY 10001 1 Chase Manhattan Plaza, 19th Floor, New York, NY 10005
0	801 Pennsylvania Avenue, Kansas City, MO 64105

17.2 For all agreements that do not comply with the requirements of the NAIC Financial Condition Examiners Handbook, provide the name, location and a complete explanation:

1	2	3
Name(s)	Location(s)	Complete Explanation(s)

17.3 Have there been any changes, including name changes, in the custodian(s) identified in 17.1 during the current quarter? ... 17.4 If yes, give full information relating thereto:

1	2	3	4
Old Custodian	New Custodian	Date of Change	Reason

17.5 Investment management - Identify all investment advisors, investment managers, broker/dealers, including individuals that have the authority to make investment decisions on behalf of the reporting entity. For assets that are managed internally by employees of the reporting entity, note as such. ["...that have access to the investment accounts"; "...handle securities"]

1 Name of Firm or Individual	2 Affiliation
Barings LLC	Annation
IFM Investors Pty Ltd	U
	-

17.5097 For those firms/individuals listed in the table for Question 17.5, do any firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") manage more than 10% of the reporting entity's assets?.....

17.5098 For firms/individuals unaffiliated with the reporting entity (i.e. designated with a "U") listed in the table for Question 17.5, does the Yes [] No [X] total assets under management aggregate to more than 50% of the reporting entity's assets?

17.6 For those firms or individuals listed in the table for 17.5 with an affiliation code of "A" (affiliated) or "U" (unaffiliated), provide the information for the

	1 Control Registration	2	3	4	5 Investment Management
	Central Registration Depository Number	Name of Firm or Individual	Legal Entity Identifier (LEI)	Registered With	Agreement (IMA) Filed
		Barings LLC		SEC	
	162754	IFM Investors Pty Ltd		SEC	NO
18.1 18.2	If no, list exceptions: At 9/30/2019, 19 issue	irements of the Purposes and Procedures Manual of the Nass for 13 issuers did not meet the filing requirements of the one or more of the following: Valid cusip/PPN, audited finant r 1.05% of all assets.	Purposes and Procedures Manual.	The majority of these	Yes [] No [X]
19.	a. Documentation security is not a b. Issuer or obligo c. The insurer has	or is current on all contracted interest and principal payment s an actual expectation of ultimate payment of all contracted	es not exist or an NAIC CRP credit r s. I interest and principal.	ating for an FE or PL	
	Has the reporting entit	ty self-designated 5GI securities?			Yes [X] No []
20.	a. The security way b. The reporting er c. The NAIC Desig on a current priv	GI securities, the reporting entity is certifying the following of s purchased prior to January 1, 2018. htity is holding capital commensurate with the NAIC Designs gnation was derived from the credit rating assigned by an Na vate letter rating held by the insurer and available for examinative tity is not permitted to share this credit rating of the PL sec	ation reported for the security. AIC CRP in its legal capacity as a NI nation by state insurance regulators.	-	
		ty self-designated PLGI securities?			Yes [] No [X]

GENERAL INTERROGATORIES

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

Life and 1.	I Accident Health Companies/Fraternal Benefit Societies: Report the statement value of mortgage loans at the end of this reporting period for the following categories:	1
	1.1 Long-Term Mortgages In Good Standing	Amount
	1.11 Farm Mortgages	\$
	1.12 Residential Mortgages	\$106,522,874
	1.13 Commercial Mortgages	\$
	1.14 Total Mortgages in Good Standing	\$938,035,699
	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)	\$938,035,699
1.6	Long-Term Mortgages Foreclosed, Properties Transferred to Real Estate in Current Quarter	
	1.61 Farm Mortgages	\$
	1.62 Residential Mortgages	\$
	1.63 Commercial Mortgages	\$
	1.64 Total Mortgages Foreclosed and Transferred to Real Estate	\$
2.	Operating Percentages:	
	2.1 A&H loss percent	%
	2.2 A&H cost containment percent	%
	2.3 A&H expense percent excluding cost containment expenses	%
3.1	Do you act as a custodian for health savings accounts?	Yes [] No [X]
3.2	If yes, please provide the amount of custodial funds held as of the reporting date	\$
3.3	Do you act as an administrator for health savings accounts?	Yes [] No [X]
3.4	If yes, please provide the balance of the funds administered as of the reporting date	\$
4.	Is the reporting entity licensed or chartered, registered, qualified, eligible or writing business in at least two states?	Yes [X] No []
4.1	If no, does the reporting entity assume reinsurance business that covers risks residing in at least one state other than the state of domicile of the reporting entity?	Yes [] No []
Fraterna 5.1	al Benefit Societies Only: In all cases where the reporting entity has assumed accident and health risks from another company, provisions should be made in this statement on account of such reinsurances for reserve equal to that which the original company would have been required to establish had it retained the risks. Has this been done?	
5.2	If no, explain:	
6 1	Does the repeting entity have subtanding accessments in the form of light against policy benefits that have increased surplus?	
6.1	Does the reporting entity have outstanding assessments in the form of liens against policy benefits that have increased surplus?	Yes [] No []

Date	Outstanding Lien Amount

SCHEDULE S - CEDED REINSURANCE

Showing All New Reinsurance Treaties - Current Year to Date

			Showing All New Reinsur	ance Treatles	- Current Y	ear to Date			
1	2	3	4	5	6		7	8 Certified	9 Effective Date of
NAIC Company	ID Number	Effective		Domiciliary	Type of Reinsurance	9		Reinsurer Rating (1 through 6)	Certified
Code	Number	Date	Name of Reinsurer Munich American Reassurance (MUT2) RGA Reinsurance Co. (GAT2) SCOR Global Life Americas Reins Co (TAT2) Swiss Re Life & Health America (SRT2)	Jurisdiction	Ceded		Type of Reinsurer	(1 through 6)	Rating
	58-0828824		- Munich American Reassurance (MUT2)	GA	YRT/I	Authorized			
	43-1235868		_ RGA Reinsurance Co. (GAT2)	МО	YRT/I	Authorized			
64688 82627			_SCOR Global Life Americas Reins Co (TAT2)	DE	YRT/I	Authorized			
82627	06-0839705		Swiss Re Life & Health America (SRT2)	MO	YRT/I	Authorized			
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STATEMENT AS OF SEPTEMBER 30, 2019 OF THE C.M. Life Insurance Company SCHEDULE T - PREMIUMS AND ANNUITY CONSIDERATIONS

r	Current Year To Date - Allocated by States and Territories Direct Business Only							
		1	Life Co	ntracts	4	iness Only 5	6	7
			2	3	Accident and	5	Ŭ	1
					Health Insurance Premiums,			
1		Active Status	Life Insurance	Annuity	Including Policy, Membership	Other	Total Columns	Deposit-Type
	States, Etc.	(a)	Premiums	Considerations	and Other Fees	Considerations	2 Through 5	Contracts
1.	AlabamaAL	L	1,842,126					
2. 3.	Alaska AK Arizona	L	45,113 2,404,201	6,300 				
	Arkansas AR	L	2,404,201				7,941,425	
5.	California CA	L						
6.	Colorado	Ļ	1,394,177					
7. 8.	Connecticut CT Delaware DE	L	5, 109,986 224,666				47,660,649 5,355,028	
8. 9.	Delaware	L		5, 130, 362			5,355,028	
10.	Florida	F						
	GeorgiaGA	Ļ	3,087,149					
12.	Hawaii	Ļ	1,579,122				7,803,776	
13. 14.	Idaho ID Illinois IL	LL		1,747,130 40,893,970			2,012,802 	
14.	Indiana IN	 L	1,985,899					
16.	Iowa IA	L		6,468,620			7, 389, 927	
17.	Kansas	Ļ					3, 145, 196	
18. 19.	Kentucky	L		6,230,778 12,273,849			7,057,317	
	Maine ME	L	1,077,297					
	Maryland MD	L	4,867,164					
22.	Massachusetts MA	L	3,938,156					
	Michigan MI	<u>L</u>	2,740,173					
	Minnesota MN Mississippi MS	L	3,117,912 1,708,601					
	Missouri MO	L		5,363,774				
27.	Montana MT	L		3,217,543			3,396,944	
	Nebraska NE	L		12,284,613				
	NevadaNV New HampshireNH	L		5,865,248 			6,862,620	
	New Jersey NH	<u>L</u>		10,972,145			11,813,100 	
32.	New Mexico NM	L		1, 150, 945			1,445,154	
33.	New York NY	N	5, 164,086				5,987,721	
	North Carolina	Ļ	5,263,799					
	North Dakota ND Ohio OH	L I		4,061,699 35,398,430			4,079,451 	
	Ohio OH Oklahoma OK	LL	3,910,602					
	Oregon OR						6,048,567	
39.	Pennsylvania PA	L	7, 132,842					
40.	Rhode Island	L						
41. 42.	South Carolina	L I	2,505,451 111,937	11,028,364 1,523,363			13,533,815 1,635,300	
	Tennessee TN	L						
44.	Texas TX	_ L						
	Utah UT	L	1, 347, 197	4,734,114			6,081,311	
	Vermont	L		4,215,319			4,569,865	
	Virginia VA Washington WA	L	4,114,754 2.031.843					
	Washington	L	2,031,843	1,982,464				
50.	Wisconsin WI	L	1, 192, 192					
	Wyoming	L		1,852,169			1,966,468	
	American Samoa AS Guam GU	N N						
53. 54.	Puerto Rico PR	N L		6,919,756				
	U.S. Virgin Islands VI	L		0,919,750				
	Northern Mariana IslandsMP	N	·				,	
	Canada CAN	N		F0.000				
58. 59.	Aggregate Other Aliens OT Subtotal	XXX 	61,653 					
90.	Reporting entity contributions for employee benefits		139,014,007	1,000,000,209			1,204,022,270	
	plans	XXX						
91.	Dividends or refunds applied to purchase paid-up additions and annuities	XXX						
92.	Dividends or refunds applied to shorten endowment							
00	or premium paying period.	XXX						
93.	Premium or annuity considerations waived under disability or other contract provisions	XXX	1,060,792				1,060,792	
94.	Aggregate or other amounts not allocable by State	XXX						
	Totals (Direct Business)	XXX	140,074,859	1,065,508,209			1,205,583,068	
96. 97	Plus Reinsurance Assumed Totals (All Business)	XXX .XXX		1,065,508,209			1,205,583,068	
97 98.	Less Reinsurance Ceded	XXX XXX		1,065,508,209			1,205,583,068	
	Totals (All Business) less Reinsurance Ceded		40,638,797	208,803,389			249,442,186	
	DETAILS OF WRITE-INS		· · ·			-		
	ZZZ Other Alien	XXX	61,653				111,653	
58002. 58003.		XXX XXX					<u> </u>	
	Summary of remaining write-ins for Line 58 from					+		
	overflow page	XXX						
58999.	Totals (Lines 58001 through 58003 plus 58998)(Line 58 above)	XXX	61,653	50,000			111,653	
9401.	56996)(Line 56 above)	XXX	01,000	00,000				
9402.		XXX						
9403.		XXX						
9498.	Summary of remaining write-ins for Line 94 from overflow page	XXX						
9499.	Totals (Lines 9401 through 9403 plus 9498)(Line						[
	94 above)	XXX			I		I	
	e Status Counts: ensed or Chartered - Licensed Insurance carrier (- Registered - No			

 (a) Active Status Counts:
 L - Licensed or Chartered - Licensed Insurance carrier or domiciled RRG......
 E - Eligible - Reporting entities eligible or approved to write surplus lines in the state.....
 N - None of the above - Not allowed to write business in the state......6

	The following entities are genera	l partner level or above	of Massachusetts Mutual Life 1	insurance Company (Parent)
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	<u>Federal Tax ID</u>	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 III, LLC	06-1041383		Delaware
CML Special Situations Investor LLC	None		Delaware
Berkshire Way LLC	04-1590850		Delaware
MML Special Situations Investor LLC	None		Delaware
Timberland Forest Holding LLC	47-5322979		Delaware
Lyme Adirondack Forest Company, LLC	None		Delaware
Lyme Adirondack Timber Sales, Inc.	20-5305426		New York
Lyme Adirondack Timberlands I, LLC	None		Delaware
Lyme Adirondack Timberlands II, LLC	None		Delaware
MSP-SC, LLC	04-1590850		Delaware
Insurance Road LLC	04-1590850		Delaware
MassMutual Trad Private Equity LLC	04-1590850		Delaware
MassMutual Intellectual Property LLC	04-1590850		Delaware
Trad Investments I LLC	None		Delaware
EM Opportunities LLC	None		Delaware
MassMutual MCAM Insurance Company, Inc.	None		Vermont
Jefferies Finance LLC	27-0105644		Delaware
APEX Credit Partners LLC	None		Delaware
JFIN GP Adviser LLC	None		Delaware
JFIN Fund III LLC	None		Delaware
JFIN Asset Management LLC	None		Delaware
JFAM GP LLC	None		Delaware
JFAM GP LP	None		Delaware
JFAM Loan Fund, LP	None		Delaware
JFIN Revolver Holdings LLC	None		Delaware
JFIN Revolver Holdings II LLC	None		Delaware
JFIN Co-Issuer Corporation	None		Delaware
JFIN Europe GP, S.a.r.l.	None		Luxembourg
Jefferies Finance Europe, SCSp Jefferies Finance Business Credit LLC	None None		Luxembourg Delaware
JETIENES Finance Business Credit LLC JFIN Business Credit Fund I LLC	None		Delaware
JFIN Business Credit Fund I LLC JFIN High Yield Investments LLC	None		Delaware
JFIN Fight Yield investments LLC JFIN LC Fund LLC	None		Delaware
JFIN LC Fund LLC JFIN Revolver CLO Holdings LLC	None		Delaware
JFIN Revolver CLO Holdings LLC JFIN Revolver Fund, L.P.	None		Delaware
JFIN REVOIVEFFUND, L.P. JFIN CLO 2007 Ltd.	None		Cayman Islands
JEIN CLO 2007 LAL	INONE		Cayman Islanus

	<u>Federal Tax ID</u>	NAIC Co Code	State of Domicile
JFIN CLO 2012 Ltd.	None		Cayman Islands
JFIN CLO 2012 Ltd.	None		Cayman Islands
JFIN CLO 2019 Ltd.	None		Cayman Islands
JFIN CLO 2014 Etd.	None		Cayman Islands
JFIN MM CLO 2014 Ltd.*	None		Cayman Islands
JFIN CLO 2015 Ltd.*	None		Cayman Islands
Apex Credit CLO 2015-II Ltd.*	None		Cayman Islands
JFIN Revolver CLO 2015 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017 Etd.	None		Cayman Islands
JFIN Revolver CLO 2017-III Ltd.	None		Cayman Islands
JFIN Revolver CLO 2017-III Etd.	None		Cayman Islands
JFIN Revolver CLO 2019 Ltd.	None		Cayman Islands
JFIN Revolver CLO 2019-II Ltd.	None		Cayman Islands
JFIN Revolver Fund. L.P.	None		Delaware
Apex Credit CLO 2016 Ltd.	None		Cavman Islands
Apex Credit CLO 2017 Ltd.	None		Cayman Islands
Apex Credit CLO 2017-II Ltd.	None		Cayman Islands
MassMutual Mortgage Lending LLC	None		Delaware
MassMutual Retirement Services, LLC	04-1590850		Delaware
MM Copper Hill Road LLC	04-1590850		Delaware
MML Distributors LLC*	04-3356880		Massachusetts
MML Investment Advisers, LLC	None		Delaware
MML Strategic Distributors, LLC	46-3238013		Delaware
The MassMutual Trust Company, FSB	06-1563535		Connecticut
MassMutual Asset Finance LLC*	26-0073611		Delaware
MMAF Equipment Finance LLC 2013-A	90-1005837		Delaware
MMAF Equipment Finance LLC 2014-A	36-4785301		Delaware
MMAF Equipment Finance LLC 2015-A	38-3969560		Delaware
MMAF Equipment Finance LLC 2016-A	32-0489588		Delaware
MMAF Equipment Finance LLC 2017-A	35-2590691		Delaware
MMAF Equipment Finance LLC 2017-B	32-0546197		Delaware
MMAF Equipment Finance LLC 2018-A	82-5335801		Delaware
MMAF Equipment Finance LLC 2019-A	83-3722640		Delaware
MMAF Equipment Finance LLC 2019-B	None		Delaware
Rozier LLC	None		Delaware
MML Private Placement Investment Company I, LLC	04-1590850		Delaware
MML Private Equity Fund Investor LLC	04-1590850		Delaware
MM Private Equity Intercontinental LLC	04-1590850		Delaware
Pioneers Gate LLC	45-2738137		Delaware
MassMutual Holding LLC	04-2854319		Delaware

	<u>Federal Tax ID</u> <u>NAIC Co Code</u>	State of Domicile
Fern Street LLC	37-1732913	Delaware
Haven Life Insurance Agency, LLC	46-2252944	Delaware
MassMutual Assignment Company	06-1597528	North Carolina
MassMutual Capital Partners LLC	04-1590850	Delaware
MassMutual Ventures Holding LLC	None	Delaware
Crane Venture Partners LLP	None	United Kingdom
MassMutual Ventures Management LLC	None	Delaware
MassMutual Ventures SEA Management Private Limited	None	Singapore
MassMutual Ventures Southeast Asia I LLC	None	Delaware
MassMutual Ventures UK LLC	None	Delaware
MassMutual Ventures US I LLC	47-1296410	Delaware
MassMutual Ventures US II LLC	None	Delaware
MM Rothesay Holdco US LLC	04-1590850	Delaware
MML Investors Services, LLC	04-1590850	Massachusetts
MML Insurance Agency, LLC	04-1590850	Massachusetts
MMLISI Financial Alliances, LLC	41-2011634	Delaware
LifeScore Labs, LLC	47-1466022	Massachusetts
MM Asset Management Holding LLC	45-4000072	Delaware
Barings LLC	51-0504477	Delaware
Baring Asset Management (Asia) Holdings Limited	98-0524271	Hong Kong, Special Administrative Region of China
Baring International Fund Managers (Bermuda) Limited	98-0457465	Bermuda
Baring Asset Management (Asia) Limited	98-0457463	Hong Kong, Special Administrative Region of China
Baring Asset Management Korea Limited	None	Korea
Barings Investment Management (Shanghai) Limited	None	Hong Kong, Special Administrative Region of China
Barings Overseas Investment Fund Management (Shanghai) Limited	None	Hong Kong, Special Administrative Region of China
Baring SICE (Taiwan) Limited	98-0457707	Taiwan ROC
Barings Japan Limited	98-0236449	Japan
Barings Australia Holding Company Pty Ltd	None	Australia
Barings Australia Pty Ltd	98-0457456	Australia
Barings Finance LLC	80-0875475	Delaware
BCF Europe Funding Limited	None	Ireland
BCF Senior Funding I LLC	None	Delaware
BCF Senior Funding I Designated Activity Company	None	Ireland
Barings Securities LLC	04-3238351	Delaware
Barings Guernsey Limited	98-0437588	Guernsey
Barings Europe Limited	None	United Kingdom
Barings Italy S.r.l.	None	Italy
Barings Sweden AB	None	Sweden
Barings Finland Oy	None	Finland
Barings Real Estate UK Holdings Limited	None	Delaware

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BREAE AIFM LLP	None		United Kingdom
Barings Real Estate Advisers (Continental Europe) Limited	98-0654401		United Kingdom
Barings Real Estate Advisers Europe LLP	98-0654388		United Kingdom
Barings Real Estate Advisers Europe Finance LLP	98-0654412		United Kingdom
Barings Real Estate GmbH	98-1194368		Germany
Baring Asset Management Limited	98-0241935		United Kingdom
Barings Global Advisors Limited	98-1012393		United Kingdom
BCGSS 2 GP LLP	None		United Kingdom
Barings European Direct Lending 1 GP LLP	None		United Kingdom
Baring International Investment Limited	98-0457328		United Kingdom
Baring International Investment Management Holdings	98-0457587		United Kingdom
Baring Asset Management UK Holdings Limited	98-0457576		United Kingdom
Baring Asset Management GmbH	98-0465031		Germany
Baring International Fund Managers (Ireland) Limited	98-0524272		Ireland
Baring Asset Management Switzerland Sarl	None		Switzerland
Baring France SAS	98-0497550		France
Baring Fund Managers Limited	98-0457586		United Kingdom
Baring Pension Trustees Limited	98-0457574		United Kingdom
Baring Investment Services Limited	98-0457578		United Kingdom
Barings Investment Fund (LUX) GP S.à. r.l.	None		Luxembourg
Barings GPC GP S.à. r.l.	None		Luxembourg
Almack Mezzanine GP III Limited	None		United Kingdom
Almack Holding Partnership GP Limited	None		United Kingdom
Almack Mezzanine Fund Limited	None		United Kingdom
Almack Mezzanine Fund II Limited	None		United Kingdom
Barings (U.K.) Limited	98-0432153		United Kingdom
Barings Multifamily Capital Holdings LLC	None		Delaware
Barings Multifamily Capital LLC	None		Michigan
Barings Multifamily Capital Corporation	None		Delaware
Barings Real Estate Advisers Inc.	04-3238351		California
Chassis Acquisition Holding LLC	81-2244465		Delaware
CRA Aircraft Holding LLC*	81-4258759		Delaware
Aland Royalty Holdings LP	None		Delaware
Intermodal Holding II LLC	46-2344300		Delaware
Milestone Acquisition Holding, LLC.	47-3055009		Delaware
Novation Companies, Inc.	None		Maryland
Red Lake Ventures, LLC	46-5460309		Delaware
Remington L & W Holdings LLC*	81-4065378		Connecticut
EIP Holdings I, LLC	None		Delaware
Tamiami Citrus, LLC	None		Delaware

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Teaktree Acquisition, LLC	None		Delaware
U.S. Pharmaceuticals Holdings I, LLC	46-0687392		Delaware
U.S. Pharmaceuticals Holdings II, LLC	47-5436800		Delaware
Validus Pharmaceuticals LLC	None		Delaware
VGS Acquisition Holding, LLC	None		Delaware
Aland Royalty GP, LLC	None		Delaware
Alaska Future Fund GP, LLC	None		Delaware
BAI Funds SLP, LLC	None		Delaware
BAI GP, LLC	None		Delaware
Barings Alternative Investments SLP, LLC	None		Delaware
Baring Asset-Based Income Fund (US) GP, LLC	None		Delaware
Barings Global Investment Funds (U.S.) Management LLC	04-1590850		Delaware
Babson Global Loan Feeder Management, LLC	None		Delaware
Barings ABIF SLP, LLC	None		Delaware
Barings CLO Investment Partners GP, LLC	None		Delaware
Barings Core Property Fund GP LLC	None		Delaware
Barings Direct Lending GP Ltd.	None		Cayman Islands
Barings Global Energy Infrastructure Advisors, LLC	None		Delaware
Barings Global Real Assets Fund GP, LLC	None		Delaware
Barings Multi Asset Income Fund	None		Hong Kong
Barings North American Private Loan Fund Management, LLC	None		Delaware
Barings/LAZ Parking Fund GP LLC	None		Delaware
Benton Street Advisors, Inc.	98-0536233		Cayman Islands
BRECS VII GP LLC	None		Delaware
CCM Fund I REIT Manager LLC	None		Delaware
CEMF I GP LLC	None		Delaware
CHY Venture GP LLC	None		Delaware
Cornerstone Hotel Fund GP, LLC	None		Delaware
CREF X GP LLC	None		Delaware
CREF VIII GP, LLC	None		Delaware
Great Lakes III GP, LLC	04-1590850		Delaware
Lake Jackson LLC	None		Delaware
Loan Strategies Management LLC	04-1590850		Delaware
Mezzco LLC	04-1590850		Delaware
Mezzco II LLC	02-0767001		Delaware
Mezzco III LLC	41-2280126		Delaware
Mezzeo IV LLC	80-0920285		Delaware
Mezzco Australia II LLC	None		Delaware
RECSA-NY GP LLC	None		Delaware
SBNP SIA II LLC	None		Delaware
Somerset Special Opportunities Management LLC	04-1590850		Delaware

	<u>Federal Tax ID</u>	NAIC Co Code	State of Domicile
Invesco Ltd.	None		Bermuda
MassMutual International LLC	04-3313782		Delaware
MassMutual Solutions LLC	None		Delaware
HarborTech (Asia) Limited	None		Hong Kong
Yunfeng Financial Group Limited	None		Hong Kong
MML Management Corporation	04-2443240		Massachusetts
MassMutual International Holding MSC, Inc.	04-3548444		Massachusetts
MassMutual Holding MSC, Inc.	04-3341767		Massachusetts
MML Mezzanine Investor II, LLC	04-1590850		Delaware
MML Mezzanine Investor III, LLC	04-1590850		Delaware
MassMutual External Benefits Group LLC	27-3576835		Delaware
Other Affiliates & Funds:			
100 w. 3 rd Street LLC	04-1590850		Delaware
300 South Tryon Hotel LLC	82-2432216		Delaware
300 South Tryon LLC	04-1590850		Delaware
Almack Mezzanine Fund I LP*	None		United Kingdom
Almack Mezzanine Fund II Unleveraged LP	None		United Kingdom
Almack Mezzanine Fund III LP*	None		United Kingdom
Barings Asset-Based Income Fund (US) LP	36-4868350		Delaware
Barings Emerging Markets Corporate Bond Fund	None		Ireland
Babson Capital Global Special Situation Credit Fund 2*	98-1206017		Delaware
Babson Capital Loan Strategies Fund, L.P.*	37-1506417		Delaware
Barings US High Yield Bond Fund*	None		Ireland
Babson CLO Ltd. 2012-II	None		Cayman Islands
Babson CLO Ltd. 2013-I	None		Cayman Islands
Babson CLO Ltd. 2014-I	None		Cayman Islands
Babson CLO Ltd. 2015-I	None		Cayman Islands
Babson CLO Ltd. 2015-II	None		Cayman Islands
Babson CLO Ltd. 2016-I	None		Cayman Islands
Babson CLO Ltd. 2016-II	None		Cayman Islands
Barings CLO Ltd. 2017-I	None		Cayman Islands
Barings CLO 2018-III	None		Cayman Islands
Barings CLO 2018-IV	None		Cayman Islands
Barings CLO 2019-I	None		Cayman Islands
Barings CLO 2019-II	98-1473665		Cayman Islands
Barings CLO 2019-III	None		Cayman Islands
Babson Euro CLO 2014-I BV	None		Netherlands
Babson Euro CLO 2014-II BV	None		Netherlands
Babson Euro CLO 2015-I BV	None		Netherlands
Babson Euro CLO 2016-I BV	None		Netherlands
Barings Global Em. Markets Equity Fund	82-5330194		North Carolina

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Barings Global Energy Infrastructure Fund I LP	98-1332384	Cayman Islands
Barings Global Inv. Grade Strat Fund	None	Ireland
Barings Global Private Loan Fund	None	Luxembourg
Barings Global Real Assets Fund LP	82-3867745	Delaware
Barings Global Special Situations Credit Fund 3	None	Ireland
Barings Middle Market CLO 2017-I Ltd & LLC	None	Cayman Islands
Barings Middle Market CLO 2018-I	None	Cayman Islands
Barings North American Private Loan Fund LP	38-4010344	Delaware
Barings RE Credit Strategies VII LP	98-1332384	Delaware
Baring International Small Cap Equity Fund	26-4142796	Delaware
Barings CLO Investment Partners LP	81-0841854	Delaware
Barings Real Estate European Value Add I SCSp*	None	United Kingdom
Braemar Energy Ventures I, L.P. *	None	Delaware
Barings European Core Property Fund SCSp	None	Luxembourg
Benchmark 2018-B2 Mortgage Trust	38-4059932	New York
Benchmark 2018-B4	None	New York
Benchmark 2018-B8	38-4096530	New York
Braselton Point LLC	04-1590850	Delaware
Cornerstone High Yield Venture LP	36-4770946	Delaware
Barings/LAZ Parking Fund LP	46-5437441	Delaware
Barings Core Property Fund LP	20-5578089	Delaware
Cornerstone Real Estate Fund VIII LP	27-0547156	Delaware
Cornerstone Real Estate Fund X LP	46-5432619	Delaware
Cornerstone Permanent Mortgage Fund III LLC	35-2531693	Massachusetts
Gateway Mezzanine Partners II LP*	90-0991195	Delaware
Great Lakes III, L.P.	37-1708623	Delaware
JPMCC Commercial Mortgage Securities Trust 2017-JP7	38-4041011; 38-4041012	New York
JPMDB Commercial Mortgage Securities Trust 2017-C5	38-4032059	New York
KKR-MM Vector LP	82-1512591	Delaware
Marco Hotel LLC	46-4255307	Delaware
Miami Douglas One GP LLC*	04-1590850	Delaware
HB Naples Golf Owner LLC	45-3623262	Delaware
MM Debt Participations LLC	81-3000420	Delaware
RB Apartments LLC	82-4411267	Delaware
Reston Arboretum LLC	75-2901061	Delaware
Rockall CLO B.V.	None	United Kingdom
Rockville Town Center LLC	54-2055778	Virginia
Somerset Special Opportunities Fund L.P.*	20-8856877	Delaware
Ten Fan Pier Boulevard LLC	35-2553915	Delaware
Tower Square Capital Partners II, L.P.*	30-0336246	Delaware
Tower Square Capital Partners II-A, L.P.	32-0160190	Delaware

	<u>Federal Tax ID</u>	NAIC Co Code	State of Domicile
Tower Square Capital Partners III, L.P.	41-2280127		Delaware
Tower Square Capital Partners IIIA, L.P.	41-2280129		Delaware
Tower Square Capital Partners IV-A, L.P.	80-0920367		Delaware
Trailside MM Member LLC*	04-1590850		Delaware
Washington Gateway Two LLC*	83-1325764		Delaware
Washington Gateway Three LLC*	32-0574045		Delaware
West 46 th Street Hotel LLC	05-1590850		Delaware
Barings Affiliates & Funds:			
Barings Emerging Markets Debt Short Duration Fund	None		Ireland
Barings Emerging Markets Sovereign Debt Fund	None		Ireland
Babson Capital Loan Strategies Master Fund LP	None		Cayman Islands
Barings Global High Yield Fund	47-3790192		Massachusetts
Barings Total Return Bond Fund	47-3734770		Massachusetts
Barings U.S. High Yield Fund	47-3801860		Massachusetts
Great Lakes II LLC*	71-1018134		Delaware
Barings Real Estate Affiliates & Funds:			
Wood Creek Venture Fund LLC	04-1590850		Delaware
50 Liberty LLC*	36-4823011		Delaware
One Harbor Shore LLC*	80-0948028		Delaware
Budapester Strasse LLC	81-4382111		Delaware
Calgary Railway Holding LLC*	82-2285211		Delaware
Combrook PRS Holdings LLC	82-3307907		Delaware
Cornerstone California Mortgage Fund I LLC	95-4207717		California
Cornerstone California Mortgage Fund II LLC	95-4207717		California
Cornerstone California Mortgage Fund III LLC	95-4207717		California
Cornerstone Fort Pierce Development LLC*	56-2630592		Delaware
Cornerstone Permanent Mortgage Fund	45-2632610		Massachusetts
Cornerstone Permanent Mortgage Fund II	61-1750537		Massachusetts
Cornerstone Permanent Mortgage Fund III	35-2531693		Massachusetts
Cornerstone Permanent Mortgage Fund IV	61-1793735		Massachusetts
CREA Madison Member LLC	81-0890084		Delaware
CCB Montford Park LLC*	82-1563809		Delaware
Danville Riverwalk Venture, LLC	82-2783393		Delaware
Fan Pier Development LLC*	20-3347091		Delaware
Farringdon London Holdings LLC*	46-3880526		Delaware
Landmark Manchester Holdings LLC	81-5360103		Delaware
MM Island Member LLC	04-1590850		Delaware
NoHo West Venture LLC	83-0881588		Delaware
PACO France Logistics LLC	04-1590850		Delaware
PACO France Logistics 2 LLC	04-1590850		Delaware
PACO France Logistics 3 LLC	04-1590850		Delaware

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Portland 400 Sixth Manager LLC	82-3393166		Delaware
Salomon Brothers Commercial Mortgage Trust 2001-MM	None		Delaware
Sawgrass Village Shopping Center LLC*	27-2977720		Delaware
Spain Avalon Holding LLC	04-1590850		Delaware
Three PW Office Holding LLC	81-5273574		Delaware
Twenty Two Liberty LLC*	35-2484550		Massachusetts
UK LÍW Manager LLC	45-4606547		Delaware
UK LIW Member LLC	45-4606547		Delaware
Unna, Dortmund Holding LLC	82-3250684		Delaware
Via Ceresio Milan LLC	82-3281588		Delaware
Washington Gateway Apartments Venture LLC*	45-5401109		Delaware
Waterloo London Holdings LLC	47-1993493		Delaware
Ygnatio Valley Funding	20-5481477		Delaware
MassMutual Premier Funds:			
MassMutual Barings Dynamic Allocation Fund	45-3168892		Massachusetts
MassMutual Premier Focused International Fund	02-0754273		Massachusetts
MassMutual Premier Main Street Fund	51-0529328		Massachusetts
MassMutual Premier Strategic Emerging Markets Fund	26-3229251		Massachusetts
MassMutual Premier Value Fund	04-3277550		Massachusetts
MassMutual Select Funds:			
MassMutual Select Diversified International Fund	14-1980900		Massachusetts
MassMutual Select Diversified Value Fund	01-0821120		Massachusetts
MassMutual Select Fundamental Growth Fund	04-3512593		Massachusetts
MassMutual Select Large Cap Value Fund	04-3513019		Massachusetts
MassMutual Select Mid-Cap Value Fund	42-1710935		Massachusetts
MassMutual Select Small Capital Value Equity Fund	02-0769954		Massachusetts
MassMutual Select Small Company Value Fund	04-3584140		Massachusetts
MassMutual Select T. Rowe Price Retirement 2005 Fund	82-3347422		Massachusetts
MassMutual Select T. Rowe Price Retirement 2010 Fund	82-3355639		Massachusetts
MassMutual Select T. Rowe Price Retirement 2015 Fund	82-3382389		Massachusetts
MassMutual Select T. Rowe Price Retirement 2020 Fund	82-3396442		Massachusetts
MassMutual Select T. Rowe Price Retirement 2025 Fund	82-3417420		Massachusetts
MassMutual Select T. Rowe Price Retirement 2030 Fund	82-3430358		Massachusetts
MassMutual Select T. Rowe Price Retirement 2035 Fund	82-3439837		Massachusetts
MassMutual Select T. Rowe Price Retirement 2040 Fund	82-3451779		Massachusetts
MassMutual Select T. Rowe Price Retirement 2045 Fund	82-3472295		Massachusetts
MassMutual Select T. Rowe Price Retirement 2050 Fund	82-3481715		Massachusetts
MassMutual Select T. Rowe Price Retirement 2055 Fund	82-3502011		Massachusetts
MassMutual Select T. Rowe Price Retirement 2060 Fund	82-3525148		Massachusetts
MassMutual Select T. Rowe Price Retirement Balanced Fund	82-3533944		Massachusetts

	Federal Tax ID NAIC Co Co	de <u>State of Domicile</u>
MML Series Investment Funds:		
MML Series International Equity Fund	46-4257056	Massachusetts
MML Series Investment Funds II:		
MML Series II Asset Momentum Fund	47-3517233	Massachusetts
MML Series II Dynamic Bond Fund	47-3529636	Massachusetts
MML Series II Equity Rotation Fund	47-3544629	Massachusetts
MML Series II Special Situations Fund	47-3559064	Massachusetts
MassMutual RetireSMART Funds:		
MassMutual RetireSMART 2055 Fund	46-3289207	Massachusetts
MassMutual RetireSMART 2060 Fund	47-5326235	Massachusetts
MassMutual RetireSMART Conservative Fund	45-1618155	Massachusetts
MassMutual RetireSMART Growth Fund	45-1618222	Massachusetts
MassMutual RetireSMART In Retirement Fund	03-0532464	Massachusetts
MassMutual RetireSMART Moderate Fund	45-1618262	Massachusetts
MassMutual RetireSMART Moderate Growth Fund	45-1618046	Massachusetts

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						Exchange		Domi-	ship		Management,	ship		Filing	
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Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence.	Percen-	Ultimate Controlling	quired?	>
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)		Entity(ies)/Person(s)	(Y/N)	*
Code	Gloup Name	Code	Number	n33D	UIK	international)		lion	Enuty	Massachusetts Mutual Life Insurance	Other)	tage	Entity(ies)/Person(s)	(T/N)	-
							Massachusetts Mutual Life Insurance Company		100				184 10		
0435 N	Massachusetts Mut Life Ins Co		04-1590850	3848388			(MMLIC)	MA	UDP	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
	CM Life Ins Co		06-1041383				C.M. Life Insurance Company	CT	RE	Company	Ownership				
	MML Baystate Life Ins Co		43-0581430				MML Bay State Life Insurance Company	CT	IA	C.M. Life Insurance Company	Ownership	100.000			
			06-1041383				CML Mezzanine Investor III, LLC	DE	DS	C.M. Life Insurance Company	Ownership				
							CML Special Situations Investor LLC	DE	DS	C.M. Life Insurance Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000							MML Special Situations Investor LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			47-5322979				Timberland Forest Holding LLC	DE	NIA	Company	Ownership	100.000			
			47-5322979				Timberland Forest Holding LLC	DE	NI A	C.M. Life Insurance Company	Ownership		. MMLIC		
			47-5322979				Timberland Forest Holding LLC	DE	NI A	Wood Creek Capital Management LLC	Management		MMLIC		
							Lyme Adirondack Forest Company, LLC	DE	NI A	Timberland Forest Holding LLC	Ownership		MMLIC		
0000			20-5305426				Lyme Adirondack Timber Sales, Inc	NY	NI A	Timberland Forest Holding LLC	Ownership				
0000							Lyme Adirondack Timberlands I, LLC	DE	NI A	Timberland Forest Holding LLC	Ownership		MMLIC		
0000							Lyme Adirondack Timberlands II, LLC	DE	NI A	Timberland Forest Holding LLC	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				Berkshire Way LLC	DE	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			04-1590850				MSP-SC, LLC	DE	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance	·				
0000							EM Opportunities LLC	DE	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
							MassMutual MCAM Insurance Company. Inc.	VT	NIA	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			04-1590850				Insurance Road LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Trad Private Equity LLC	DE DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
0000			04-1590850				MassMutual Intellectual Property LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
							Trad Investments I LLC	DE	NIA	Insurance Road LLC	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			27-0105644				Jefferies Finance LLC	DE	NIA	Company	Ownership	50,000	MMLIC		1
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0000							MassMutual Mortgage Lending LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
							Apex Credit Partners LLC	DE	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC	-	
0000							JFIN GP Adviser LLC		NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
							JFIN Revolver Fund. L.P.	DE	NIA	Jefferies Finance LLC	Ownership.	100.000	MMLIC	-	
0000							JFIN Fund III LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
							JFIN Asset Management LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFAM GP LLC	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000			
							JFAM GP LLC	DE		JFIN Asset Management, LLC	Ownership	100.000	MMLIC	-	
							JFAM Loan Fund, LP	DE	NIA	JFIN Asset Management, LLC	Ownership	100.000	MMLIC		
							JFIN Revolver Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
							JFIN Revolver Holdings II LLC	DE	NIA NIA	Jefferies Finance LLC	Ownership	100.000			
								DE	NIA NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
							JFIN Co-Issuer Corporation		NIA NIA			100.000	MMLIC		
							JFIN Europe GP, S.a.r.I.			Jefferies Finance LLC	Ownership	100.000			
0000							Jefferies Finance Europe, SCSp	LUX	NIA						
0000							Jefferies Finance Business Credit LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000			
0000							JFIN Business Credit Fund I LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000			
0000							JFIN High Yield Investments LLC	DE	NI A	Jefferies Finance LLC	Ownership	100.000			
							JFIN LC Fund LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000			
							JFIN Revolver Fund, L.P.	DE	NI A	Jefferies Finance LLC	Ownership				
0000							JFIN Revolver CLO Holdings LLC	DE	NIA	Jefferies Finance LLC	Ownership	100.000			
							JFIN CL0 2007 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership				

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Group		Company	ID	Federal		(U.Ś. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Éntity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000						· · · · · · · · · · · · · · · · · · ·	JFIN CLO 2012 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership				
0000							JFIN CLO 2013 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000			
0000							JFIN CLO 2014-11 Ltd	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	. MMLIC		
0000							JFIN MM CLO 2014 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	. MMLIC		
							JFIN CLO 2015 Ltd.	<u>CYM</u>	NIA NIA	Jefferies Finance LLC	Ownership	44.000	MMLIC		
0000							JFIN CLO 2015 Ltd JFIN Revolver Fund, L.P		NIA NIA	Apex Credit Partners LLC Jefferies Finance LLC	Ownership Ownership	56.000 58.000	MMLIC		
0000							Apex Credit CLO 2015-II Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	33.000	MMLIC		
0000							Apex Credit CLO 2015-11 Ltd.	CYM	NIA	Apex Credit Partners LLC	Ownership	53.000	MMLIC		
0000							JFIN Revolver CLO 2014 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO 2015 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO 2017 Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	MMLIC		
0000							JFIN Revolver CLO 2017-II Ltd	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	. MMLIC		
0000							JFIN Revolver CLO 2017-III Ltd	CYM	NI A	Jefferies Finance LLC	Ownership		. MMLIC		
0000							JFIN Revolver CLO 2018 Ltd.	CYM	NI A	Jefferies Finance LLC	Ownership	100.000	. MMLIC		
0000							JFIN Revolver CLO 2019 Ltd.	CYM	NIA	Jefferies Finance LLC	Ownership	100.000	. MMLIC		
0000							JFIN Revolver CLO 2019-II Ltd.	CYM	NIA NIA	Jefferies Finance LLC Jefferies Finance LLC	Ownership Ownership	100.000	- MMLIC		
0000							Apex Credit CLO 2016 Ltd Apex Credit CLO 2017 Ltd	CYM	NIA	Jefferies Finance LLC	Ownership	100.000			
0000							Apex Credit CLO 2017-II Ltd.	CYM.	NIA.	Jefferies Finance LLC	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance	owner simp				
0000			04-1590850				MassMutual Retirement Services, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
							,			Massachusetts Mutual Life Insurance					
0000			04-1590850				MM Copper Hill Road LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-3356880				MML Distributors LLC	MA	NIA	Company	Ownership	99.000			
0000			04-3356880				MML Distributors LLC	MA	NI A	MassMutual Holding LLC	Ownership	1.000			
0000								DE		Massachusetts Mutual Life Insurance		400,000			
0000							MML Investment Advisers, LLC	DE	NI A	Company Massachusetts Mutual Life Insurance	Ownership		_ MMLIC		
			46-3238013				MML Strategic Distributors, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			40-3230013				www. Strategic Distributors, LLC	UE	NIA	Massachusetts Mutual Life Insurance	owner simp				
			06-1563535	2881445			The MassMutual Trust Company, FSB	CT	NIA	Company	Ownership	100.000	MMLIC	Y	
							no macomataat naot company, too			Massachusetts Mutual Life Insurance					
0000			26-0073611				MassMutual Asset Finance LLC	DE	NIA	Company	Ownership		MMLIC		
			26-0073611				MassMutual Asset Finance LLC	DE	NIA	C.M. Life Insurance Company	Ownership	0.400	MMLIC		
0000			90-1005837				MMAF Equipment Finance LLC 2013-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	. MMLIC	-	
0000			36-4785301				MMAF Equipment Finance LLC 2014-A	DE	NI A	MassMutual Asset Finance LLC	Ownership	100.000	. MMLIC	.	
0000			38-3969560				MMAF Equipment Finance LLC 2015-A	DE	NIA	MassMutual Asset Finance LLC	Ownership		. MMLIC	-	
			32-0489588	-			MMAF Equipment Finance LLC 2016-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	- MMLIC	-	
0000			35-2590691 32-0546197				MMAF Equipment Finance LLC 2017-A MMAF Equipment Finance LLC 2017-B	DE	NIA NIA	MassMutual Asset Finance LLC	Ownership		. MMLIC	-	
			32-0546197 82-5335801				MMAF Equipment Finance LLC 2017-B MMAF Equipment Finance LLC 2018-A	DE	NIA NIA	MassMutual Asset Finance LLC MassMutual Asset Finance LLC	Ownership Ownership.	100.000	MMLIC	-	
0000			83-3722640				MMAF Equipment Finance LLC 2010-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		
			00 0122040				MMAF Equipment Finance LLC 2019-A	DE	NIA	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC	- [1
							Rozier LLC	DE	NIA.	MassMutual Asset Finance LLC	Ownership	100.000	MMLIC		1
							MML Private Placement Investment Company I,			Massachusetts Mutual Life Insurance	· · · · ·				
0000			04-1590850				LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
			04-1590850				MML Private Equity Fund Investor LLC	DE	NI A	Company	Ownership		. MMLIC	-	
0000			04-1590850				MML Private Equity Fund Investor LLC	DE	NIA	Baring Asset Management Limited	Management		_ MMLIC	-	
0000			04-1590850				MM Private Equity Intercontinental LLC	DE	NI A	MML Private Equity Fund Investor LLC	Ownership	100.000	MMLIC	-	
0000			45 0700107				Disease Octo 11.0	DE	NLA	Massachusetts Mutual Life Insurance	0	100,000		1	
0000			45-2738137				Pioneers Gate LLC	UE	NI A	Company	Ownership	100.000	MMLIC		

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Group	- ···	Company	ID	Federal	(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK Internationa) Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	^
									Massachusetts Mutual Life Insurance					
			04-2854319	2392316		MassMutual Holding LLC	DE	NI A	Company	Ownership	100.000	MMLIC	Y	
0000			06-1597528			MassMutual Assignment Company	NC	NI A	MassMutual Holding LLC	Ownership	100.000	MMLIC		
			37-1732913 46-2252944			Fern Street LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000			
						Haven Life Insurance Agency, LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000			
			04-1590850			MassMutual Capital Partners LLC	DE DE	NIA NIA	MassMutual Holding LLC	Ownership	100.000 100.000	MMLIC		
						MassMutual Ventures Holding LLC	UE		MassMutual Holding LLC MassMutual Holding LLC	Ownership Ownership				
							DE	NIA	MassMutual Holding LLC	Ownership Ownership	100.000	MMLIC		
						MassMutual Ventures SEA Management Private		NIA	Massimutual Hording LLC	ownersnip	100.000	NMMLTC		
0000						Limited	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
						MassMutual Ventures Southeast Asia LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
								NIA	MassMutual Holding LLC	Ownership	100.000	- MMLIC		
			47-1296410			MassMutual Ventures US LLC		NIA	MassMutual Holding LLC	Ownership	100.000			
			47-1230410					NIA	MassMutual Holding LLC	Ownership	100.000	- MMLIC		
			04-1590850			MM Rothesav Holdco US LLC	DE	NIA	MassMutual Holding LLC	Ownership	100.000	MMLIC		
			47-1466022			LifeScore Labs. LLC	DL	NIA	MassMutual Holding LLC	Ownership	100.000	- MMLIC		
			04-1590850			MML Investors Services, LLC	MA	NIA	MassMutual Holding LLC	Ownership	100.000			
			04-1590850				MA	NIA	ML Investors Services. LLC	Ownership	100.000			
			41-2011634			MML IISU Ance Agency, LLC	DE	NIA	MML Investors Services, LLC	Ownership	100.000			
			45-4000072			MM Asset Management Holding LLC		NIA	MassMutual Holding LLC	Ownership	100.000			
0000			51-0504477			Barings LLC	DE	NIA	MassMutual Asset Management Holding LLC	Ownership	100.000	MILIC		
			01 0001111			Baring Asset Management (Asia) Holdings			madomatual hoodt management horaring EE0					
0000			98-0524271			Limited	HKG	NIA	Barings LLC	Ownership	100.000	MMLIC		
						Baring International Fund Managers (Bermuda)			Baring Asset Management (Asia) Holdings					
0000			98-0457465			Limited	BMU	NIA	Limited	Ownership	100.000	MMLIC		
									Baring Asset Management (Asia) Holdings					
0000			98-0457463			Baring Asset Management (Asia) Limited	HKG	NIA	Limited	Ownership	100.000	MMLIC		
						Baring Asset Management Korea Limited	KOR	NIA	Baring Asset Management (Asia) Limited	Ownership.	100.000	MMLIC		
						Barings Investment Management (Shanghai)								
						Limited	HKG	NIA	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
						Barings Overseas Investment Fund Management			• • • · ·					
						(Shanghai) Limited	HKG	NI A	Baring Asset Management (Asia) Limited	Ownership	100.000	MMLIC		
1									Baring Asset Management (Asia) Holdings					
			98-0457707			Baring SICE (Taiwan) Limited		NI A	Limited	Ownership	100.000	MMLIC		
1									Baring Asset Management (Asia) Holdings					
			98-0236449			Barings Japan Limited	JPN	NI A	Limited	Ownership	100.000	MMLIC		
1									Baring Asset Management (Asia) Holdings					
						Barings Australia Holding Company Pty Ltd	AUS	NI A	Limited	Ownership	100.000	MMLIC		
			98-0457456			Barings Australia Pty Ltd	AUS	NI A	Baring Australia Holding Company Pty Ltd.	Ownership	100.000	MMLIC		
			80-0875475			Barings Finance LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
						BCF Europe Funding Limited	IRL	NI A	Barings Finance LLC	Ownership	100.000	MLIC		
						BCF Senior Funding LLC	DE	NIA	Barings Finance LLC	Ownership	100.000	MMLIC		
						BCF Senior Funding I Designated Activity								
						Company	IRL	NIA	Barings Finance LLC	Ownership	100.000			
			04-3238351			Barings Securities LLC	DE	NI A	Barings LLC	Ownership	100.000	MMLIC		
			98-0437588			Barings Guernsey Limited	GGY	NIA	Barings LLC	Ownership	100.000			
						Barings Europe Limited	GBR	NI A	Barings Guernsey Limited	Ownership	100.000	MMLIC		
						Barings Italy S.r.I.	ITA		Barings Europe Limited	Ownership	100.000			
						Barings Sweden AB		NI A	Barings Europe Limited	Ownership	100.000	MMLIC		
						Barings Finland Oy	FIN	NIA	Barings Europe Limited	Ownership	100.000			
						Barings Real Estate UK Holdings Limited	DE	NI A	Barings Europe Limited	Ownership	100.000			
0000						BREAE AIFM LLP	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	NMLIC		

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											(Ownership,	is		ls an	
						Name of Securities			Relation-		Board.	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Company	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
Coue	Gloup Name	Coue	Number	N33D	UIN	international)	Barings Real Estate Advisers (Continental	lion	Linuty	(Name of Entity/Ferson)	Other)	laye	Litity(les)/Feison(s)	(1/1)	
			98-0654401				Europe) Limited	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
0000			98-0654388				Barings Real Estate Advisers Europe LLP	GBR		Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
							Barings Real Estate Advisers Europe Finance			Sal nigo noar Estato on noranigo Emitoa					
			98-0654412				LLP	GBR	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
			98-1194368				Barings Real Estate GmbH	DEU	NIA	Barings Real Estate UK Holdings Limited	Ownership	100.000	MMLIC		
			98-0241935				Baring Asset Management Limited	GBR	NIA	MassMutual Holdings (Bermuda) Limited	Ownership	100.000	MMLIC		
			98-1012393				Barings Global Advisors Limited	GBR		Baring Asset Management Limited	Ownership		MMLIC		
							BCGSS 2 GP LLP	GBR		Baring Asset Management Limited	Ownership	100.000			
							Barings European Direct Lending 1 GP LLP	GBR		Baring Asset Management Limited	Ownership		. MMLIC		
			98-0457328				Baring International Investment Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
0000			00 0453503				Baring International Investment Management	000				400.000			
0000			98-0457587				Holdings	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	_ MMLIC		+
0000			98-0457576				Design Accel Housement IV Usualized Linited	000	NIA	Baring International Investment Management	0	100,000	144 10		
0000			98-045/5/6				Baring Asset Management UK Holdings Limited .	GBR	NIA	Holdings Baring Asset Management UK Holdings Limited	Ownership	100.000	_ MMLIC		
			98-0465031				Baring Asset Management GmbH	DEU	NIA	baring Asset management on Hordings Limited	Ownership	_100.000	MMLIC		
			96-0403031				Baring International Fund Managers (Ireland)	DEU	NIA	Baring Asset Management UK Holdings Limited	ownership		. MML10		
			98-0524272				Limited	IRL	NIA	Darring Asset management on norunnys Ermited	Ownership	100.000	MMLIC		
			30-0324272							Baring Asset Management UK Holdings Limited	ownersmp		LIC		
							Baring Asset Management Switzerland Sàrl	CHE	NIA	barning hoode management or horanings Eninted	Ownership	100.000	MMLIC		
							bar mig nooot management entreen tana eart			Baring Asset Management UK Holdings Limited					
0000			98-0497550				Baring France SAS	FRA	NIA		Ownership	100.000	MMLIC		
			98-0457586				Baring Fund Managers Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000	MMLIC		
			98-0457574				Baring Pension Trustees Limited	GBR	NI A	Baring Asset Management Limited	Ownership	100.000	MLIC		
0000			98-0457578				Baring Investment Services Limited	GBR		Baring Asset Management Limited	Ownership	100.000	_ MMLIC		
0000							Barings GPC GP S.à. r.I	LUX		Baring Asset Management Limited	Ownership		. MMLIC		
							Barings Investment Fund (LUX) GP S.à. r.I .	LUX		Baring Asset Management Limited	Ownership	100.000			
							Almack Mezzanine GP III Limited	GBR		Baring Asset Management Limited	Ownership		. MMLIC		
0000							Almack Holding Partnership GP Limited	GBR	NIA	Baring Asset Management Limited	Ownership	100.000			
0000							Almack Mezzanine Fund Limited Almack Mezzanine Fund II Limited	GBR GBR	NIA NIA	Baring Asset Management Limited	Ownership Ownership	100.000 100.000	. MMLIC		
0000			98-0432153				Barings (U.K.) Limited	GBR		Baring Asset Management Limited Barings Guernsev Limited	Ownership	100.000	MMLIC		+
0000			30-0402 100				Barings (U.K.) Limited Barings Multifamily Capital Holdings LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		-
							Barings Multifamily Capital LLC	MI		Barings LLC	Ownership	100.000	MMLIC		1
							Barings Multifamily Capital Corporation	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
			04-3238351	3456895			Barings Real Estate Advisers Inc.	CA	NIA	Barings Real Estate Advisers LLC	Ownership	100.000	MMLIC		
							<u> </u>			Massachusetts Mutual Life Insurance					
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NI A	Company	Ownership/Influence		MMLIC		
0000			81-2244465				Chassis Acquisition Holding LLC	DE	NI A	Barings LLC	Influence	ļ	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			81-4258759				CRA Aircraft Holding LLC	DE	NI A	Company	Ownership/Influence		MMLIC		
			81-4258759				CRA Aircraft Holding LLC	DE	NIA	Barings LLC	Influence		_ MMLIC		
0000			00.0500.000					DF		Massachusetts Mutual Life Insurance		00.000			
0000			83-0560183				Aland Royalty Holdings LP	DE	NIA	Company	Ownership	26.600			
0000			83-0560183				Aland Royalty Holdings LP	DE	NI A	Barings LLC	Management	+	_ MMLIC		+
			46-2344300				Internedal Haldings II IIC	DE	NIA	Massachusetts Mutual Life Insurance	Oursenabia	.18.000			
			46-2344300				Intermodal Holdings II LLC Milestone Acquisition Holding, LLC	DE DE	NIA NIA	Company MassMutual Holding LLC	Ownership Ownership/Influence	18.000	MMLIC		+
0000			47-3055009				Milestone Acquisition Holding, LLC	DE	NIA	Barings LLC	Influence		- MMLIC		
			+1.0000003				minostone Acquisition norunny, LLC.			Massachusetts Mutual Life Insurance	11111401106	+			
							Novation Companies, Inc	MD	NIA	Company	Ownership	20.700	MMLIC		
							interaction comparisos, mer			Massachusetts Mutual Life Insurance	sine on p				1
			46-5460309				Red Lake Ventures, LLC	DE	NIA	Company	Ownership/Influence		MMLIC		
			6000000				Inou Lano Volituico, LLO			oompany					

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	?
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000			46-5460309			·	Red Lake Ventures, LLC	DE	NIA	Barings LLC	Influence	Ŭ	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			81-4065378				Remington L & W Holdings LLC	CT	NIA	Company	Ownership/Influence	66,700	MMLIC		
			81-4065378				Remington L & W Holdings LLC	CT	NIA	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
							Tamiami Citurus. LLC	DE	NIA	Company	Ownership.	.15.700	MMLIC		
0000							Teaktree Acquisition, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence	14.700	MMLIC		
							Teaktree Acquisition, LLC	DE	NIA	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
			46-0687392				US Pharmaceutical Holdings I, LLC	DE	NIA	Company	Management.		MMLIC		
										Massachusetts Mutual Life Insurance					[
			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Company	Ownership/Influence	42,400	MMLIC		
			20-2970495				US Pharmaceutical Holdings II, LLC	DE	NIA	Barings LLC	Influence.		MMLIC		
										Massachusetts Mutual Life Insurance					
							EIP Holdings I, LLC	DE	NIA	Company	Ownership/Influence		MMLIC		
.0000							EIP Holdings I, LLC	DE	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Validus Pharmaceuticals LLC	DE	NIA	Company	Ownership/Influence	80,100	MMLIC		
							VGS Acquisition Holding, LLC	DE	NIA	MassMutual Holding LLC	Ownership/Influence		MMLIC		
0000							VGS Acquisition Holding, LLC	DE	NIA	Barings LLC	Management		MMLIC		
							Aland Royalty GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
0000							Alaska Future Fund GP. LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
							BAI GP, LLC	DE	NIA	Barings LLC	Ownership		MMLIC		
0000							BAI Funds SLP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
							Barings Alternative Investments SLP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
0000							Baring Asset-Based Income Fund (US) GP, LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
							Barings Global Investment Funds (U.S.)								
			04-1590850				Management LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
							Babson Global Loan Feeder Management, LLC	DE	NI A	Barings LLC	0wnership		MMLIC		
							Barings ABIF SLP, LLC	DE	NIA	Barings LLC	Ownership		MMLIC		
							Barings CLO Investment Partners GP, LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
							Barings Core Property Fund GP LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
							Barings Direct Lending GP Ltd.	CYM	NI A	Barings LLC	Ownership		MMLIC		
							Barings Global Energy Infrastructure			-					
							Advisors, LLC	DE	NI A	Barings LLC	Ownership				
							Barings Multi Asset Income Fund	HKG	NIA	Barings LLC	Management		MMLIC		
							Barings North American Private Loan Fund								
							Management, LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
0000							Barings Global Real Assets Fund GP, LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
0000							Barings/LAZ Parking Fund GP LLC	DE	NI A	Barings LLC	Ownership		_ MMLIC		
0000			98-0536233				Benton Street Advisors, Inc.	CYM	NI A	Barings LLC	Ownership		MMLIC		
0000							BRECS VII GP LLC	DE	NI A	Barings LLC	Ownership		_ MMLIC		
0000							CCM Fund I REIT Manager LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
0000							CEMF I GP LLC	DE	NI A	Barings LLC	Ownership		_ MMLIC		
							CHY Venture GP LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
0000							Cornerstone Hotel Fund GP, LLC	DE	NI A	Barings LLC	Ownership		_ MMLIC		
0000							CREF X GP LLC	DE	NIA	Barings LLC	Ownership		_ MMLIC		
0000							CREF VIII GP, LLC	DE	NI A	Barings LLC	Ownership		_ MMLIC		
			04-1590850				Great Lakes III GP, LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
0000							Lake Jackson LLC	DE	NI A	Barings LLC	Ownership				
0000			04-1590850				Loan Strategies Management LLC	DE	NI A	Barings LLC	Ownership		MMLIC		
0000			04-1590850				Mezzco LLC	DE DE	NI A	Barings LLC	Ownership		MMLIC		
			02-0767001				Mezzco II LLC	DE	NIA	Barings LLC	Ownership		MMLIC		
			41-2280126			1	Mezzco III LLC	DE	NIA	Barings LLC	Ownership		MMLIC		1

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						Name of Securities			Deletion					SCA	
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						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	2
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Éntity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
			80-0920285		-		Mezzco IV LLC	DE	NIA	Barings LLC	Ownership		MMLIC		
							Mezzco Australia II LLC		NIA	Barings LLC	Ownership	100.000	MMLIC		
0000							RECSA-NY GP LLC	DE	NIA	Barings LLC	Ownership	100.000	MMLIC		
			04-1590850				SBNP SIA II LLC		NIA	Barings LLC	Ownership.	100.000	MMLIC		
			01 1000000				Somerset Special Opportunities Management LLC								
			04-1590850						NIA	Barings LLC	Ownership		MMLIC		
			01 1000000							Massachusetts Mutual Life Insurance					
							Invesco Ltd.	BMU	NIA	Company	Ownership		MMLIC	v	
							Invesco Ltu.	DW0		Massachusetts Mutual Life Insurance	Uwher simp				
			04-3313782				MassMutual International LLC		NIA	Company	Ownership	100.000	MMLIC	v	
0000			0010702				MassMutual Solutions LLC		NIA	MassMutual International LLC	Ownership	100.000	MMLIC		
0000							HarborTech (Asia) Limited	HKG	NIA	MassMutual International LLC	Ownership	100.000	MMLIC		
							Yunfeng Financial Group Limited	HKG	NIA	MassMutual International LLC	Ownership				
							Tunneng Financial Gloup Limited		NIA	Massachusetts Mutual Life Insurance			mmLIV		
			04-2443240				MML Management Corporation	MA	NIA	Company	Ownership	100.000	MMLIC	v	1
			04-2443240				MML Management Corporation MassMutual International Holding MSC, Inc	MA	NIA NIA	MML Management Corporation	Ownership		MMLTC	···· ····· ¹ ·····	
			04-3341767				MassMutual Holding MSC, Inc	MA	NI A	MML Management Corporation	Ownership	100.000	MMLIC		
			04-1590850				MML Mezzanine Investor II. LLC	DE	NIA	Massachusetts Mutual Life Insurance	0	100.000	MMLIC		
			04-1090800				MML Mezzanine investor II, LLC		NIA	Company Massachusetts Mutual Life Insurance	Ownership		MMLIC		
0000			04 4500050					05			a 1.	100,000	188 10		
0000			04-1590850				MML Mezzanine Investor III, LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
0000			07 0570005					05		Massachusetts Mutual Life Insurance	a 1.	100,000	188 10		
0000			27-3576835				MassMutual External Benefits Group LLC	DE	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				100 w. 3rd Street LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
			~~ ~ ~ ~ ~ ~ ~ ~							Massachusetts Mutual Life Insurance					
0000			82-2432216				300 South Tryon Hotel LLC	DE	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				300 South Tryon LLC	DE	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
0000							Almack Mezzanine Fund I LP	GBR	NI A	Company	Ownership/Influence				
0000							Almack Mezzanine Fund I LP	GBR	NI A	C.M. Life Insurance Company	Ownership		MMLIC		
0000								000		Massachusetts Mutual Life Insurance		70.000	100		1
0000							Almack Mezzanine Fund II Unleveraged LP	GBR	NIA	Company	Ownership/Influence		MMLIC		
0000								000		Massachusetts Mutual Life Insurance			100		1
							Almack Mezzanine Fund III LP	GBR	NIA	Company	Ownership/Influence		MILIC		
							Almack Mezzanine Fund III LP	GBR	NI A	C.M. Life Insurance Company	Ownership				
0000							Almack Mezzanine Fund III LP	GBR	NI A	Barings (U.K.) Limitied	Management		MMLIC		
										Massachusetts Mutual Life Insurance				1	
			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NI A	Company	Ownership/Influence		MMLIC		
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NIA	C.M. Life Insurance Company	Ownership/Influence				
0000			36-4868350				Barings Asset-Based Income Fund (US) LP	DE	NI A	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Corporate Bond Fund			Massachusetts Mutual Life Insurance					1
0000								IRL	NI A	Company	Ownership/Influence		MMLIC		
							Barings Emerging Markets Corporate Bond Fund								1
0000								IRL	NI A	Barings LLC	Management		MMLIC		
							Babson Capital Global Special Situation	_		Massachusetts Mutual Life Insurance					1
0000			98-1206017				Credit Fund 2	DE	NI A	Company	Ownership/Influence		MMLIC		
							Babson Capital Global Special Situation								1
0000			98-1206017				Credit Fund 2	DE	NI A	C.M. Life Insurance Company	Ownership		MMLIC		
							Babson Capital Global Special Situation							1	
0000			98-1206017				Credit Fund 2	DE	NI A	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE	NIA	Company	Ownership/Influence	.75.800	MMLIC		

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filing	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	>
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000	citoup Mainto	0000	37-1506417	HOOD	0	international)	Babson Capital Loan Strategies Fund, L.P	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC	(1/14)	
0000			37-1506417				Babson Capital Loan Strategies Fund, L.P	DE		Barings LLC	Management		MMLIC		
			37-1300417				Dabson capital Loan Strategres Fund, L.F	UL		Massachusetts Mutual Life Insurance	management				
							Barings US High Yield Bond Fund	IRL	NIA	Company	Ownership/Influence	.61.900	MMLIC		
0000							Barings US High Yield Bond Fund	IRL	NIA	Barings LLC	Management		MMLIC		
0000							Babson CLO Ltd. 2013-1	CYM		Barings LLC			MMLIC		3
0000							Babson CLO Ltd. 2014-1	CYM		Barings LLC	Influence		MMLIC		2
0000							Babson CLO Ltd. 2015-1	CYM	NIA	Barings LLC	Influence		MMLIC		4
							Babson CLO Ltd. 2015-11	CYM		Barings LLC	Influence		MMLIC		5
							Babson CLO Ltd. 2016-1	CYM		Barings LLC	Influence		MILIC		····· v
0000							Babson CLO Ltd. 2016-11	CYM		Barings LLC	Influence		MMLIC		
							Barings CLO Ltd. 2017-1	CYM		Barings LLC	Influence		MMLIC		
							Barings CLO 2018-111	CYM		Barings LLC	Influence		MMLIC		
0000							Barings CLO 2018-111	CYM		Barings LLC	Influence		MMLIC		
0000							Barings CL0 2018-11 Barings CL0 2019-1	CYM		Barings LLC	Influence		MMLIC		
0000			98-1473665				Barings CLO 2019-11 Barings CLO 2019-11	CYM		Barings LLC	Influence		MMLIC		
0000			0000				Barings CLO 2019-111 Barings CLO 2019-111	CYM		Barings LLC	Influence		- MMLIC		
							Babson Euro CLO 2019-111 Babson Euro CLO 2014-1 BV			Barings LLC	Influence	-+	MMLIC		
0000							Babson Euro CLO 2014-11 BV			Barings LLC	Influence		- MMLIC		
							Babson Euro CLO 2014-11 BV	NLD		Barings LLC	Influence		MLIC		
0000							Babson Euro CLO 2015-1 BV	NLD		Barings LLC	Influence		- MMLIC		
							Dauson Lui V VLV 2010-1 DV		INI M	Massachusetts Mutual Life Insurance		-+	. mmLIV		
			81-0841854				Barings CLO Investment Partners LP	DE	NIA	Company	Ownership/Influence		MMLIC		
			81-0841854				Barings CLO Investment Partners LP			Barings LLC	Management		MMLIC		
			01 004 1004				Barings Real Estate European Value Add I SCSp	<i>U</i> L		Massachusetts Mutual Life Insurance					
0000							Daringo near Estate European varue AUU I Suop	GBR	NIA	Company	Ownership/Influence	56.100	MMLIC		
							Barings Real Estate European Value Add I SCSp								
0000							bar mgo moar Estato European varue Adu 1 doop	GBR	NIA	C.M. Life Insurance Company	Ownership	6.200	MMLIC		
							Barings Real Estate European Value Add I SCSp	india		stant Erro mouranos company					
0000							bar mgo moar Estato European varue Adu 1 doop	GBR	NIA	Barings LLC	Management		MMLIC		
0000			82-5330194				Barings Global Em. Markets Equity Fund	NC		Barings LLC	Management		MMLIC		
							Barings Global Energy Infrastructure Fund I			Massachusetts Mutual Life Insurance					
0000			98-1332384				LP	CYM	NIA	Company	Ownership/Influence	95,000	MMLIC		1
							Barings Global Energy Infrastructure Fund I								
			98-1332384				LP	CYM	NIA	Baring Asset Management Limited	Management		MMLIC		
0000							Barings Global Inv. Grade Strat Fund	IRL		Barings LLC	Management		MMLIC		
							• • • • • • • • • • • • • • • • • • • •			Massachusetts Mutual Life Insurance					
							Barings Global Private Loan Fund	LUX	NIA	Company	Ownership/Influence	.12.300	MMLIC		
							Barings Global Private Loan Fund	LUX		Barings LLC	Management		MMLIC		
							· · · · · · · · · · · · · · · · · · ·			Massachusetts Mutual Life Insurance					
			82-3867745				Barings Global Real Assets Fund LP	DE	NIA	Company	Ownership/Influence	40.900	MMLIC		
			82-3867745				Barings Global Real Assets Fund LP	DE	NI A	C.M. Life Insurance Company	Ownership.		MMLIC		
			82-3867745				Barings Global Real Assets Fund LP	DE		Barings LLC	Management		MMLIC		
							Barings Global Special Situations Credit Fund			Massachusetts Mutual Life Insurance					
							3	IRL	NIA	Company	Ownership/Influence				
							Barings Global Special Situations Credit Fund								
							3	IRL	NIA	Barings LLC	Management		MMLIC		
							Barings Middle Market CLO 2017-I Ltd & LLC	CYM	NI A	Barings LLC	Influence		MMLIC		
							Barings Middle Market CLO 2018-1	CYM		Barings LLC	Influence				
							-			Massachusetts Mutual Life Insurance					
			38-4010344				Barings North American Private Loan Fund LP _	DE	NIA	Company	Ownership/Influence		MMLIC		
			38-4010344				Barings North American Private Loan Fund LP	DE	NI A	Baring Asset Management Limited	Management		MMLIC		
							• · · · · · · · · · · · · · · · · · · ·			Massachusetts Mutual Life Insurance	-				
			98-1332384				Barings RE Credit Strategies VII LP	DE	NIA	Company	Ownership/Influence	34.700	MMLIC		

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Group		Company	ID	Federal	0.11/	(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	•
			98-1332384				Barings RE Credit Strategies VII LP	DE	NI A	Baring Asset Management Limited	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
			26-4142796				Baring International Small Cap Equity Fund	DE	NIA	Company	Ownership/Influence				
			26-4142796				Baring International Small Cap Equity Fund	DE	NI A	Baring Asset Management Limited	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
							Braemar Energy Ventures I, L.P.	DE	NI A	Company	Ownership/Influence		MMLIC		
							Braemar Energy Ventures I, L.P.	DE	NI A	C.M. Life Insurance Company	Ownership	1.300	MMLIC		
							Braemar Energy Ventures I, L.P.	DE	NIA	Barings LLC	Management		MMLIC		
0000							Barings European Core Property Fund SCSp	LUX	NIA	MassMutual Holding LLC	Ownership/Influence	12.800	MMLIC		
							Barings European Core Property Fund SCSp	LUX		C.M. Life Insurance Company	Ownership.	0.000	MMLIC		
							Barings European Core Property Fund SCSp	LUX		Barings Real Estate Advisers LLC	Management.		MMLIC		
			38-4059932				Benchmark 2018–B2 Mortgage Trust	LUX		Barings LLC	Influence		MMLIC		
0000			00 TOUGGOL				Benchmark 2018–B2 molitigage ridst	NY		Barings LLC	Influence		MMLIC		
			38-4096530				Benchmark 2018–84	NY		Barings LLC	Influence		MMLIC		
			38-4096530 04-1590850				Braselton Point LLC			Barings LLC Barings LLC	Ownership	100.000	MMLTC		
0000			04-1090850				Draseiton Point LLC	VE	NI A	Barings LLC Massachusetts Mutual Life Insurance	uwnersnip		. NMLIU		
								_							
			36-4770946				Cornerstone High Yield Venture LP	DE	NI A	Company	Ownership/Influence		MMLIC		
			36-4770946				Cornerstone High Yield Venture LP	DE	NI A	Barings Real Estate Advisers LLC	_ Management		MMLIC		
0000			20-5578089				Barings Core Property Fund LP	DE	NI A	MassMutual Holding LLC	Ownership/Influence		MMLIC		
0000			20-5578089				Barings Core Property Fund LP	DE	NIA	Barings Real Estate Advisers LLC	_ Management		MMLIC		
										Massachusetts Mutual Life Insurance					
			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Company	Ownership/Influence		MMLIC		
			46-5432619				Cornerstone Real Estate Fund X LP	DE	NI A	C.M. Life Insurance Company	Ownership		MMLIC		
0000			46-5432619				Cornerstone Real Estate Fund X LP	DE	NIA	Barings Real Estate Advisers LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			35-2531693				Cornerstone Permanent Mortgage Fund III LLC _	MA	NIA	Company	Ownership/Influence	100.000	MMLIC		
			2001000				control of tone i of manorite mortigage i and i i i EEO			Massachusetts Mutual Life Insurance					
0000			46-5437441				Barings/LAZ Parking Fund LP	DE	NIA	Company	Ownership/Influence		MMLIC		
0000			46-5437441				Barings/LAZ Parking Fund LP	DE		Barings Real Estate Advisers LLC	Management		MMLIC		
			40-040/441				Dai mys/LAZ Faiking Funu LF	UE	NIA	Massachusetts Mutual Life Insurance	. Mallagement.		MMLIC		
0000			00.0001105		0001507511		Outrony Names in Depterory 11 1D	DE	ALL A		O marki (laflaanse	05 500	10.0		
			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	Company	Ownership/Influence		MMLIC		
			90-0991195		0001597511		Gateway Mezzanine Partners II LP	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC		
			90-0991195				Gateway Mezzanine Partners II LP	DE	NIA	Barings LLC	Management		MMLIC		
								-		Massachusetts Mutual Life Insurance					
			37-1708623				Great Lakes III, L.P.	DE	NIA	Company	Ownership/Influence		MMLIC		
			37-1708623				Great Lakes III, L.P	DE	NIA	Barings LLC	Management		MMLIC		
							JPMCC Commercial Mortgage Securities Trust								
			38-4041011				2017–JP7	NY	NI A	Barings LLC	Influence		MMLIC		
							JPMDB Commercial Mortgage Securities Trust								1
0000			38-4032059				2017-C5	NY	NI A	Barings LLC	Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
			82-1512591				KKR-MM Vector LP	DE	NI A	Company	Ownership/Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
			46-4255307				Marco Hotel LLC		NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					T
			04-1590850				Miami Douglas One GP LLC	DE	NIA	Company	Ownership		MMLIC		
0000			04-1590850				Miami Douglas One GP LLC		NIA	C.M. Life Insurance Company	Ownership		MMLIC		
							miami buugias viie vi LLU			Massachusetts Mutual Life Insurance					
0000			45-3623262				HB Naples Golf Owner LLC	DE	NIA		Ownership	100.000	MMLIC		
			40-3023202				no wapies colt uwner LLC		NIA	Company	uwnersnip		MMLIC		
0000			04 0000400					25		Massachusetts Mutual Life Insurance		100,000			
			81-3000420				MM Debt Participations LLC	DE	NIA	Company	Ownership/Influence		MMLIC		
			81-3000420				MM Debt Participations LLC	DE	NI A	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			82-4411267		1	1	RB Apartments LLC	DF	NIA	Company	Ownership	100.000	MMLIC		

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						hange		Domi-	ship		Management,	ship		Filing	
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Group		Company	ID	Federal	(U.:	Ś. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	•
Code	Group Name	Code	Number	RSSD		ational)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000	aroop Hamo	0000				allonaly			2.1.1.9	Massachusetts Mutual Life Insurance	Callery	lage		(.,)	
0000			75-2901061				Beston Arboretum LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
0000			75-2301001				Rockall CLO B.V.	GBR		Barings LLC	Influence		MMLIC		
							NOCKATT OLO D.V.	UDI1		Massachusetts Mutual Life Insurance	11111uence				
0000			54-2055778				Bockville Town Center LLC	VA	NIA	Company	Ownership	100.000	MMLIC		
			34-2033778				NUCKVITTE TOWIT CENTER LLC	VA		Massachusetts Mutual Life Insurance	ownership				
0000			20-8856877				Somerset Special Opportunities Fund L.P.	DE	NIA		Ownership/Influence	59,000	MMLIC		
0000			20-8856877						NIA NIA	Company C.M. Life Insurance Company		2.900	MMLIC		
			20-88568//				Somerset Special Opportunities Fund L.P	DE	NIA		Ownership				
										Massachusetts Mutual Life Insurance					
0000			35-2553915				Ten Fan Pier Boulevard LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
0000			30-0336246				Tower Square Capital Partners II, L.P	DE	NI A	Company	Ownership/Influence		MMLIC		
0000			30-0336246				Tower Square Capital Partners II, L.P	DE	NI A	C.M. Life Insurance Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			32-0160190				Tower Square Capital Partners II-A, L.P	DE	NI A	Company	Ownership/Influence				
			41-2280127				Tower Square Capital Partners III, L.P	DE	NIA	Barings LLC	Management		MMLIC		
			41-2280127				Tower Square Capital Partners III, L.P	DE	NI A	MassMutual Holding LLC	Ownership/Influence		MMLIC		
										Massachusetts Mutual Life Insurance					
			41-2280129				Tower Square Capital Partners IIIA, L.P	DE	NI A	Company	Ownership/Influence	95.000			
0000			41-2280129				Tower Square Capital Partners IIIA, L.P.	DE		Barings LLC	Management		MMLIC		
			11 2200 120				Tower equate capital fullions find, E.F.			Massachusetts Mutual Life Insurance	management				
0000			80-0920367				Tower Square Capital Partners IV-A, L.P	DE	NIA	Company	Ownership/Influence	21,300	MMLIC		
			00-0320307				Tower Square capital faithers IV-A, E.I	UL		Massachusetts Mutual Life Insurance	ownership/initidence				
0000			04-1590850				Trailside MM Member LLC	DE	NIA	Company	Ownership.	59,600	MMLIC		
0000			04-1590850				Trailside MM Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC		
			04-1090600				Trafisioe www.wember LLC	VE	NIA	Massachusetts Mutual Life Insurance	Owner snip				
0000			00 4005704					DE			a 1:	00.000	188.10		
0000			83-1325764 83-1325764				Washington Gateway Two LLC		NIA NIA	Company C.M. Life Insurance Company	Ownership		MMLIC		
			83-1325/64				Washington Gateway Two LLC		NIA		Ownership	6.700	MMLIC		
										Massachusetts Mutual Life Insurance		~ ~ ~ ~			
0000			32-0574045				Washington Gateway Three LLC	DE	NI A	Company	Ownership		MLIC		
			32-0574045				Washington Gateway Three LLC	DE	NI A	C.M. Life Insurance Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
0000			04-1590850				West 46th Street Hotel LLC	DE	NI A	Company	Ownership		MMLIC		
							Barings Emerging Markets Debt Short Duration								1
0000							Fund	IRL	NI A	Barings LLC	Management		MMLIC		
							Barings Emerging Markets Sovereign Debt Fund								1
0000								IRL	NI A	Barings LLC	Management		MMLIC		
							Babson Capital Loan Strategies Master Fund LP								
0000								CYM	NI A	Barings LLC	Management		MMLIC		
			47-3790192				Barings Global High Yield Fund	MA	NI A	Barings LLC	Management		MMLIC		
0000			47-3734770				Barings Total Return Bond Fund	MA	NIA	Barings LLC	Management		MMLIC		
			47-3801860				Barings U.S. High Yield Fund	MA	NIA	Barings LLC	Management		MMLIC		
										Massachusetts Mutual Life Insurance	······································	Τ			1
			71-1018134				Great Lakes II LLC	DE	NIA	Company	Ownership		MMLIC		
			71-1018134				Great Lakes II LLC	DE		C.M. Life Insurance Company	Ownership	1.000			
							Grout Lando IT LEV			Massachusetts Mutual Life Insurance	owner enrip				
0000			04-1590850				Wood Creek Venture Fund LLC	DE	NIA	Company	Ownership.	40.000	MMLIC		1
			04-1090000				NUOU OFEEK VEITUIE FUIIO LLO			Massachusetts Mutual Life Insurance	owner anth				
0000			00 4000017				F0 Liberty LLO		NIA		0	50, 100	100		
			36-4823011				50 Liberty LLC	DE		Company	Ownership				
0000			36-4823011				50 Liberty LLC	DE	NI A	C.M. Life Insurance Company	Ownership	5.800	MMLIC		
										Massachusetts Mutual Life Insurance	L				1
			80-0948028				One Harbor Shore LLC	DE	NI A	Company	Ownership		MMLIC		
			80-0948028			<u></u>	One Harbor Shore LLC	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC		

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Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
	·					•				Massachusetts Mutual Life Insurance					
			81-4382111				Budapester Strasse LLC	DE	NI A	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
			82-2285211				Calgary Railway Holding LLC	DE	NIA	Company	Ownership	90.000	MMLIC		
			82-2285211				Calgary Railway Holding LLC	DE	NI A	C.M. Life Insurance Company	Ownership	10.000	MMLIC		
										Massachusetts Mutual Life Insurance					
			82-3307907				Cornbrook PRS Holdings LLC	DE	NI A.	Company	Ownership	100.000	MMLIC		
							Ŭ			Massachusetts Mutual Life Insurance					
			95-4207717				Cornerstone California Mortgage Fund LLC	CA	NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance					
			95-4207717				Cornerstone California Mortgage Fund II LLC _	CA	NI A	Company	Ownership	100.000	MMLIC		<u> </u>
							Cornerstone California Mortgage Fund III LLC			Massachusetts Mutual Life Insurance	· · · · · · · · · · · · · · · · · · ·				
			95-4207717					CA	NIA	Company	Ownership	100.000	MMLIC		I
										Massachusetts Mutual Life Insurance					
			56-2630592				Cornerstone Fort Pierce Development LLC	DE	NIA	Company	Ownership	84.400	MMLIC		
0000			56-2630592				Cornerstone Fort Pierce Development LLC	DE DE	NIA	C.M. Life Insurance Company	Ownership.	5.600	MMLIC		
										Massachusetts Mutual Life Insurance					
			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Company	Ownership	98.700	MMLIC		
0000			45-2632610				Cornerstone Permanent Mortgage Fund	MA	NIA	Barings LLC	Management		MMLIC		
			10 2002010 111				control o control o contration can caugo cana			Massachusetts Mutual Life Insurance					
			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Company	Ownership		MMLIC		
0000			61-1750537				Cornerstone Permanent Mortgage Fund II	MA	NIA	Barings LLC	Management		MMLIC		
							control o control o contractoric mor tigago i and i i			Massachusetts Mutual Life Insurance					
			61-1793735				Cornerstone Permanent Mortgage Fund IV	MA	NIA	Company	Ownership	100.000	MMLIC		
			81-0890084				CREA Madison Member LLC	DE	NIA	C.M. Life Insurance Company	Ownership	90.000	MMLIC		
			01 0000004					UL		Massachusetts Mutual Life Insurance	owner amp				
			82-1563809				CCB Montford Park LLC	DE	NIA	Company	Ownership		MMLIC		
0000			82-1563809				CCB Montford Park LLC		NIA	C.M. Life Insurance Company	Ownership	6.000	MMLIC		
			02 1000000					<i>DL</i>		Massachusetts Mutual Life Insurance	owner amp	0.000			
0000			82-2783393				Danville Riverwalk Venture, LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			02 2700000				banvirre inversarie venture, EEO	<i>UL</i>		Massachusetts Mutual Life Insurance	owner amp				
			20-3347091				Fan Pier Development LLC	DE	NIA	Company	Ownership	60.000	MMLIC		
			20-3347091				Fan Pier Development LLC		NIA	C.M. Life Insurance Company	Ownership	5.000	MMLIC		
			20 0041001							Massachusetts Mutual Life Insurance	owner en /p				
			46-3880526				Farringdon London Holdings LLC	DE	NIA	Company	Ownership		MMLIC	1	1
			46-3880526				Farringdon London Holdings LLC	DE	NIA	C.M. Life Insurance Company	Ownership	5.500	MMLIC		
										Massachusetts Mutual Life Insurance			·		1
			81-5360103				Landmark Manchester Holdings LLC		NIA	Company	Ownership	_100.000	MMLIC	1	
							Landard manonocor norunigo LLO			Massachusetts Mutual Life Insurance	o more on p				1
			04-1590850				MM Island Member LLC	DE	NIA	Company	Ownership	.49.000	MMLIC		
										Massachusetts Mutual Life Insurance	owner en /p				1
			83-0881588				NoHo West Venture LLC	DE	NIA	Company	Ownership	.95.000	MMLIC	1	1
			00 000 1000					UL		Massachusetts Mutual Life Insurance	owner amp				
			04-1590850				PACO France Logistics LLC	DE	NIA	Company	Ownership	_100.000	MMLIC	1	1
			- 100000				1 NOU 1 1 MINU LUGISTIUS LLU	UL		Massachusetts Mutual Life Insurance	owner an p			-	1
			04-1590850				PACO France Logistics 2 LLC	DE	NIA	Company	Ownership	_100.000	MMLIC		
			- 100000				1 NOV 1 1 41100 LUGISTICS 2 LLU	UL		Massachusetts Mutual Life Insurance	owner antp				
			04-1590850				PACO France Logistics 3 LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			04-1090000				THOU FEATURE LOUISTICS & LLC		INT A	Massachusetts Mutual Life Insurance	ominer 200 h		. mmLIV		
			82-3393166				Portland 400 Sixth Manager LLC	DE	NIA		Ownership		MMLIC	1	1
			02-3333 100				Salomon Brothers Commercial Mortgage Trust		NIA	Company	ownersnip				
0000							2001-MM	DE	NIA	Paringo Pool Estato Advisore LLC	Influence		MMLIC	1	
							2001-11111	UE	NIA	Barings Real Estate Advisers LLC Massachusetts Mutual Life Insurance	Ini i uence	+	NMLIU		
0000			27-2977720				Commence Williams Character Control 110	DE	NUA		Oursenship	04 000	MMLIC	1	1
			21-2911120				Sawgrass Village Shopping Center LLC		NI A	Company	Ownership				

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						Name of Securities			Relation-		Board,	Owner-		SCA	
						Exchange		Domi-	ship		Management,	ship		Filina	
		NAIC				if Publicly Traded	Names of	ciliary	to		Attorney-in-Fact,	Provide		Re-	
Group		Company	ID	Federal		(U.S. or	Parent, Subsidiaries	Loca-	Reporting	Directly Controlled by	Influence,	Percen-	Ultimate Controlling	quired?	
Code	Group Name	Code	Number	RSSD	CIK	International)	Or Affiliates	tion	Entity	(Name of Entity/Person)	Other)	tage	Entity(ies)/Person(s)	(Y/N)	*
0000	Cloup Name	Oute	27-2977720	HOOD		international)	Sawgrass Village Shopping Center LLC		NIA	C.M. Life Insurance Company	Ownership		MMLIC	(1/18)	
			21-2311120				Saligiass viriage shopping center LLC			Massachusetts Mutual Life Insurance	ownership		. mmL10		
0000			04-1590850				Spain Avalon Holding LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			04 1000000							Massachusetts Mutual Life Insurance	owner amp				
			81-5273574				Three PW Office Holding LLC	DE	NIA	Company	Ownership		MMLIC		
			01 02/00/1							Massachusetts Mutual Life Insurance	owner ownp	00.000			
0000			35-2484550				Twenty Two Liberty LLC	MA	NIA	Company	Ownership	65,000	MMLIC		
			35-2484550				Twenty Two Liberty LLC		NIA	C.M. Life Insurance Company	Ownership	35.000			
			00 2101000							Massachusetts Mutual Life Insurance	owner ownp				
. 0000			45-4606547				UK LIW Manager LLC	DE	NIA	Company	Ownership	100.000	MMLIC		
			10 1000011				or Ern munugor EEO			Massachusetts Mutual Life Insurance	owner ownp				
0000			45-4606547				UK LIW Member LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
			10 1000011							Massachusetts Mutual Life Insurance	owner ownp				
			82-3250684				Unna, Dortmund Holding LLC	DE	NIA	Company	Ownership		MMLIC		
			02 020000				onna, oortmana norarng 220			Massachusetts Mutual Life Insurance	6 million 6 million				
0000			82-3281588				Via Ceresio Milan LLC	DE	NIA	Company	Ownership.	100.000	MMLIC		
			02 0201000							Massachusetts Mutual Life Insurance	6 million 6 million				
			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	Company	Ownership.		MMLIC		
			45-5401109				Washington Gateway Apartments Venture LLC	DE	NIA	C.M. Life Insurance Company	Ownership		MMLIC		
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			47-1993493				Waterloo London Holdings LLC		NIA	Company	Ownership	100.000	MMLIC		
										Massachusetts Mutual Life Insurance	o milor on ip				
			20-5481477				Ygnatio Valley Funding	DE	NIA	Company	Ownership	90,000	MMLIC		
							· · · · · · · · · · · · · · · · · · ·			Massachusetts Mutual Life Insurance					
			45-3168892				MassMutual Barings Dynamic Allocation Fund		NIA	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			51-0529328		0000927972	0Q	MassMutual Premier Main Street Fund		NIA	Company	Ownership		MMLIC		
							MassMutual Premier Strategic Emerging Marke	ts		Massachusetts Mutual Life Insurance					
			26-3229251		0000927972	0Q	Fund	MA	NI A	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			04-3277550		0000927972	0Q	MassMutual Premier Value Fund	MA	NI A	Company	Ownership		MMLIC		
							MassMutual Select Diversified International			Massachusetts Mutual Life Insurance					
			14-1980900		0000916053	0Q	Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
										Massachusetts Mutual Life Insurance	· · · · · · · · · · · · · · · · · · ·				
			01-0821120		0000916053	0Q	MassMutual Select Diversified Value Fund	MA	NIA	Company	Ownership	1.300	MMLIC		
				1	1					Massachusetts Mutual Life Insurance					
			04-3512593		0000916053	0Q	MassMutual Select Fundamental Growth Fund	MA	NIA	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			04-3513019		0000916053	0Q	MassMutual Select Large Cap Value Fund	MA	NIA	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			42-1710935		0000916053	0Q	MassMutual Select Mid-Cap Value Fund	MA	NIA	Company	Ownership				
							MassMutual Select Small Capital Value Equit	у		Massachusetts Mutual Life Insurance					
			02-0769954		0000916053	0Q	Fund	MA	NIA	Company	Ownership		MMLIC		
										Massachusetts Mutual Life Insurance					
			04-3584140		0000916053	0Q	MassMutual Select Small Company Value Fund	MA	NIA	Company	Ownership				
							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			82-3347422		0000916053	0Q	2005 Fund	MA	NIA	Company	Ownership	6.800	MMLIC		
1							MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance	1				
0000			82-3355639		0000916053	0Q	2010 Fund	MA	NIA	Company	Ownership	0.000	MMLIC		
				1	1		MassMutual Select T. Rowe Price Retirement			Massachusetts Mutual Life Insurance					
0000			82-3382389		0000916053	0Q	2015 Fund	MA	NI A	Company	Ownership	0.000	MMLIC		
1				1	0000916053		MassMutual Select T. Rowe Price Retirement 2020 Fund			Massachusetts Mutual Life Insurance			MILIC		
			82-3396442					MA	NIA	Company	Ownership				

SCHEDULE Y PART 1A - DETAIL OF INSURANCE HOLDING COMPANY SYSTEM

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0000 00000 00000000 000000000000000000000000000000000000	Code	Group Name	Code	Number	R22D	CIK	International)		tion	Entity		Other)	tage	Entity(les)/Person(s)	(Y/N)	
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LODO 47-3659064 Massibutual RetireSIMRT 2015 Fund MA NIA Company Ourership J97.200 MLIC MLIC 0000 27-1933828 0000916053.00 0 Massibutual RetireSIMRT 2015 Fund MA NIA Company Ourership D000 MLIC				47-3544629				MML Series II Equity Rotation Fund	MA	NIA		Ownership				
	0000			47-3559064				MML Series II Special Situations Fund	MA	NIA		Ownership		MMLIC		
				27-1933828		0000916053	0Q	MassMutual RetireSMART 2015 Fund	MA	NIA		Ownership		MMLIC		
LD000 27-1932769 0000916053 00 MassMutual RetireSMART 2045 Fund IMA NIA Company Ownership 12.300 Mull IC 0000 46-3289207 0000916053 00 MassMutual RetireSMART 2055 Fund IMA NIA Company Ownership 35.500 Mull IC ImassMutual RetireSMART 2060 Fund				27-1933389		0000916053	0Q	MassMutual RetireSMART 2035 Fund	MA	NIA		Ownership		MMLIC		
.0000 .0000 .000916053 00 MassMutual RetireSMART 2055 Fund .MA .NIA Company .0000 .0000-0 .0000916053 00 .0000 MassMutual RetireSMART 2055 Fund .MA .NIA Company .0000-0 .0000916053 .0000916053 00 .0000916053 00 .0000916053 .000											Massachusetts Mutual Life Insurance					
				27-1932769		0000916053	0Q	MassMutual RetireSMART 2045 Fund	MA	NI A	Company	Ownership				
											Massachusetts Mutual Life Insurance					
				46-3289207		0000916053	0Q	MassMutual RetireSMART 2055 Fund	MA	NIA	Company	Ownership	35.500	MMLIC		
LOUD LOUD LOUD LOUD LOUD LOUD LOUD LOUD											Massachusetts Mutual Life Insurance					
				47-5326235		0000916053	0Q	MassMutual RetireSMART 2060 Fund	MA	NIA	Company	Ownership		MMLIC		
											Massachusetts Mutual Life Insurance					
	0000			45-1618155		0000916053	00	MassMutual RetireSMART Conservative Fund	MA	NIA		Ownership	0.000	MMLIC		
																1
	0000			45-1618222		0000916053	00	MassMutual BetireSMART Growth Fund	MA	NIA		Ownership	0 000	MMLIC		
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2	Debt investors own .6% and includes only Great Lakes III, L.P.
3	Debt investors own 9.6% and includes only Babson Capital Loan Strategies Fund, L.P.
4	Debt investors own .5% and includes only Great Lakes III, L.P.
5	Debt investors own .2% and includes only Great Lakes III, L.P.

SUPPLEMENTAL EXHIBITS AND SCHEDULES INTERROGATORIES

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

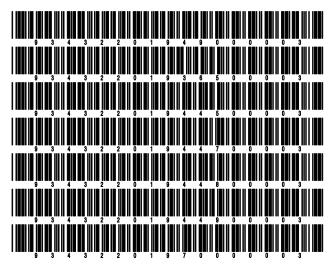
		Response
1.	Will the Trusteed Surplus Statement be filed with the state of domicile and the NAIC with this statement?	NO
2.	Will the Medicare Part D Coverage Supplement be filed with the state of domicile and the NAIC with this statement?	NO
3.	Will the Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	NO
4.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXV be filed with the state of domicile and electronically with the NAIC?	YES
5.	Will the Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI be filed with the state of domicile and electronically with the NAIC?	NO
6.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Average Market Value) be filed with the state of domicile and electronically with the NAIC?	NO
7.	Will the Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) be filed with the state of domicile and electronically with the NAIC?	NO
8.	Will the Life PBR Statement of Exemption be filed with the state of domicile by July 1st and electronically with the NAIC with the second quarterly filing per the Valuation Manual (by August 15)? (2nd Quarter Only) The response for 1st and 3rd quarters should be N/A. A NO response resulting with a bar code is only appropriate in the 2nd quarter.	NO

Explanation:

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

Bar Code:

- 1. Trusteed Surplus Statement [Document Identifier 490]
- 2. Medicare Part D Coverage Supplement [Document Identifier 365]
- Reasonableness of Assumptions Certification required by Actuarial Guideline XXXV [Document Identifier 445]
- Reasonableness of Assumptions Certification for Implied Guaranteed Rate Method required by Actuarial Guideline XXXVI [Document Identifier 447]
- 6. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI [Document Identifier 448]
- 7. Reasonableness and Consistency of Assumptions Certification required by Actuarial Guideline XXXVI (Updated Market Value) [Document Identifier 449]
- 8. Life PBR Statement of Exemption (2nd Quarter Only) [Document Identifier 700]



STATEMENT AS OF SEPTEMBER 30, 2019 OF THE C.M. Life Insurance Company OVERFLOW PAGE FOR WRITE-INS

Additior	Additional Write-ins for Liabilities Line 25					
		1	2			
		Current	December 31			
		Statement Date	Prior Year			
2504.	Repurchase agreements					
2597.	Summary of remaining write-ins for Line 25 from overflow page	627,766	234,404,238			

SCHEDULE A - VERIFICATION Real Estate

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 7. Deduct current year's other than temporary impair ent new zed 8. Deduct current year's depreciation 9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) 10. Deduct total nonadmitted amounts				
Year to Date December 3 1. Book/adjusted carrying value, December 31 of prior year			1	2
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 7. Deduct current year's other than temporary impair ent new zed 8. Deduct current year's depreciation 9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) 10. Deduct total nonadmitted amounts				
2. Cost of acquired: 2.1 Actual cost at time of acquisition 2.2 Additional investment made after 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 4. Total foreign exchange change in book/adjusted 6. Total foreign exchange change in book/adjusted 7. Deduct current year's other than temporary impailent in the zed 8. Deduct current year's depreciation 9. Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) 10. Deduct total nonadmitted amounts 4. Total nonadmitted amounts			Year to Date	December 31
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 7. Deduct current year's other than temporary impairent non-zea 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	1.	Book/adjusted carrying value, December 31 of prior year		
2.2 Additional investment made after acquisition Current year change in encumbrances Total gain (loss) on disposals Deduct amounts received on disposals Deduct amounts received on disposals Deduct current year's other than temporary impairent received Deduct current year's depreciation Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) Deduct total nonadmitted amounts	2.	Cost of acquired:		
 Current year change in encumbrances Total gain (loss) on disposals Deduct amounts received on disposals Total foreign exchange change in book/adjusted pyilova Deduct current year's other than temporary impairent non zero Deduct current year's depreciation Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) Deduct total nonadmitted amounts 		2.1 Actual cost at time of acquisition		
 4. Total gain (loss) on disposals 5. Deduct amounts received on disposals 6. Total foreign exchange change in book/adjusted 7. Deduct current year's other than temporary impairment received 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 		2.2 Additional investment made after acquisition		
 5. Deduct amounts received on disposals	3.	Current year change in encumbrances		
 6. Total foreign exchange change in book/adjusted anying a second seco	4.	Total gain (loss) on disposals		
 Deduct current year's other than temporary impairment refer zeconomic and the provide the	5.	Deduct amounts received on disposals		
 8. Deduct current year's depreciation	6.	Total foreign exchange change in book/adjusted yill ya		
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	7.	Deduct current year's other than temporary impair ent received and zear		
10. Deduct total nonadmitted amounts	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)		
11 Statement value at end of current period (I ine 9 minus I ine 10)	10.	Deduct total nonadmitted amounts		
11. Otatomolit valuo at one of outont police (Eno of mildo Eno 10)	11.	Statement value at end of current period (Line 9 minus Line 10)		

SCHEDULE B - VERIFICATION

		1	2
			Prior Year Ended
		Year to Date	December 31
1.	Book value/recorded investment excluding accrued interest, December 31 of prior year		
2.	Cost of acquired:		
	2.1 Actual cost at time of acquisition		
	2.2 Additional investment made after acquisition Capitalized deferred interest and other Accrual of discount	8,805,211	
3.	Capitalized deferred interest and other		1,094,525
4.	Accrual of discount		
5.	Unrealized valuation increase (decrease)		
6.	Unrealized valuation increase (decrease)	(97,871)	(1,091,381)
7.	Deduct amounts received on disposals		
8.	Deduct amortization of premium and mortgage interest points and commitment fees		(4,245)
9.	Total foreign exchange change in book value/recorded investment excluding accrued interest	(1,871,399)	(3,584,527)
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)		
12.	Total valuation allowance		
13.	Subtotal (Line 11 plus Line 12)		
14.	Deduct total nonadmitted amounts		
15.	Statement value at end of current period (Line 13 minus Line 14)	938,035,699	921,272,354

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	3,790,718	11,678,617
	2.2 Additional investment made after acquisition		
3.	Capitalized deferred interest and other		
4.	Accrual of discount		
5.	Unrealized valuation increase (decrease)	7, 190, 767	
6.	Total gain (loss) on disposals		(173,884)
7.	Deduct amounts received on disposals		
8.	Deduct amortization of premium and depreciation		11,047
9.	Total foreign exchange change in book/adjusted carrying value	(914,265)	
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)	165,739,895	168,061,459

SCHEDULE D - VERIFICATION

Bonds and Stocks 1 2 Prior Year Ended Year to Date December 31 4,418,143,411 4,466,803,023 Book/adjusted carrying value of bonds and stocks, December 31 of prior year . 1. 586,342,388 776,416,846 2. Cost of bonds and stocks acquired .2,844,968 ...5,365,453 3. Accrual of discount .13,586,138 11,680,556 Unrealized valuation increase (decrease) 4. ...1,518,159 ...3,765,909 5. Total gain (loss) on disposals 749,522,064 .812,732,712 Deduct consideration for bonds and stocks disposed of 6. ...1,440,613 ...2,677,184 7. Deduct amortization of premium ..(17,253,840) (27,984,078) Total foreign exchange change in book/adjusted carrying value . 8. ...9,319,4226, 156, 799 9. Deduct current year's other than temporary impairment recognized .5,112,398 .3,662,397 Total investment income recognized as a result of prepayment penalties and/or acceleration fees 10. .4,250,011,523 4,418,143,411 Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10) 11. 12. Deduct total nonadmitted amounts 4,250,011,523 4,418,143,411 13. Statement value at end of current period (Line 11 minus Line 12)

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

	1	2 2	3	4	5	6	7	8
	Book/Adjusted	A	D:		Book/Adjusted	Book/Adjusted	Book/Adjusted	Book/Adjusted
	Carrying Value Beginning	Acquisitions During	Dispositions During	Non-Trading Activity During	Carrying Value End of	Carrying Value End of	Carrying Value End of	Carrying Value December 31
NAIC Designation	of Current Quarter	Current Quarter	Current Quarter	Current Quarter	First Quarter	Second Quarter	Third Quarter	Prior Year
BONDS								
1. NAIC 1 (a)						1,996,503,127	1,785,654,202	
2. NAIC 2 (a)	1,695,335,307		1,295,286,886	(2,227,131)	1,755,947,941	1,695,335,307	1,881,593,271	
3. NAIC 3 (a)	120,918,718			2,389,488	113,770,057	120,918,718		123,271,777
4. NAIC 4 (a)	302,043,720	27.167.946	63,590,913	(15,477,578)	109,916,994	302,043,720		
5. NAIC 5 (a)		827.982	12.112.968	4.329.871	176,223,007	160,948,129		
6. NAIC 6 (a)	32,794,250	168.305	1,848,295	(2,033,798)	22,456,196	32,794,250	29,080,462	22,348,789
	4,308,543,251	1,533,512,944	1,618,236,684	(12,300,152)	4,374,402,914	4,308,543,251	4,211,519,359	4,389,321,786
7. Total Bonds	4,000,040,201	1,000,012,044	1,010,230,004	(12,300,132)	4,374,402,914	4,000,040,201	4,211,319,339	4,309,321,700
PREFERRED STOCK								
8. NAIC 1					2,950,000	2,950,000	2,950,000	2,950,000
9. NAIC 2							8,336,476	
10. NAIC 3				(17,529)				
11. NAIC 4				(54,910)				
12. NAIC 5					2,514,886		2,618,518	
13. NAIC 6	82,296					82,296	82,296	
14. Total Preferred Stock	26,964,433	862,842	135,575	25,087	26,502,638	26,964,433	27,716,787	26,431,077
15. Total Bonds and Preferred Stock	4,335,507,684	1,534,375,786	1,618,372,259	(12,275,065)	4,400,905,552	4,335,507,684	4,239,236,146	4,415,752,863

(a) Book/Adjusted Carrying Value column for the end of the current reporting period includes the following amount of short-term and cash equivalent bonds by NAIC designation:

SCHEDULE DA - PART 1

	Short-Term Investments				
	1	2	3	4	5 Delid for
	Book/Adjusted Carrying Value	Par Value	Actual Cost	Interest Collected Year-to-Date	Paid for Accrued Interest Year-to-Date
9199999 Totals	86,379,348	XXX	85,994,938		

SCHEDULE DA - VERIFICATION Short-Term Investments

		1	2
		Year To Date	Prior Year Ended December 31
1.	Book/adjusted carrying value, December 31 of prior year		4,973,791
2.	Cost of short-term investments acquired		
3.	Accrual of discount	1,517,669	
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals		(368)
6.	Deduct consideration received on disposals		
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)		
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	86,379,348	62,424,277

SCHEDULE DB - PART A - VERIFICATION

Options, Caps, Floors, Collars, Swaps and Forwards

1.	Book/Adjusted Carrying Value, December 31, prior year (Line 9, prior year)	(81,438,553)
2.	Cost Paid/(Consideration Received) on additions	4,504,247
3.	Unrealized Valuation increase/(decrease)	
4.	Total gain (loss) on termination recognized	
5.	Considerations received/(paid) on terminations	14,627,671
6.	Amortization	
7.	Adjustment to the Book/Adjusted Carrying Value of hedged item	
8.	Total foreign exchange change in Book/Adjusted Carrying Value	
9.	Book/Adjusted Carrying Value at End of Current Period (Lines 1+2+3+4-5+6+7+8)	
10.	Deduct nonadmitted assets	
11.	Statement value at end of current period (Line 9 minus Line 10)	

SCHEDULE DB - PART B - VERIFICATION

Futures Contracts

1.	Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)				
2.	Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cu	umulative Cash Cha	nge column)		
3.1	Add:				
	Change in variation margin on open contracts - Highly Effective Hedges				
	3.11 Section 1, Column 15, current year to date minus				
	3.12 Section 1, Column 15, prior year				
	Change in variation margin on open contracts - All Other				
	3.13 Section 1, Column 18, current year to date minus	(11,662,247)			
	3.14 Section 1, Column 18, prior year	32,119,985	(43,782,232)	(43,782,232)	
3.2	Add:				
	Change in adjustment to basis of hedged item				
	3.21 Section 1, Column 17, current year to date minus				
	3.22 Section 1, Column 17, prior year				
	Change in amount recognized				
	3.23 Section 1, Column 19, current year to date minus	(11,662,247)			
	3.24 Section 1, Column 19, prior year		(43,782,232)	(43,782,232)	
3.3	Subtotal (Line 3.1 minus Line 3.2)				
4.1	Cumulative variation margin on terminated contracts during the year				
4.2	Less:				
	4.21 Amount used to adjust basis of hedged item				
	4.22 Amount recognized				
4.3	Subtotal (Line 4.1 minus Line 4.2)				
5.	Dispositions gains (losses) on contracts terminated in prior year:				
	5.1 Total gain (loss) recognized for terminations in prior year				
	5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year				(32,119,985)
6.	Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)				
7.	Deduct total nonadmitted amounts				
8.	Statement value at end of current period (Line 6 minus Line 7)				

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

Schedule DB-Part C-Section 2-Reconciliation of Replication (Synthetic Asset) Transactions Open **NONE**

SCHEDULE DB - VERIFICATION

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

		Book/Adjusted Carrying Value Check
1.	Part A, Section 1, Column 14	
2.	Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance	
3.	Total (Line 1 plus Line 2)	
4.	Part D, Section 1, Column 5	
5.	Part D, Section 1, Column 6	(721, 151, 549)
6.	Total (Line 3 minus Line 4 minus Line 5)	
		Fair Value Check
7.	Part A, Section 1, Column 16	
8.	Part B, Section 1, Column 13	(11,662,247)
9.	Total (Line 7 plus Line 8)	
10.	Part D, Section 1, Column 8	
11.	Part D, Section 1, Column 9	
12	Total (Line 9 minus Line 10 minus Line 11)	
		Potential Exposure Check
13.	Part A, Section 1, Column 21	
14.	Part B, Section 1, Column 20	
15.	Part D, Section 1, Column 11	
16.	Total (Line 13 plus Line 14 minus Line 15)	

SCHEDULE E - PART 2 - VERIFICATION (Cash Equivalents)

(Cash Equivalents)			
		1	2
		Year To Date	Prior Year Ended December 31
1.	Book/adjusted carrying value, December 31 of prior year		
2.	Cost of cash equivalents acquired		5,672,626,426
3.	Accrual of discount	3,116,383	3,879,731
4.	Unrealized valuation increase (decrease)		
5.	Total gain (loss) on disposals		416
6.	Deduct consideration received on disposals	3,312,679,771	5,705,731,481
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)		
11.	Deduct total nonadmitted amounts		
12.	Statement value at end of current period (Line 10 minus Line 11)	245,070,058	258,600,632