

ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2018 OF THE CONDITION AND AFFAIRS OF THE SEPARATE ACCOUNTS OF THE

NAIC Group Code 0435 OBJECT NAIC Company Code 93432 Employer's ID Number 06-1041383

	(Current) (Prior)		
Organized under the Laws of	Connecticut	, State of Domicile or Port of E	ntryCT
Country of Domicile	Unite	d States of America	
Type of Separate Accounts	Insulated [X] Non-Insulated []		
Incorporated/Organized	04/25/1980	Commenced Business	05/12/1981
Statutory Home Office	100 Bright Meadow Boulevard		Enfield, CT, US 06082
, <u></u>	(Street and Number)	(City o	r Town, State, Country and Zip Code)
Main Administrative Office		295 State Street	
Ç	(Sipringfield, MA, US 01111	treet and Number)	413-788-8411
	own, State, Country and Zip Code)		Area Code) (Telephone Number)
Mail Address	1295 State Street		Springfield, MA, US 01111
	(Street and Number or P.O. Box)	(City o	r Town, State, Country and Zip Code)
Primary Location of Books and F	tecords	1295 State Street	
	•	treet and Number)	440 700 0444
	pringfield, MA, US 01111 own, State, Country and Zip Code)		413-788-8411 Area Code) (Telephone Number)
Internet Website Address			,,
internet Website Address	ww	w.massmutual.com	
Statutory Statement Contact _	Yiji S. Starr (Name)		617-695-4651 (Area Code) (Telephone Number)
y:	starr02@massmutual.com	, .	(Area Code) (Telephone Number) 413-226-4086
	(E-mail Address)		(FAX Number)
		OFFICERS	
President and Chief	Dogov William Crondell	T	Todd Covett Bioken
Executive Officer Secretary	Roger William Crandall Pia Denise Flanagan	Appointed Actuary _	Todd Garett Picken Douglas Wright Taylor
Elizabeth Ward Chicares, Exe	cutive Vice President and	OTHER	
Chief Financi	al Officer Michael Robert F	Fanning, Executive Vice President	Melvin Timothy Corbett, Executive Vice President
	DIRECT	ORS OR TRUSTEES	
Roger William Crar Michael James		chael Robert Fanning	Elizabeth Ward Chicares
- Wilchael James			
State of	Massachusetts		
County of	Hampden SS:		
all of the herein described asse statement, together with related condition and affairs of the said in accordance with the NAIC An rules or regulations require diff respectively. Furthermore, the s	its were the absolute property of the said reporting exhibits, schedules and explanations therein contreporting entity as of the reporting period stated at nual Statement Instructions and Accounting Prace erences in reporting not related to accounting cope of this attestation by the described officers	ng entity, free and clear from any liens ained, annexed or referred to, is a full a bove, and of its income and deductions stices and Procedures manual except to practices and procedures, according also includes the related corresponding	porting entity, and that on the reporting period stated above, is or claims thereon, except as herein stated, and that this and true statement of all the assets and liabilities and of the is therefrom for the period ended, and have been completed to the extent that: (1) state law may differ; or, (2) that state if you the best of their information, knowledge and belief, and electronic filing with the NAIC, when required, that is an you be requested by various regulators in lieu of or in addition
Roger William Cra	ndall Pia	a Denise Flanagan	Todd Garett Picken
President and Chief Exec		Secretary	Treasurer
Subscribed and sworn to before day of	me this	a. Is this an original filin b. If no, 1. State the amendm 2. Date filed	ent number

		33E13			
			Current Year		Prior Year
		1 General Account Basis	2 Fair Value Basis	3 Total (Cols. 1 + 2)	4 Total
1.	Bonds (Schedule D)				
2.	Stocks (Schedule D):				
	2.1 Preferred stocks				
	2.2 Common stocks		1,596,964,984	1,596,964,984	1,877,851,769
3.	Mortgage loans on real estate (Schedule B)				
4.	Real estate (Schedule A):				
	4.1 Properties held for the production of income (less				
	\$ encumbrances)				
	4.2 Properties held for sale (less \$				
	encumbrances)				
5.	Contract loans				
6.	Cash (\$ Schedule E - Part 1), and cash				
	equivalents (\$, Schedule E - Part 2)				
7.	Short-term investments (Schedule DA)				
8.	Derivatives (Schedule DB)				
9.	Other invested assets (Schedule BA)				
10.	Securities lending reinvested collateral assets (Schedule DL)				
11.	Aggregate write-ins for invested assets				
12.	Subtotals, cash and invested assets (Lines 1 to 11)		1,596,964,984	1,596,964,984	1,877,851,769
13.	Investment income due and accrued		6,732	6,732	2,953
14.	Receivables for securities				
15.	Net adjustment in assets and liabilities due to foreign exchange rates				
16.	Aggregate write-ins for other than invested assets				
17.	Total (Lines 12 to 16)		1,596,971,716	1,596,971,716	1,877,854,722
	DETAILS OF WRITE-INS				
1101.					
1102.					
1103.					
1198.	Summary of remaining write-ins for Line 11 from overflow page				
1199.	Totals (Lines 1101 thru 1103 plus 1198)(Line 11 above)				
1601.					
1602.					
1603.					
1698.	Summary of remaining write-ins for Line 16 from overflow page				
1699.	Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above)				

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE SEPARATE ACCOUNTS OF THE C.M. Life Insurance Company LIABILITIES AND SURPLUS

		AITO GOIT		ī	D: \/
		1	Current Year	3	Prior Year 4
		General Account Basis	Fair Value Basis	Total (Cols. 1 + 2)	Total
1.	Aggregate reserve for life, annuity and accident and health contracts (Exhibit 3, Line 9999999, Col. 2)		1,592,405,476	1,592,405,476	1,871,927,150
2.	Liability for deposit-type contracts (Exhibit 4, Line 9, Col. 1)				
3.	Interest Maintenance Reserve				
4.	Charges for investment management, administration and contract guarantees due or accrued		2,664	2,664	10,682
5.	Investment expenses due or accrued (Exhibit 1, Line 24)				
6.	Investment taxes, licenses and fees due or accrued, excluding federal income taxes (Exhibit 2, Line 8)				
7.	Federal and foreign income taxes due or accrued (excluding deferred taxes)				
8.	Reserve for future federal income taxes				
9.	Unearned investment income				
10.	Other transfers to general account due or accrued (net) (including				
	\$4,444,931 accrued expense allowances recognized in				
	reserves)		4,444,933	4,444,933	5,794,867
11.	Remittances and items not allocated				
12.	Derivatives				
13.	Payable for securities				
14.	Payable for securities lending				
15.	Net adjustment in assets and liabilities due to foreign exchange rates				
16.	Aggregate write-ins for liabilities		118,643	118,643	122,023
17.	Total liabilities (including \$4,447,597 due or accrued net				
	transfers to or (from) the general account)		1,596,971,716	1,596,971,716	1,877,854,722
18.	Contributed surplus				
19.	Aggregate write-ins for special surplus funds				
20.	Unassigned funds				
21.	Surplus (Lines 18 through 20)				
22.	Totals		1,596,971,716	1,596,971,716	1,877,854,722
	DETAILS OF WRITE-INS		, , . ,	, = , = ,	, , , , ,
1601.			118.643	118,643	122,023
1602.	,			ŕ	
1603.					
1698.					
1699.	Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above)		118,643	118,643	122,023
1901.					
1902.					
1903.					
1998.	Summary of remaining write-ins for Line 19 from overflow page				
1999.	Totals (Lines 1901 thru 1903 plus 1998)(Line 19 above)				

SUMMARY OF OPERATIONS

		1 1	2
1.	Transfers to Separate Accounts:	Current Year	Prior Year
	1.1 Net premiums and annuity considerations for life and accident and health contracts	52,603,833	57,209,623
	1.2 Considerations for supplementary contracts with life contingencies		
	1.3 Aggregate write-ins for other transfers to Separate Accounts		57 200 622
	Transfers on account of deposit-type contracts (including \$		7,209,023
	less \$ withdrawals)		
	Net investment income and capital gains and losses	(107,472,079)	317,496,883
4.	Aggregate write-ins for other income		374,706,506
5. DEDUC	Totals (Lines 1.4 to 4)	(34,000,239)	374,700,300
	Transfers from the Separate Account on account of contract benefits:		
	6.1 Death benefits		8,672,304
	6.2 Matured endowments		16 504 321
	6.4 Payments on supplementary contracts with life contingencies		10,007,021
	6.5 Accident and health benefits		
	6.6 Surrender benefits and withdrawals for life contracts	· · ·	· · ·
7.	6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits		
8.	Net transfer of reserves from or (to) Separate Accounts	7,615,856	8,660,820
	Other transfers from the Separate Accounts:		
	9.1 Federal and foreign income taxes incurred		(444,040)
	9.2 Change in expense allowances recognized in reserves 9.3 Aggregate write-ins for other transfers from Separate Accounts		(144,619)
	Subtotals (Lines 6.1 to 9.3)		176,625,028
11.	Fees associated with charges for investment management, administration and contract guarantees	37,495,020	38,055,414
	Increase in aggregate reserve for life and accident and health contracts		
13. 14.	Increase in liability for deposit-type contracts		
15.	Aggregate write-ins for reserves and funds		1,302
16.	Totals (Lines 10 to 15)		374,706,506
17.	Net gain from operations (including \$unrealized capital gains) (Line 5 minus Line 16)		
40	SURPLUS ACCOUNT		
18. 19.	Surplus, December 31, prior year		
20.	Surplus contributed or (withdrawn) during year		
21.	Change in reserve on account of change in valuation basis, (increase) or decrease		
	Transfer from Separate Accounts of the change in expense allowances recognized in Line 21		
23. 24.	Aggregate write-ins for gains and losses in surplus		
	DETAILS OF WRITE-INS		
		-	
	Summary of remaining write-ins for Line 1.3 from overflow page		
	Totals (Lines 01.301 thru 01.303 plus 01.398)(Line 1.3 above)		
	Miscellaneous		
		-	
	Summary of remaining write-ins for Line 4 from overflow page		
	Totals (Lines 0401 thru 0403 plus 0498)(Line 4 above)	7	
	Summary of remaining write-ins for Line 6.7 from overflow page		
	Totals (Lines 06.701 thru 06.703 plus 06.798)(Line 6.7 above)		
09.301.			
		-	
	Summary of remaining write-ins for Line 9.3 from overflow page		
	Totals (Lines 09.301 thru 09.303 plus 09.398)(Line 9.3 above)	<u> </u>	
	Change in annuitant mortality fluctuation fund	(3,380)	1,302
	Summary of remaining write-ins for Line 15 from overflow page		
	Totals (Lines 1501 thru 1503 plus 1598)(Line 15 above)	(3,380)	1,302
	Summary of romaining write ine for Line 22 from everflow page		
	Summary of remaining write-ins for Line 23 from overflow page		
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ANNUAL STATEMENT FOR THE YEAR 2018 OF THE SEPARATE ACCOUNTS OF THE C.M. Life Insurance Company

ANALYSIS OF OPERATIONS BY LINES OF BUSINESS

			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		LINES OF DO			1		1 2
		1		Ordinary			oup		and Health	9
		Total	2 Life Insurance	3 Individual Annuities	4 Supplementary Contracts	5 Life Insurance	6 Annuities	7 Group	8 Other	Aggregate of All Other Lines of Business
	Transfers to Separate Accounts:	Total	Life insurance	individual Annuities	Supplementary Contracts	Life insurance	Annuities	Group	Other	Lines of Business
1.		52,603,833	21,026,801	31,575,444		1,588				
	1.1 Net premiums and annuity considerations for life and accident and health contracts 1.2 Considerations for supplementary contracts with life contingencies	52,003,033	21,020,001	1,5/5,444		1,300				
	1.3 Aggregate write-ins for other transfers to Separate Accounts	52.603.833	01 000 001	04 575 444		1.588				
	1.4 Totals (Lines 1.1 to 1.3)	52,603,833	21,026,801	31,575,444		1,588				
2.	Transfers on account of deposit-type contracts (including									
	\$ deposits less \$ withdrawals)									
3.	Net investment income and capital gains and losses	(107,472,079)	(29,924,071)	(77,548,226)		218				
4.	Aggregate write-ins for other income	7	7							
	Totals (Lines 1.4 to 4)	(54,868,239)	(8,897,263)	(45,972,782)		1,806				
DEDUCT										
6.	Transfers from the Separate Account on account of contract benefits: 6.1 Death benefits	2,287,977	2,287,977							
	6.2 Matured endowments									
	6.3 Annuity benefits	15,083,465		15,083,465						
	6.4 Payments on supplementary contracts with life contingencies				L			L		
1	6.5 Accident and health benefits									
	6.6 Surrender benefits and withdrawals for life contracts	155 , 148 , 499	21,964,924	133, 183, 575						
	6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits									
7.	Transfers on account of policy loans	8.375.934	8,499,913	(127,800)	<u> </u>	3,821	•			
8.	Net transfer of reserves from or (to) Separate Accounts	7,615,856	(2,453,489)	10,072,347		(3,002)				
9.	Other transfers from the Separate Accounts:					(0,002)	•			
0.	9.1 Federal and foreign income taxes incurred									
	9.2 Change in expense allowances recognized in reserves	(1,349,936)	(117,399)	(1,232,537)						
	9.3 Aggregate write-ins for other transfers from Separate Accounts	1,010,000)		(1,202,001)						
10.	Subtotals (Lines 6.1 to 9.3)	187, 161, 795	30,181,926	156,979,050		819				
11.	Fees associated with charges for investment management, administration and contract	107, 101, 793	, 161,920 ا	130,979,030		019				
11.	quarantees	37,495,020	21, 187, 674	16,285,319		22,027				
12.	Increase in aggregate reserve for life and accident and health contracts	(279,521,674)	(60, 266, 863)	(219,233,771)		(21,040)				
13.	Increase in liability for deposit-type contracts	(2/9,521,0/4)	(00,200,803)	(219,200,771)		(21,040)				
14.	Increase in reserve for future federal income taxes									
15.	Aggregate write-ins for reserves and funds	(3,380)		(3,380)						
		(54,868,239)	(8,897,263)	(45,972,782)		1.806				
10.	Totals (Lines 10 to 15)	(34,000,239)	(0,097,203)	(45,972,762)		1,000				
17.	gains) (Line 5 minus Line 16)									
	DETAILS OF WRITE-INS									
01.302.										
01.303.										
	Summary of remaining write-ins for Line 1.3 from overflow page									
	Totals (Lines 01.301 thru 01.303 plus 01.398) (Line 1.3 above)									
	Miscellaneous		7							
0402.					ļ <u></u>		ļ	-		
0403.										
	Summary of remaining write-ins for Line 4 from overflow page				ļ ļ				ļ	
	Totals (Lines 0401 thru 0403 plus 0498) (Line 4 above)	7	7							
				·····						
										
06.703.										
06.798.	Summary of remaining write-ins for Line 6.7 from overflow page									
06.799.	Totals (Lines 06.701 thru 06.703 plus 06.798) (Line 6.7 above)									
09.301.										
09.303.										
	Summary of remaining write-ins for Line 9.3 from overflow page									
	Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above)									
	Change in annuitant mortality fluctuation fund	(3,380)		(3.380)						
1501.		(0,000)		(0,000)			•			
1502.										
	Summary of remaining write-ins for Line 15 from overflow page				· · · · · · · · · · · · · · · · · · ·		•	T		
1599	Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)	(3,380)		(3,380)						
1000.	10tato (Emos 1001 tilla 1000 pias 1000) (Eme 10 above)	(0,000)		(0,300)			l	1	1	

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE SEPARATE ACCOUNTS OF THE C.M. Life Insurance Company ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR

	ANAL 1313 OF THE	1		Ordinary	<i></i>	Gro	qu
			2	3	4	5	6
		Total	Life Insurance	Individual Annuities	Supplementary Contracts	Life Insurance	Annuities
1.	Reserve Dec. 31 of prior year	1,871,927,150	530,915,436	1,340,987,601		24 , 113	
2.	Tabular net premiums and considerations for annuities and supplementary contracts with life contingencies	52,603,833	21,026,801	31,575,444		1,588	
3.	Increase or (decrease) from investment results after provision for federal income taxes	(107,472,079)	(29,924,071)	(77,548,226)		218	
4.	Tabular less actual reserve released						
5.	Increase in reserve on account of change in valuation basis						
5.1	Change in excess of VM-20 deterministic/stochastic reserve over net premium reserve			XXX	XXX	xxx	XXX
6.	Other increases (net)	. 7	7				
7.	Totals (Lines 1 to 6)	1,817,058,911	522,018,173	1,295,014,819		25,919	
8.	Net transfer of reserves from or (to) Separate Accounts	7,615,856	(2,453,489)	10,072,347		(3,002)	
9.	Tabular cost						
10.	Reserves released by death	2,287,977	2,287,977				
11.	Reserves released by other terminations (net)	155 , 148 , 499	21,964,924	133, 183,575			
12.	Transfers on account of annuity and supplementary contract payments involving life contingencies	15,083,465		15,083,465			
13.	Charges for investment management, administration and contract guarantees	37,495,020	21,187,674	16,285,319		22,027	
14.	Aggregate write-ins for other decreases in reserves	7,022,618	8,382,514	(1,363,717)		3,821	
15.	Total deductions (Lines 8 to 14)	224,653,435	51,369,600	173,260,989		22,846	
16.	Reserve December 31 of current year	1,592,405,476	470,648,573	1,121,753,830		3,073	
	DETAILS OF WRITE-INS						
1401.	Change in policy loans	8,375,934	8,499,913	(127,800)		3,821	
1402.	Change in annuitant mortality fluctuation fund	(3,380)		(3,380)			
1403.	Change in surrender charge offset	(1,349,936)	(117,399)	(1,232,537)			
1498.	Summary of remaining write-ins for Line 14 from overflow page						
1499.	Totals (Lines 1401 thru 1403 plus 1498) (Line 14 above)	7,022,618	8,382,514	(1,363,717)		3,821	

EXHIBIT OF NET INVESTMENT INCOME

		1	2
		Collected During Year	
1.	U.S. Government bonds	(a)	
1.1	Bonds exempt from U.S. tax	(a)	
1.2	Other bonds (unaffiliated)	(a)	
1.3	Bonds of affiliates	(a)	
2.1	Preferred stocks (unaffiliated)	(b)	
2.11	Preferred stocks of affiliates		
2.2	Common stocks (unaffiliated)	167,725,467	
2.21	Common stocks of affiliates		
3.	Mortgage loans	(c)	
4.	Real estate	(d)	
5	Contract loans		
6	Cash, cash equivalents and short-term investments	· '	
7	Derivative instruments		
8.	Other invested assets		
9.	Aggregate write-ins for investment income		
10.	Total gross investment income	167,725,467	, ,
11.	Investment expenses		
12.	Investment taxes, licenses and fees, excluding federal income taxes		
13.	Interest expense		
14.	Depreciation on real estate and other invested assets		* *
15.	Aggregate write-ins for deductions from investment income		
16.	Total deductions (Lines 11 through 15)		167,729,246
17.	Net investment income (Line 10 minus Line 16) DETAILS OF WRITE-INS		107,729,240
0001			
0901. 0902.			
0902.			
0903.	Summary of remaining write-ins for Line 9 from overflow page		
0999.	Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)		
1501.	Totals (Ellies 6501 till 6500 pius 6550) (Ellie 5, above)		
1501.			
1503.			
1598.	Summary of remaining write-ins for Line 15 from overflow page		
1599.	Totals (Lines 1501 thru 1503 plus 1598) (Line 15, above)		
/=\ l==l			
(a) inclu	des \$ accrual of discount less \$ amortization of premium and less \$	paid for accrued into	erest on purchases.
(b) Inclu	des\$ accrual of discount less\$ amortization of premium and less\$	paid for accrued div	idends on purchases.
		•	•
(c) Inclu	des \$ accrual of discount less \$ amortization of premium and less \$	paid for accrued into	erest on purchases.
(d) Inclu	des \$ for company's occupancy of its own buildings; and excludes \$ interest on en	cumbrances	
(e) Inclu	des \$ accrual of discount less \$ amortization of premium and less \$	paid for accrued into	erest on purchases.
(f) Includ	les \$ accrual of discount less \$ amortization of premium.		
` '	·		
(g) Inclu		ederal income taxes, att	ributable to
seg	regated and Separate Accounts.		
(h) Inclu	des \$ interest on surplus notes and \$ interest on capital notes.		
(:) In al.			

EXHIBIT OF CAPITAL GAINS (LOSSES)

	ЕЛПІВІІ	OF CAPI	IAL GAIN	19 (FO39E	.J	
		1	2	3	4	5
		Realized Gain (Loss) On Sales or Maturity	Other Realized Adjustments	Total Realized Capital Gain (Loss) (Columns 1 + 2)	Change in Unrealized Capital Gain (Loss)	Change in Unrealized Foreign Exchange Capital Gain (Loss)
1.	U.S. Government bonds					
1.1	Bonds exempt from U.S. tax					
1.2	Other bonds (unaffiliated)					
1.3	Bonds of affiliates					
2.1	Preferred stocks (unaffiliated)					
2.11	Preferred stocks of affiliates					
2.2	Common stocks (unaffiliated)			49,048,031	(324,249,355)	
2.21	Common stocks of affiliates					
3.	Mortgage loans					
4.	Real estate					
5.	Contract loans					
6.	Cash, cash equivalents and short-term investments					
7.	Derivative instruments					
8.	Other invested assets					
9.	Aggregate write-ins for capital gains (losses)	49.048.031		49,048,031	(324,249,355)	
10.	Total capital gains (losses) DETAILS OF WRITE-INS	45,040,031		43,040,031	(324,249,333)	
0901.	DETAILS OF WRITE-INS					
0901.						
0902.						
0998.	Summary of remaining write-ins for Line 9 from overflow page					
0999.	Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)					

Exhibit 1
NONE

Exhibit 2 **NONE**

EXHIBIT 3 - AGGREGATE RESERVE FOR LIFE, ANNUITY AND ACCIDENT AND HEALTH CONTRACTS

1	2	3	4
Description of Valuation Basis	Total	Ordinary	Group
0100001. 80 CSO 4.00% CRVM	6,367,632	6,367,632	
0100002. 80 CSO 4.50% CRVM	464,280,941	464,280,941	
0100003. 80 CSO Account Value	3,073		3,073
0199999. Life Insurance: Totals	470,651,646	470,648,573	3,073
0200001. Deferred Annuity 4.75%-7.00% CARVM	1, 117, 345, 685	1, 117, 345, 685	
0200002. Annuity Reserve 4% VA Valuation 82	4,408,145	4,408,145	
0299999. Annuities: Totals	1,121,753,830	1,121,753,830	
9999999. Totals (to Page 3, Line 1)	1,592,405,476	1,592,402,403	3,073

EXHIBIT 3 - INTERROGATORIES

1.1	Has the reporting entity ever issued both participating and non-participating variable life insurance contracts?	,	es []] No	[]	X]		
2.1	Does the reporting entity at present issue both participating and non-participating variable life insurance contracts?	,	/es []] No	[)	X]		
2.2	If not, state which kind is issued None								
3.1	Is any surrender value promised in excess of the reserve as legally computed?	Yes []	No	[X]	N	I/A [[]	
3.2	If so, the amount of such excess must be included in surrender values in excess of reserves otherwise required and carried in this schedule. Has this been done? Attach a statement of methods employed in the valuation of variable life insurance contracts issued at, or subsequently subject to, an extra premium or in the valuation of contracts otherwise issued on lives classified as substandard for the plan of contract issued or on special class lives (including paid-up variable life insurance).	Yes []	No	[]	N	I/A [[X]	

EXHIBIT 3A - CHANGES IN BASIS OF VALUATION DURING THE YEAR

(Including supplementary contracts set up on	a basis other than that used	to determine benefits)	
1	Valuati	on Basis	4
	2	3	Increase in Actuarial
Description of Valuation Class	nged om	Changed To	Reserve Due to Change
	<u> </u>		
9999999 - Totals (Page 6, Line 5, Analysis of Increase in selection)			

Exhibit 4 **NONE**

EXHIBIT 5 - RECONCILIATION OF CASH AND INVESTED ASSETS

1. Transfers to Separate Accounts on account of 1. 1. Net premiums and considerations for annulise and supplementary contracts with life contingencies 1.2 Aggregate writer in sor to the transfers to Separate Accounts 2. Deposits on deposit-type contract funds and other liabilities without life or disability contingencies 3. Investment income collected 4. Consideration on disposal of short term bonds net of purchases 5. Consideration on disposal of which term bonds net of purchases 6. Aggregate writer ins for other increases in funds from operations 7. Total Liliure 10 6) 8. Cost of investments acquired (excluding short-term bonds) 9. Total Liliure 10 6) 9. Transfers from Separate Accounts on account of contract benefits 9.1 Death bonetis 9.3 Manuted endowments 9.3 Annuity benefits 9.4 Subject and the accounts on account of contract benefits 9.5 Surplementary contract benefits with life contingencies 9.5 Account and health benefits 9.5 Surplementary contract benefits with life contingencies 9.5 Account and health benefits 9.5 Transfers from Separate Accounts on account of contract benefits 9.5 Transfers from the premate accounts on account of contract benefits 9.6 Surplementary contract benefits with life contracts 9.7 Policy lorate (ent) 9.5 Transfers from Separate Accounts 10.1 Protestal incores taxes 10.2 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits 10.1 Protestal incores taxes 10.2 Aggregate write-ins for other transfers from Separate Accounts 10.1 Protestal incores taxes 10.2 Aggregate write-ins for other transfers from Separate Accounts 10.2 Interest incorporate taxes 10.3 Aggregate write-ins for other transfers from Separate Accounts 10.4 Fores associated with investment transgerent, administration and contract during functions 10.4 Fores associated with investment transgerent administration and contract during functions 10.4 Fores associated with investment transgerent administration and contract taxes (Entitlia 1, Line 9) 10. Transfer from Separate Accou	
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12. Investment expenses (Exhibit 1, Line 25) 12.1 Fees associated with investment management, administration and contract guarantees 13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9) 14. Total (Lines 8 to 13) 15. Funds from operations (Line 7 minus Line 14) 16. Surplus contributed or (withdrawn) during year 17. Aggregate write-ins for other changes in funds 18. Total funds (includes \$ net transfers from general account) (Lines 15 to 17) 19. Increase in payable for investments acquired, net of receivable for investments sold 20. Decrease in policy loans 21. Aggregate write-ins for other reconciling items 22. Increase in cash (Line 18 to 21) RECONCILIATION BETWEEN YEARS 23. Cash and invested assets, December 31st of prior year 24. Increase in cash (Line 22) 25. Cost of invested assets acquired. 26. Adjusted cost of assets disposed of 17. Increase in policy loans 28. Accrual of discount less amortization of premium 29. Depreciation on real estate and other invested assets 19. Increase in net unrealized gains 30. Increase in net unrealized gains 31. Aggregate write-ins for other reconciling items 22. Detrails OF WRITE-INS DETAILS OF WRITE-INS	456,711,061
12.1 Fees associated with investment management, administration and contract guarantees 13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9) 14. Total (Lines 8 to 13) 15. Funds from operations (Line 7 minus Line 14) 16. Surplus contributed or (withdrawn) during year 17. Aggregate write-ins for other changes in funds 18. Total funds (includes \$ net transfers from general account) (Lines 15 to 17) 19. Increase in payable for investments acquired, net of receivable for investments sold 20. Decrease in policy loans 21. Aggregate write-ins for other reconciling items 22. Increase in cash (Line 18 to 21) RECONCILIATION BETWEEN YEARS 23. Cash and invested assets, December 31st of prior year. 24. Increase in cash (Line 22) 25. Cost of invested assets acquired. 26. Adjusted cost of assets disposed of. 27. Increase in policy loans 28. Accrual of discount less amortization of premium 29. Depreciation on real estate and other invested assets 10. Increase in net unrealized gains 31. Aggregate write-ins for other reconciling items 32. Cash and invested assets, December 31st of current year DETAILS OF WRITE-INS 10. Total Country (Increase) DETAILS OF WRITE-INS	
13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9) 14. Total (Lines 8 to 13)	456,711,061
14. Total (Lines 8 to 13). 15. Funds from operations (Line 7 minus Line 14). 16. Surplus contributed or (withdrawn) during year 17. Aggregate write-ins for other changes in funds 18. Total funds (includes \$ net transfers from general account) (Lines 15 to 17). 19. Increase in payable for investments acquired, net of receivable for investments sold 20. Decrease in policy loans. 21. Aggregate write-ins for other reconciling items 22. Increase in cash (Line 18 to 21). **RECONCILIATION BETWEEN YEARS** 23. Cash and invested assets, December 31st of prior year. 24. Increase in cash (Line 22). 25. Cost of invested assets acquired. 26. Adjusted cost of assets disposed of. 27. Increase in policy loans. 28. Accrual of discount less amortization of premium. 29. Depreciation on real estate and other invested assets. 30. Increase in net unrealized gains. 31. Aggregate write-ins for other reconciling items. 32. Cash and invested assets, December 31st of current year **DETAILS OF WRITE-INS** **DETAILS	456,711,061
15. Funds from operations (Line 7 minus Line 14) 16. Surplus contributed or (withdrawn) during year	
16. Surplus contributed or (withdrawn) during year	-
17. Aggregate write-ins for other changes in funds 18. Total funds (includes \$ net transfers from general account) (Lines 15 to 17) 19. Increase in payable for investments acquired, net of receivable for investments sold 20. Decrease in policy loans 21. Aggregate write-ins for other reconciling items 22. Increase in cash (Line 18 to 21) RECONCILIATION BETWEEN YEARS 23. Cash and invested assets, December 31st of prior year. 24. Increase in cash (Line 22). 25. Cost of invested assets acquired. 26. Adjusted cost of assets disposed of. 27. Increase in policy loans. 28. Accrual of discount less amortization of premium 29. Depreciation on real estate and other invested assets 30. Increase in net unrealized gains 31. Aggregate write-ins for other reconciling items 32. Cash and invested assets, December 31st of current year DETAILS OF WRITE-INS 11. Otal Total Increase in full invested assets, December 31st of current year DETAILS OF WRITE-INS	
19. Increase in payable for investments acquired, net of receivable for investments sold	
20. Decrease in policy loans	
21. Aggregate write-ins for other reconciling items 22. Increase in cash (Line 18 to 21)	
22. Increase in cash (Line 18 to 21)	
RECONCILIATION BETWEEN YEARS 23. Cash and invested assets, December 31st of prior year	
23. Cash and invested assets, December 31st of prior year. 24. Increase in cash (Line 22)	1,877,851,769
24. Increase in cash (Line 22)	
25. Cost of invested assets acquired	
27. Increase in policy loans	
28. Accrual of discount less amortization of premium	187,333,730
29. Depreciation on real estate and other invested assets 30. Increase in net unrealized gains 31. Aggregate write-ins for other reconciling items 32. Cash and invested assets, December 31st of current year DETAILS OF WRITE-INS 01.201. 01.202. 01.203.	
30. Increase in net unrealized gains	
31. Aggregate write-ins for other reconciling items 32. Cash and invested assets, December 31st of current year DETAILS OF WRITE-INS 01.201. 01.202. 01.203.	
32. Cash and invested assets, December 31st of current year DETAILS OF WRITE-INS 01.201. 01.202. 01.203.	
01.201	1,596,964,984
01.202. 01.203.	
01.203.	
U1.298. Summary of remaining write-ins for Line 1.2 from overflow bade	
01.299. Totals (Lines 01.201 thru 01.203 plus 01.298) (Line 1.2 above)	
0601	
0602	
0603.	
0698. Summary of remaining write-ins for Line 6 from overflow page	
0699. Totals (Lines 0601 thru 0603 plus 0698) (Line 6 above)	1
09.901.	
09.902.	+
09.903	
09.998. Summary of remaining write-ins for Line 9.9 from overflow page	<u> </u>
10.201. Miscel laneous	(7)
10.202.	
10.203.	
10.298. Summary of remaining write-ins for Line 10.2 from overflow page	
10.299. Totals (Lines 10.201 thru 10.203 plus 10.298) (Line 10.2 above)	(7)
1701.	-
1702	-
1798. Summary of remaining write-ins for Line 17 from overflow page	
1799. Totals (Lines 1701 thru 1703 plus 1798) (Line 17 above)	
2101	
2102.	
2103.	
2198. Summary of remaining write-ins for Line 21 from overflow page	
2199. Totals (Lines 2101 thru 2103 plus 2198) (Line 21 above)	
3101.	
3102.	
3103.	
3198. Summary of remaining write-ins for Line 31 from overflow page	

ANNUAL STATEMENT FOR THE YEAR 2018 OF THE SEPARATE ACCOUNTS OF THE C.M. Life Insurance Company **EXHIBIT 6 - GUARANTEED INSURANCE AND ANNUITY PRODUCTS**

		1	2
		Amount	Percent of Total
1.	Aggregate reserve for life, annuity and accident and health contracts (Included in Exhibit 3):		
	1.1 Life insurance		
	1.2 Annuities		
	1.3 Supplementary contracts with life contingencies		
	1.4 Accident and health		
	1.5 Miscellaneous reserves		
	1.6 Total		
2.	Liability for deposit-type contracts (included in Exhibit 4):		
	2.1 Guaranteed interest contracts		
	2.2 Annuities certain		
	2.3 Supplemental contracts		
	2.4 Dividend accumulations or refunds		
	2.5 Premium and other deposit funds		
	2.6 Total		
3.	Other liabilities (included in Page 3, Lines 4, 10, 13 & 14)		
4.	Total liabilities associated with guarantees (Lines 1.6 + 2.6 + 3)		
5.	Total liabilities not associated with guarantees	1,596,971,716	100

Total Separate Accounts liabilities (Lines 4 + 5 = Page 3, Line 17)

1,596,971,716

100.0%

GENERAL INTERROGATORIES

Product Mix

1.01 Identify the product types in the separate account, quantify the assets associated with those products, indicate if there are any guarantees associated with those products, quantify seed money and quantify other fees and expenses due to the general account:

Note: A distinct product identifier shall be used for each product and shall be used consistently throughout the interrogatory.

1	Separate Acc	count Assets	4	5	6	7
	2	3	Guarantees		Fees and	Additional
			Associated with		Expenses	Required
	Registered with	Not Registered	the Product		Due to the	Surplus
Product Identifier	SEC	with SEC	Yes/No	Seed Money	General Account	Amounts
Individual Variable Annuity	1, 126, 183, 473		YES			
Individual Variable Universal Life	470 , 785 , 157		YES			
Corporate-owned Life Insurance	3,086		YES			
Totals	1,596,971,716		XXX			

Note: Additional Required Surplus Amounts is defined as additional or permanent surplus that is required to be retained in the separate account in accordance with state law or regulation. These amounts should not include reinvested separate account investment proceeds that have not been allocated to separate account contract holders.

1.01A For the products (and related assets) that are not registered with the SEC, identify whether the products are considered private placement variable annuity products or private placement life insurance.

1	Not Registered with SEC					
	2	3	4			
	Private Placement	Private Placement	Other (Not PPVA or			
Product Identifier	Variable Annuity	Life Insurance	PPLI)			
Totals						

Totals								
Did the reporting entity remit seed money, other fees an						1 :] No [X 1
i yes, provide information on the total gross amount of semitted to the general account during the current year (seed money, oth	her fees and expens	ses or additional required	l surplus amounts	100	, i) NO [ν 1
	•			rey	\$			
			1.032 Other Fee	s and Expenses	\$			
				Required Surplus Amour				
						_		
Did the reporting entity receive seed money from the ge if yes, provide information on the total gross amount of semitted in the current year, include the gross amounts	seed money rec	eived in the current			Yes	S [] No [X]
enitted in the current year, include the gross amounts	iii botii 1.001 ai	na 1.051.)	1.051 Seed Mor	ney Received	\$			
				•				
Does the reporting entity consider any of the seed mone	ey reflected in se	eparate accounts to	be insulated from the ge	eneral account? Yes	[] [No [] N/A	. [X]
ives provide information on the amount of seed maney	utho roporting o	entitu oonoidara inau	lated from the general a	occupt:				
f yes, provide information on the amount of seed money	y the reporting e	entity considers insu	lated from the general a	ccount:				
yes, provide information on the amount of seed money resulated Seed Money		•	ŭ		\$			
nsulated Seed Money					\$			
nsulated Seed Money					\$			
nsulated Seed Money			penses due and addition	nal required surplus				1
nsulated Seed Money			penses due and additior	nal required surplus	Yes	s [] No []
nsulated Seed Money			penses due and additior 1.081 Seed Money 1.082 Other Fees an	nal required surplus	Yes] No []
nsulated Seed Money Does the reporting entity have a policy for repatriating someonts to the general account:	eed money or re	emitting fees and ex	penses due and additior 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec	d Expensesuired Surplus	Yes] i] No []
nsulated Seed Money Does the reporting entity have a policy for repatriating someonts to the general account: Provide detail on the time duration for which seed mone	eed money or re	emitting fees and ex	penses due and additior 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec	d Expensesuired Surplus	Yes] i] No []
nsulated Seed Money Does the reporting entity have a policy for repatriating someonts to the general account:	eed money or re	emitting fees and ex	penses due and additior 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec	d Expensesuired Surplus	Yes] i] No []
nsulated Seed Money Does the reporting entity have a policy for repatriating someonts to the general account: Provide detail on the time duration for which seed mone	eed money or re	emitting fees and ex	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses	d Expensesuired Surplus Amounts	Yes] i] No []
nsulated Seed Money Does the reporting entity have a policy for repatriating someonts to the general account: Provide detail on the time duration for which seed mone	eed money or re	emitting fees and execution of expenses due to	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses Due to the	d Expensesuired Surplus Amounts additional required Additional Required	Yes] i] No []
Provide detail on the time duration for which seed mone urplus amounts have been held in the separate account.	eed money or re	emitting fees and executed and expenses due to the seed Money	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses Due to the General Account	d Expenses	Yes] i] No []
Provide detail on the time duration for which seed mone urplus amounts have been held in the separate accourt	eed money or re	emitting fees and execution despenses due to	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses Due to the General Account	d Expenses	Yes] i] No []
Does the reporting entity have a policy for repatriating someonts to the general account: Provide detail on the time duration for which seed mone arrival amounts have been held in the separate account.	eed money or re	emitting fees and execution despenses due to	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses Due to the General Account	d Expenses	Yes] i] No []
Does the reporting entity have a policy for repatriating someonts to the general account: Provide detail on the time duration for which seed mone urplus amounts have been held in the separate account. 1.091 Under 1 Year	eed money or re	emitting fees and execution of expenses due to	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses Due to the General Account	d Expenses	Yes] i] No []
Does the reporting entity have a policy for repatriating someonts to the general account: Provide detail on the time duration for which seed mone arrival amounts have been held in the separate account.	eed money or re	emitting fees and execution of expenses due to	penses due and addition 1.081 Seed Money 1.082 Other Fees an 1.083 Additional Rec the general account and 2 Fees and Expenses Due to the General Account	d Expenses	Yes] i] No []

GENERAL INTERROGATORIES

1.11	If no, does the reporting entity have stated policy and p additional required surplus amounts that are retained v			and expenses, and	Yes [] No []	N/A [Х]
			1.112 Other Fees and E 1.113 Additional Requir	Expensesred Surplus Amounts				N/A [N/A [X] X]
Separat 2.1	te Account Products with General Account Guarante Does the reporting entity have products with guarantee	es es provided by the general acc	ount?			Yes [)	(] N	lo []
2.2	Has the separate account collected amounts from the	general account within the pas	st five years related to sepa	arate account guarantee	s?	Yes [)	(] N	lo []
2.3	If yes, provide detail on these guarantees paid by the	general account:							
		1	2						
		Year							
		2018 \$.							
		2017 \$.							
		2016 \$. 2015 \$.							
	2.304 As of December 31, 2 2.305 As of December 31, 2	2014 \$.	577,764						
2.4	To compensate the general account for the risk taken, account remit risk charges to the general account relative countries.	for any separate account prod	ducts with general account			Yes [)	(] N	lo []
2.5	If yes, identify the separate account products with risk that product is reviewed and opined upon:	charges that are remitted to th	e general account and who	ether the risk charge for					
		2			3				
	1	2		Name and Title of	•	l who Pro	vided		
	Product Identifier with Risk Charges	Risk Charge Reviewed		Opinion or					
		No; the risk charges associ							
		are reviewed for reasonable the appropriate actuary, bu							
		these product risk charges							
	Individual Variable Annuity								
2.6	Provide detail on the risk charges paid to the general a	account related to separate acc	count guarantees for the pa	ast five years:					
		1	2						
		Year							
		018\$ 017\$							
		016 \$							
	2.604 As of December 31, 2	015 \$	78 132						
	2.605 As of December 31, 2	014 \$	88,369						
Invocto	nent Directive of Separate Account Activity								
3.1	Does the reporting entity have products classified with contract holder? (Situations in which the investments contract holder; however, having the contract holder so	directive mirrors the general ac	count would not be consid	ered determined by the		Yes [] N	lo [X]
3.2	If yes, if these investments would have been included limitations imposed on the general account?				Yes [] No []	N/A [Х]
3.3	Provide detail on the separate account investment por account and general investments, excluding separate								
	1		2	3					
			0	Combined					
	Investment Type		State Investment Limitation	Investment (Separate and General Account)					
				-					
Allocati 4.1	on of Investment Proceeds of Separate Account Act Does the reporting entity have separate account asset assessments) are attributed to a contract holder? (This	s in which less than 100% of its should identify any situations	where there is a ceiling or	n investment performand		Voc. [1 N	۷ ا ما	1
	results.)					Yes [] [/	ιυ [Λ	1

GENERAL INTERROGATORIES

4.2 If yes, provide detail on the net investment proceeds that were attributed to the contract holder, transferred to the general account and reinvested within the separate account:

	1		2	3	4	5		
	Product Identifier		Net Investment Proceeds	Attributed to Contract Holder	Transferred to General Account	Reinvested Within the Separate Account		
							_	
4.3	For items reinvested within the Separat directives of the general account?	e Account, does the report	ing entity invest the	ese assets in accor	dance with investme	ent Yes	s [] No [] N/A [X]
4.4	If no, does the reporting entity have a st account?	ated policy and procedure	for the reinvestmen	nt of investment pr	oceeds within the se	eparate Yes	s [] No [] N/A [X]
4.5	Did the reinvestment of investment proc portfolio that exceeded the state investr	ceeds within the separate a ment limitations imposed or	account result with the thick the general account in the general acc	the company havinunt?	g a combined inves	tment Yes	s [] No [] N/A [X]
Measur 5.1	ement of Separate Account Assets Does the reporting entity report all sepa	rate account assets at fair	value?				Yes [X	[] No []
5.2	For items not reported at fair value, doe measurement methods?	s the reporting entity repor	t separate account	assets at amortize	ed cost, and/or unde	r different		
					Amortized Cost Other Measuremen] No [X]] No [X]
5.3	If other measurement methods are used	• •						
5.4	Identify the assets measured at fair valuassets measured under each measurer		er measurement m	ethod and the per	centage of separate	account		
		Description		1 ount f	2 Percentage			
	5.41 Fair Value)	\$1,59	96,971,716	100.0 %			
		Costasurement Methods						
5.5	For the assets not measured at fair value		•			nraalisad		
5.5	gain or loss that would have been recor				ue and identity the d	rirealizeu		
	1	2	3					
	Assets Held at Amortized Cost	Fair Value	Unrecorded Unre Gain/Loss					
	5.51 \$	\$	\$					
	1	2	3					
	Assets Held at Other Measurement		Unrecorded Unr	ealized				
	Method	Fair Value	Gain/Loss					
	5.52 \$	\$	\$					
	and the state of t							
6.1	es Lending Transactions Within Separ Does the reporting entity engage in sec	rate Accounts urities lending transactions	with separate acco	ount assets?			Yes [] No [X]
6.2	If yes, does the reporting entity have wri	itten policies and procedure	es for such transac	tions?		Yes	s [] No [] N/A [X]
6.3	Does the reporting entity obtain approva that occur with separate account assets						3 [] No [] N/A [X]
6.4	Are all securities lending transactions re	eported on balance sheet?				Yes	s [] No [] N/A [X]
6.5	Provide a description of the reporting er lending transaction program administer		nsaction program,	specifically identify	ring any variations fr	om the securities	3	
6.6	Provide detail on the current status of s 6.61 Amount of any loaned securities w							
						mount ercentage		
	6.62 Identify whether securities lent are	reported at book value or	market value			_		
						ook Value arket Value		

GENERAL INTERROGATORIES

						 •	
	6.63 Detail or	n collateral received:					
	6.631 Ag	ggregate Amount Col	llateral Received				
						6.6311 Open	
						6.6312 30 Days or Less	
						6.6313 31 to 60 Days	
						6.6314 61 to 90 Days	
						6.6315 Greater than 90 Days 6.6316 Total Collateral Received.	
							·
	6.632 Th	ne aggregate fair valu	ue of all securities acquired	I from the sale, trade or us	se of the accepted colla	teral (reinvested collateral)	\$
	6.633 Na	arrative discussion al	oout sources and uses of c				
	6.634 Cd	ollateral for transactio					
6.7	For the report	ting entity's security I	ending program state the a	amount of the following as	December 31 of the cu	rrent year:	
						Sum of Schedule DL, Parts 1	.\$
		6.72 Total book a	adjusted/carrying value of re	einvested collateral assets	s reported on Schedule	DL, Parts 1 and 2 (Sum of	
						mn 3)	
7.1 7.2	Provide detail	orting entity report Fe	at support the classification	of FHLB funding agreem	ents within the separate	count?	
7.3			funding agreements class				
		1	2	3	4		
		Amount of FHLB	Amount of Collateral	Total Borrowing or	Total Reserves Relat	ted	
	S	Stock Purchased or Owned	Pledged to the FHLB	Funding Capacity Currently Available	to FHLB Agreements		
	\$	Owned	_	\$			
	Ψ		Ψ	Ψ	Ψ		
7.4	credit, borrow	ed money, etc) and i	intended use of funding.			ment, type of funding (lines of	
			nd SAP Financial Stateme	ents (This disclosure is	applicable to all report	ting entities regardless if they	
	AP financial s		P financial statements?				Yes [] No [X]
0.1	Does the rept	orting entity life GAA	i ililariciai staterrierits:				les [] NO [A]
8.2			eparate account reporting rethat are classified within the				
	statements had of the following	ad been completed, in ag conditions must be	required to be reported with e met to receive separate a	nin the general account ur account reporting classific	nder GAAP financials? Fation under GAAP:	Pursuant to SOP 03-1, all Yes [] No [X] N/A [
			arate account is legally recestate insurance laws, federa			hed, approved, and regulated	
						om the general account liabilities of the assets held in the separate	

- c. Investment Directive The insurer must, as a result of contractual, statutory, or regulatory requirements, invest the contract holder's funds within the separate account as directed by the contract holder in designated investment alternatives or in accordance with specific investment objectives or policies.
- d. Investment Performance All investment performance, net of contract fees and assessments, must as a result of contractual, statutory, or regulatory requirements be passed through to the individual contract holder. Contracts may specify conditions under which there may be a minimum guarantee, but not a ceiling, as a ceiling would prohibit all investment performance from being passed through to the contract holder

GENERAL INTERROGATORIES

Identify all separate account products and identify whether each product was classified within a separate account for GAAP reporting purposes. (For non-GAAP filers, this disclosure should reflect whether the GAAP classification would have been the same if GAAP financials had been completed.) For products that were (or would have been) reported differently, identify which SOP 03-1 condition prevented separate account GAAP classification for that particular product.

1	2
l l	Same as GAAP / Condition that Requires GAAP General
Product Identifier	Account Reporting
. roader identifier	
Individual Variable Annuity	Same as GAAP
Individual Variable Universal Life	Same as GAAP
Corporate-owned Life Insurance	Same as GAAP
,	

Interest Maintenance Reserve

NONE

Interest Maintenance Reserve - Amortization ${f N} \ {f O} \ {f N} \ {f E}$

Asset Valuation Reserve - Default Component **NONE**

Asset Valuation Reserve - Equity Component ${f N}$ ${f O}$ ${f N}$ ${f E}$

Asset Valuation Reserve Replications (Synthetic) Assets ${f N}$ ${f O}$ ${f N}$ ${f E}$

NONE

Schedule A - Verification - Real Estate ${f N}$ ${f O}$ ${f N}$ ${f E}$

Schedule B - Verification - Mortgage Loans ${f N}$ ${f O}$ ${f N}$ ${f E}$

SCHEDULE BA - VERIFICATION BETWEEN YEARS

Other Long-Term Invested Assets

1.	Book/adjusted carrying value, December 31 of prior year
2.	Cost of acquired:
	2.1 Actual cost at time of acquisition (Part 2, Column 8)
	2.2 Additional investment made after acquisition (Part 2, Column 9)
3.	Capitalized deferred interest and other:
	3.1 Totals, Part 1, Column 16
	3.2 Totals, Part 3, Column 12
4.	Accrual of discount
5.	Unrealized valuation increase (decrease):
	5.1 Totals, Part 1, Column 13
	5.2 Totals, Part 3, Column 9
6.	Total gain (loss) on disposals, Part 3, Column 19
7.	Deduct amounts received on disposals, Part 3, Comm 1
8.	Deduct amortization of premium and depreciation
9.	Total foreign exchange change in book/adjusted carrying value:
	9.1 Totals, Part 1, Column 17
	9.2 Totals, Part 3, Column 14
10.	Deduct current year's other than temporary impairment recognized:
	10.1 Totals, Part 1, Column 15
	10.2 Totals, Part 3, Column 11
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5+6-7-8+9-10)
12.	Deduct total nonadmitted amounts
13.	Statement value at end of current period (Line 11 minus Line 12)

SCHEDULE D - VERIFICATION BETWEEN YEARS

Bonds and Stocks

1.	Book/adjusted carrying value, December 31 of prior year	1,877,851,769
2.	Cost of bonds and stocks acquired, Part 3, Column 7	230,696,300
3.	Accrual of discount	
4.	Unrealized valuation increase (decrease):	
	4.1. Part 1, Column 12	
	4.2. Part 2, Section 1, Column 15	
	4.3. Part 2, Section 2, Column 13	
	4.4. Part 4, Column 11	(324,249,355)
5.	Total gain (loss) on disposals, Part 4, Column 19	49,048,031
6.	Deduction consideration for bonds and stocks disposed of, Part 4, Column 7	236,381,761
7.	Deduct amortization of premium	
8.	Total foreign exchange change in book/adjusted carrying value:	
	8.1. Part 1, Column 15	
	8.2. Part 2, Section 1, Column 19	
	8.3. Part 2, Section 2, Column 16	
	8.4. Part 4, Column 15	
9.	Deduct current year's other than temporary impairment recognized:	
	9.1. Part 1, Column 14	
	9.2. Part 2, Section 1, Column 17	
	9.3. Part 2, Section 2, Column 14	
	9.4. Part 4, Column 13	
10.	Total investment income recognized as a result of prepayment penalties and/or acceleration fees, Notes 5R, Line 5R(2)	
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10)	1,596,964,984
	Deduct total papedwitted arrayate	
12.	Deduct total nonadmitted amounts	

SCHEDULE D - SUMMARY BY COUNTRY

Long-Term Bonds and Stocks OWNED December 31 of Current Year

		Long-Term Bonds and Stocks	OVVINED December 3		3	4
			1 Book/Adjusted	2	3	4
D	escription	on	Carrying Value	Fair Value	Actual Cost	Par Value of Bonds
BONDS	1.	United States				
Governments	2.	Canada				
(Including all obligations guaranteed	3.	Other Countries				
by governments)	4.	Totals				
U.S. States, Territories and Possessions						
(Direct and guaranteed)	5.	Totals				
U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed)	6.	Totals				
U.S. Special Revenue and Special Assessment Obligations and all Non- Guaranteed Obligations of Agencies and Authorities of Governments and	_	T				
their Political Subdivisions	7.	Totals				
Industrial and Miscellaneous, SVO	8.	United States				
Identified Funds, Bank Loans and	9.	Canada				
Hybrid Securities (unaffiliated)	10.	Other Countries				
	11.	Totals				
Parent, Subsidiaries and Affiliates	12.	Totals				
	13.	Total Bonds				
PREFERRED STOCKS	14.	United States				
Industrial and Miscellaneous (unaffiliated)	15.	Canada				
(unaniliated)	16.	Other Countries				
	17.	Totals				
Parent, Subsidiaries and Affiliates	18.	Totals				
	19.	Total Preferred Stocks				
COMMON STOCKS	20.	United States		1,596,964,984	1,589,231,644	
Industrial and Miscellaneous	21.	Canada				
(unaffiliated)	22.	Other Countries				
	23.	Totals	1,596,964,984	1,596,964,984	1,589,231,644	
Parent, Subsidiaries and Affiliates	24.	Totals				
	25.	Total Common Stocks	1,596,964,984	1,596,964,984	1,589,231,644	
	26.	Total Stocks	1,596,964,984	1,596,964,984	1,589,231,644	
	27.	Total Bonds and Stocks	1,596,964,984	1,596,964,984	1,589,231,644	

Schedule DA - Verification - Short-Term Investments

NONE

Schedule DB - Part A - Verification - Options, Caps, Floors, Collars, Swaps and Forwards

NONE

Schedule DB - Part B - Verification - Futures Contracts

NONE

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

NONE

Schedule E - Part 2 - Verification - Cash Equivalents

NONE

Schedule A - Part 1 - Real Estate Owned

NONE

Schedule A - Part 2 - Real Estate Acquired and Additions Made

NONE

Schedule A - Part 3 - Real Estate Disposed

NONE

Schedule B - Part 1 - Mortgage Loans Owned

NONE

Schedule B - Part 2 - Mortgage Loans Acquired and Additions Made

NONE

Schedule B - Part 3 - Mortgage Loans Disposed, Transferred or Repaid

NONE

Schedule BA - Part 1 - Other Long-Term Invested Assets Owned **NONE**

Schedule BA - Part 2 - Other Long-Term Invested Assets Acquired and Additions Made NONE

Schedule BA - Part 3 - Other Long-Term Invested Assets Disposed, Transferred or Repaid NONE

Schedule D - Part 1 - Long Term Bonds Owned

NONE

Schedule D - Part 2 - Section 1 - Preferred Stocks Owned NONE

SCHEDULE D - PART 2 - SECTION 2

Showing All COMMON STOCKS Owned December 31 of Current Year																	
1	2	Cod	es	5	6	Fa	ir Value	9		Dividends		Cha	ange in Book/Ad	ljusted Carrying Va	alue	17	18
		3	4			7	8	F	10	11	12	13	14	15	16		
		_				Rate	•										
						Per									Total Foreign		
						Share							Current Year's		Exchange		
					Book/	Used to						Unrealized	Other-Than-	Total Change in	Change in	NAIC	
CUSIP				Number	Adjusted	Obtain				Amount	Nonadmitted	Valuation	Temporary	Book/Adjusted	Book/Adjusted	Market	
Identi-			For-	of	Carrying	Fair			Declared	Received	Declared But	Increase/	Impairment	Carrying Value	Carrying	Indicator	Date
fication	Description	Code	eian	Shares	Value	Value	Fair Value	Actual Cost	but Unpaid	During Year	Unpaid	(Decrease)	Recognized	(13 - 14)	Value	(a)	Acquired
	·	Code	eigii						but Oripaiu		Oripaiu		necognized	(- /	value	(a)	
024936-60-1 024936-10-6	American Century VP Income & Growth Fund			2,612,505.904	23,564,803	9.020 10.010	23,564,803	19,215,197		2,497,656		(4, 120, 226)		(4, 120, 226)		A	12/27/2018
030372-82-5	American Funds Asset Allocation Fund - 2				7,690,183	21.080	7,690,183	7,711,589		516,724		(231,700)		(856, 106)		A	12/31/2018
030372-81-7	American Funds Asset Affocation Fund - 2			188,024.063	8,442,280	44.900	8,442,280	8,126,260		780,630		(904, 100)		(904, 100)		۸	12/12/2018
25155X-40-4	DWS Small Cap Index VIP - A			235,739.616	3,529,022	14.970	3,529,022	3,564,326		319, 120		(756, 250)		(756,250)		Δ	12/31/2018
922175-50-0	Fidelity VIP 2 Contra Fund - Initial			4,672,104.945	150, 114, 732	32.130	150,114,732	133, 127, 936		16,387,773		(24,940,585)		(24,940,585)		Δ	12/19/2018
922175-30-2	Fidelity VIP Fund 2 Index 500 Fund			2.570	649	252.460	649	714		45		(65)		(65)		Α	12/19/2018
355150-59-0	Franklin Small Cap Value VIP Fund			235,029.397	3,431,429	14.600	3,431,429	4,346,161		693,349		(1,097,472)		(1,097,472)		Α	12/28/2018
380987-50-3	Goldman Sachs Strategic Growth Fund			403.058.796	3.941.915	9.780	3,941,915	5,063,259		1.973.078		(2,019,958)		(2,019,958)		Α	12/28/2018
00888X-10-4	INVESCO VI Diversified Dividend Fund Series I		<u> </u>	192,399.172	4,559,860	23.700	4,559,860	4,804,796		295,379		(654, 395)		(654,395)		Α	09/20/2018
008892-41-6	INVESCO VI Health Care Fund Series I (4452)		ļ	371,821.861	8,704,350	23.410	8,704,350	10,364,930		1,226,532		(1, 108, 747)		(1,108,747)		A	09/20/2018
008892-32-5	INVESCO VI Technology Fund Series I (4455)		ļ	259, 153.012	5,680,634	21.920	5,680,634	5,312,865		291,847		(375,513)		(375,513)		A	12/03/2018
471021-69-1	Janus Henderson VIT Balanced Portfolio - Service .			96,936.829	3,449,982	35.590	3,449,982	3, 194,004		171,110		(141,227)		(141,227)		A	12/28/2018
471021-86-5	Janus Henderson VIT Forty Portfolio - Inst				13,702,837	35.200	13,702,837	14,228,843		2,072,643		(1,735,343)		(1,735,343)		A	12/27/2018
471021-30-3	Janus Henderson VIT Global Res Portfolio - Inst			180,345.468	8,499,682	47 . 130	8,499,682	5,905,110		109,366		(742, 443)		(742,443)		A	12/28/2018
55273F-40-7	MFS Investors Trust Fund			6,569.126	177,695	27.050	177,695	175,983		9,799		(20, 173)		(20, 173)		A	12/17/2018
	MFS New Discovery Series Fund			47,825.143	835,027	17.460	835,027	813,537		123,201		(138,060)		(138,060)		A	11/08/2018
553097-57-7	MML Aggressive Allocation Fund			2,474,410.193	22,764,574	9.200	22,764,574	26,443,171		1,636,215		(3,612,314)		(3,612,314)		A	12/31/2018
553097-27-0	MML American Funds Core Allocation Fund - Svc 1			1,016,677.473	11, 163, 119	10.980	11, 163, 119	12,462,045		1,006,243		(1,517,771)		(1,517,771)		A	12/31/2018
553097-29-6	MML American Funds Growth Fund - Svc 1			308,498.016	3,921,010	12.710	3,921,010	4, 199, 869		490,868		(532, 479)		(532,479)		A	12/31/2018
553097-28-8 553097-61-9	MML American Funds International Fund - Svc 1			233,561.4932.532.409.413	2, 118, 403	9.070 9.120	2,118,403 23,095,574	2,413,87126.577,469		97,873		(422,966)		(422,966)		A	12/31/2018
	MML Balanced Allocation Fund MML Blend Fund		l	3,887,086,503	23,095,574 79,094,250	20.350	23,095,574	26,5/7,469		1,528,837 7.852.267		(2,556,137)		(2,556,137)		A	11/20/2018 12/18/2018
	MML Blue Chip Growth Fund		····	2,056,459.147		14.600		32,274,593		6,379,399		(5,731,676)		(5,731,676)		A	12/18/2018
553097-62-7	MML Conservative Allocation Fund			1.887.205.289	17.418.905	9.230	17.418.905	19.278.521		877.310		(1,439,593)		(1,439,593)		Δ	08/30/2018
	MML Equity Fund			2,589,735.941	62,573,218	24.160	62,573,218	61,164,742		11,461,081		(17,950,632)		(17,950,632)		Δ	12/17/2018
	MML Equity Income Fund			1.799.161.851	18.063.585	10.040	18.063.585	20 . 122 . 186		2,470,225		(4,223,833)		(4, 223, 833)		Α	11/05/2018
553097-85-8	MML Equity Index Fund				17,096,290	28.090	17,096,290	13, 199, 421		992,953		(1,835,008)		(1,835,008)		Α	12/31/2018
553097-84-1	MML Equity Index Fund - Class II			1,378,136.421	38,725,633	28.100	38,725,633	27.687.804		2,258,382		(4,114,973)		(4, 114, 973)		A	12/24/2018
553097-18-9	MML Focused Equity Service Class 1			117,012.183	602,613	5. 150	602,613	952,278		378,496		(356,849)		(356,849)		Α	08/29/2018
553097-65-0	MML Foreign Fund			977,563.782	9,042,465	9.250	9,042,465	9,230,915		242,721		(1,907,572)		(1,907,572)		A	12/11/2018
553097-16-3	MML Fundamental Growth Service Class 1			46,512.553	425,590	9. 150	425,590	541,526		130,505		(134,726)		(134,726)		A	12/31/2018
553097-23-9	MML Fundamental Value Service Class 1			96,692.675	1, 176, 750	12.170	1, 176, 750	1,395,655		142,743		(274,063)		(274,063)		A	08/29/2018
553097-63-5	MML Global Fund - Class II			1, 102, 907.839	11,558,474	10.480	11,558,474	11,946,348		1,749,143		(2,918,859)		(2,918,859)		A	08/29/2018
553097-75-9	MML Growth & Income Fund			1,685,305.446	27,554,744	16.350	27,554,744	16,046,617		271,841		(1,775,327)		(1,775,327)		A	12/17/2018
	MML Growth Allocation Fund			5,878,696.149	49,087,113	8.350	49,087,113	59,389,794		4,481,156		(7,929,868)		(7,929,868)		A	08/30/2018
	MML High Yield Fund - Svc 1			381,283.393	3,446,802	9.040	3,446,802	3,797,977		226,972		(338,688)		(338,688)		A	12/18/2018
553097-76-7	MML Income & Growth Fund			3, 122, 455.877	26,509,650	8.490	26,509,650	31, 166, 031		7,745,088		(10,961,636)		(10,961,636)		A	08/29/2018
55312G-20-0 553097-14-8	MML Inflation-Protected and Income Fund			1,259,931.310	12,246,532	9.720	12,246,532	13,560,216		407,223		(529, 293)		(529,293)		A	12/18/2018
553097-14-8	MML International Equity Fund Service Class I MML Large Cap Growth Fund		1	11,061.579 1,512,388.430	97,784 14,639,920	8.840 9.680	97,784 14,639,920	127,31316,826,471		2,787 1,286,975	·	(31,878)		(31,878)		۸	12/31/2018 08/29/2018
55312G-30-9	MML Managed Bond Fund			2,981,422.010	35,581,769	11.930	35,581,769	37.970.364		1,278,131		(1,346,766)		(1,346,766)		۸	12/18/2018
	MML Managed Bond Fund - Svc			2,301,422.010	3,898,688	11.910	3.898.688	4, 103, 005		137,886		(1,340,700)		(142,639)		Δ	12/26/2018
	MML Managed Volatility Fund			1,082,316.748	12,878,028	11.900	12,878,028	12,898,136		173,731		(790,390)		(790,390)		Δ	08/29/2018
553097-69-2	MML Mid Cap Growth Fund			6,663,456,530	92.888.575	13.940	92,888,575	95.360.213		13,419,556		(14,934,742)		(14,934,742)		Δ	12/04/2018
553097-71-8	MML Mid Cap Value Fund]	4,727,563.456	44,202,718	9.350	44,202,718	52,737,704		6,437,307		(12,652,390)		(12,652,390)		A	12/03/2018
	MML Moderate Allocation Fund] <u> </u>	5,938,816.175	57,665,905	9.710	57,665,905	65,557,815		4,233,252		(7,411,423)		(7,411,423)		Α	10/24/2018
55312G-10-1	MML Market Fund			29,685,804.187	29,685,804	1.000	29,685,804	29,669,431		402,259						A	12/31/2018
55312G-74-7	MML Short-Duration Bond Fund - Svc 1		ļ	316,964.675	3,036,522	9.580	3,036,522	3,107,763		82,576		(41,841)		(41,841)		A	12/28/2018
	MML Small Cap Equity Fund		ļ	3,711,478.935	30,312,632	8.170	30,312,632	33,964,589		4,679,930		(7,957,528)		(7,957,528)		A	10/01/2018
	MML Small Cap Growth Equity Fund		ļ	1,350,997.530	17,315,394	12.820	17,315,394	20,598,914		2,246,789		(3, 140, 864)		(3, 140, 864)		A	08/29/2018
553097-25-4	MML Small Company Value Fund - Svc		 	61,989.756	832,522	13.430	832,522	973,522		67,417		(187, 434)		(187,434)		A	12/31/2018
	MML Small Mid Cap Value Fund		ļ <u>.</u>	1,059,944.779	11,256,614	10.620	11,256,614	11,853,968		1,544,176	ļ	(3,479,295)		(3,479,295)		A	12/03/2018
55312G-79-6	MML Strategic Emerging Markets Fund - Svc 1			138 , 139 . 295	1,399,351	10 . 130	1,399,351	1,403,940				(198,207)		(198,207)		A	12/31/2018

SCHEDULE D - PART 2 - SECTION 2

Showing All COMMON STOCKS Owned December 31 of Current Year

								OCKS Owned D	COCITIBOL OT OF								
1	2	Cod	es	5	6	Fa	ir Value	9		Dividends		Cha	ange in Book/Ad	justed Carrying Va	lue	17	18
		3	4			7	8		10	11	12	13	14	15	16		
						Rate											
						Per									Total Foreign		
						Share							Current Year's		Exchange		
					Book/	Used to						Unrealized	Other-Than-	Total Change in	3 -	NAIC	
CUSIP				Number	Adjusted	Obtain				Amount	Nonadmitted	Valuation	Temporary	Book/Adjusted			
Identi-			Гот	of	•	Fair			Declared	Received	Declared But					Indicator	Date
	December 41 - 12	0 1	For-	01	Carrying Value		E : \/ .	A -+ 1 O +				Increase/	Impairment	Carrying Value	Carrying	indicator	
fication	Description	Code	eign	Shares		Value	Fair Value	Actual Cost	but Unpaid	During Year	Unpaid	(Decrease)	Recognized	(13 - 14)	Value	(a)	Acquired
553097-24-7	MML Total Return Bond Fund - Service Class 1			184,942.437	1,860,521	10.060	1,860,521	1,907,413		32, 156		(33,879)		(33,879)		A	08/29/2018
	Oppenheimer Capital Appreciation Fund/VA			1,528,283.512	74, 121,750	48.500	74,121,750	72,662,374		6,747,084		(10,968,635)		(10,968,635)		A	11/14/2018
	Oppenheimer Conservative Balanced Fund/VA			1,906,744.733	27,514,326	14 . 430	27 ,514 ,326	24,655,153		1,312,601		(2,774,752)		(2,774,752)		A	06/19/2018
	Oppenheimer Discovery Mid Cap Growth Fund/VA			972,833.447	66,785,016	68.650	66,785,016	59,655,184		10,854,592		(14,660,767)		(14,660,767)		A	12/17/2018
	Oppenheimer Global Fund/VA			3,096,959.675	117,684,468	38.000	117,684,468	100,652,212		11,402,536		(28,640,939)		(28,640,939)		A	06/19/2018
	Oppenheimer Global Multi-Alternatives Fund VA Svc																
683811-69-9				6,079.143	57 , 569	9.470	57,569	61,587		100		(2,075)		(2,075)		A	12/28/2018
	Oppenheimer Global Strategic Income Fund/VA			9,925,247.836	46,251,655	4.660	46,251,655	52,045,190		2,479,495		(4,333,596)		(4,333,596)		A	12/11/2018
	Oppenheimer Government Fund/VA			8,481,626.540	8,481,627	1.000	8,481,627	8,481,627	6,732	114,951						A	12/14/2018
	Oppenheimer International Growth Fund/VA			14,684,577.574	29,809,692	2.030	29,809,692	29,632,800		1,053,658		(8, 103, 082)		(8, 103, 082)		A	11/01/2018
	Oppenheimer Main Street Fund/VA			2,818,250.857	75,557,305	26.810	75,557,305	73,739,213		8,693,797		(14,515,201)		(14,515,201)		A	12/04/2018
683811-20-2	Oppenheimer Total Return Bond Fund/VA			1,335,230.913	10,000,880	7.490	10,000,880	10,493,629		370,072		(424,559)		(424,559)		A	12/21/2018
693394-55-3	PIMCO Commodity Real Return Strategy Portfolio			209, 421.033	1,275,374	6.090	1,275,374	1,875,701		30,332		(236, 494)		(236,494)		A	12/26/2018
	T Rowe Mid-Cap Growth Portfolio Fund		ļ ļ	2, 104, 932. 175	49,886,893	23.700	49,886,893	51, 183, 609		7, 252, 440		(8,296,885)		(8, 296, 885)		A	12/31/2018
	T Rowe Price Blue Chip Growth Portfolio Fund		 	148,242.213	4,564,378	30.790	4,564,378	3, 178, 723		148,551		(138,462)		(138,462)		A	12/31/2018
77954T-10-0	T Rowe Price Equity Income Portfolio Fund			228,734.242	5,343,232	23.360	5,343,232	5,933,237		663,367		(1,211,406)		(1,211,406)		A	12/28/2018
355150-39-2	Templeton Foreign VIP Fund			307,974.329	3,923,593	12.740	3,923,593	4,381,340		123,606		(821,538)		(821,538)		A	12/20/2018
92914E-83-8	VY Clarion Global Real Estate Portfolio			198,293.584	2, 133, 639	10.760	2, 133, 639	2,353,720		121,073		(313, 839)		(313,839)		A	10/01/2018
9299999. Subtotal - Mutual Funds					1,596,964,984	XXX	1,596,964,984	1,589,231,644	6,732	167,725,467		(271,037,987)		(271,037,987)		XXX	XXX
9799999 - T	Total Common Stocks				1,596,964,984	XXX	1,596,964,984	1,589,231,644	6,732	167,725,467		(271,037,987)		(271,037,987)		XXX	XXX
9899999 - T	Total Preferred and Common Stocks				1,596,964,984	XXX	1,596,964,984	1,589,231,644	6,732	167,725,467		(271,037,987)		(271,037,987)		XXX	XXX

⁽a) For all common stock bearing the NAIC market indicator "U" provide: the number of such issues , the total \$ value (included in Column 8) of all such issues \$

Schedule D - PART 3 Showing All Long-Term Bonds and Stocks ACOLURED During Current Year

		Sho	wing All Long	g-Term Bonds and Sto	ocks ACQUIRED During Current Year				
1	2	3	4	-	5	6	7	8	9
									Paid for Accrued
CUSIP			Date			Number of Shares			Interest and
Identification	Description	Foreign	Acquired		Name of Vendor	of Stock	Actual Cost	Par Value	Dividends
8399997. Total - Bonds - F		. c.c.g	7 toqu o u		Traine of Foliaci	0. 0.00.	7 lotadi Odot		2111001100
8399998. Total - Bonds - F									
8399999. Total - Bonds	- ait 3								
	I Ota-dua Davit O							VVV	
8999997. Total - Preferred								XXX	
8999998. Total - Preferred								XXX	
8999999. Total - Preferred		1 1						XXX	
	ury VP Income & Growth Fund			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS		306,806.727	2,990,991 240.681		
	s Asset Allocation Fund - 2			VA. VASA - BUYS/SELLSVA. VASA - BUYS/SELLS			1, 160, 344		
	s Growth-Income Fund - 2			VA. VASA - BUYS/SELLS		21,638.745	1,075,367		
25155X-40-4 DWS Small Cap	Index VIP - A			VA, VASA - BUYS/SELLS			633,173		
922175-50-0 Fidelity VIP	2 Contra Fund - Initial			VA, VASA - BUYS/SELLS		571,153.733	19,465,228		
	Fund 2 Index 500 Fund		12/19/2018	VA, VASA - BUYS/SELLS			714		
	I Cap Value VIP Fund			VA, VASA - BUYS/SELLSVA, VASA - BUYS/SELLS			1,015,079 2,129,896		
	versified Dividend Fund Series I			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS			515,817		
	alth Care Fund Series I (4452)			VA, VASA - BUYS/SELLS			1,550,842		
008892-32-5 INVESCO VI Te	chnology Fund Series I (4455)		12/03/2018	VA, VASA - BUYS/SELLS			1,029,612		
	on VIT Balanced Portfolio - Service			VA, VASA - BUYS/SELLS		11,942.634	438,775		
	on VIT Forty Portfolio - Inst on VIT Global Res Portfolio - Inst			VA, VASA - BUYS/SELLS			2,309,381		
	on VII Global Hes Porttollo - Inst Trust Fund			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS			531,222		
	very Series Fund			VA. VASA - BUYS/SELLS		7.584.923	164.258		
	re Allocation Fund		12/31/2018	VA, VASA - BUYS/SELLS		.326,444.601	3,436,615		
	Funds Core Allocation Fund - Svc 1			VA, VASA - BUYS/SELLS		230,589.899	2,776,186		
	Funds Growth Fund - Svc 1			VA, VASA - BUYS/SELLS		59,566.267			
	Funds International Fund - Svc 1			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS			544,404 2.919.829		
55312G-40-8 MML Blend Fun				VA. VASA - BUYS/SELLS			11,051,956		
553097-74-2 MML Blue Chip	Growth Fund		12/11/2018	VA, VASA - BUYS/SELLS		473,942.959	8,204,373		
	ive Allocation Fund			VA, VASA - BUYS/SELLS		217,857.127	2, 148, 323		
	ınd			VA, VASA - BUYS/SELLS		476,817.379	13,575,180		
553097-77-5 MML Equity Ir 553097-85-8 MML Equity Ir	icome Fund			VA, VASA - BUYS/SELLSVASA - BUYS/SELLS		236,603.570 47,724.636	2,755,440 1,537,762		
	idex Fund - Class II			VA, VASA - BUYS/SELLS		109.572.623	3,502,443		
	quity Service Class 1			VA, VASA - BUYS/SELLS		73,546.425	415,270		
553097-65-0 MML Foreign F	und		12/11/2018	VA, VASA - BUYS/SELLS			851,671		
	al Growth Service Class 1			VA, VASA - BUYS/SELLS		20,585.995	230,012		
	al Value Service Class 1nd - Class II			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS			286,206 1,975,342		
	Income Fund			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS					
	location Fund			VA. VASA - BUYS/SELLS		927,349.581	8.741.352		
55312G-72-1 MML High Yiel	d Fund - Svc 1		12/18/2018	VA, VASA - BUYS/SELLS			584,660		
	Growth Fund			VA, VASA - BUYS/SELLS		836, 131.223	8,389,237		
	-Protected and Income Fund			VA, VASA - BUYS/SELLS		108,709.312	1,079,410		
	onal Equity Fund Service Class I		12/31/2018	VA, VASA - BUYS/SELLSVA, VASA - BUYS/SELLS			37 , 138		
55312G-30-9 MML Managed B			12/18/2018	VA. VASA - BUYS/SELLSVA. VASA - BUYS/SELLS		230.616.427	2.777.938		
	ond Fund - Svc		12/26/2018	VA, VASA - BUYS/SELLS		48,143.786	582,042		
	olatility Fund			VA, VASA - BUYS/SELLS		62,260.776	780 , 163		
	rowth_Fund			VA, VASA - BUYS/SELLS			14,485,866		
553097-71-8 MML Mid Cap V 553097-59-3 MML Moderate	alue Fund			VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS		613,406.551 750,307.971	6,909,244 8,003,738		
55312G-10-1 MML Market Fu				VA, VASA - BUYS/SELLSVA. VASA - BUYS/SELLS		6,111,925,130	6,003,738		<u> </u>
	ation Bond Fund - Svc 1			VA, VASA - BUYS/SELLS		43,616.730	421,421		
55312G-70-5 MML Small Cap	Equity Fund		10/01/2018	VA, VASA - BUYS/SELLS			5,519,375		
	Growth Equity Fund			VA, VASA - BUYS/SELLS		183,281.504	2,967,912		
	pany Value Fund - Svc	-		VA, VASA - BUYS/SELLS			165, 194		
	Cap Value Fund Emerging Markets Fund - Svc 1			VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS			1,899,086 398,158		
	urn Bond Fund - Service Class 1	-		VA, VASA - BUYS/SELLSVA, VASA - BUYS/SELLS		23,650.213	237,929		
683811-30-1 Oppenheimer C	apital Appreciation Fund/VA			VA, VASA - BUYS/SELLS		149,017.089			
683811-60-8 Oppenheimer C	onservative Balanced Fund/VA		06/19/2018	VA, VASA - BUYS/SELLS		99, 104. 153	1,511,440		

SCHEDULE D - PART 3

Showing All Long-Term Bonds and Stocks ACQUIRED During Current Year

1	2	3	4	5	6	7	8	9
								Paid for Accrued
CUSIP			Date		Number of Shares			Interest and
Identification	Description	Foreign	Acquired	Name of Vendor	of Stock	Actual Cost	Par Value	Dividends
	Oppenheimer Discovery Mid Cap Growth Fund/VA			VA, VASA - BUYS/SELLS	151, 179.532	12,254,307		
	Oppenheimer Global Fund/VA			VA, VASA - BUYS/SELLS	309,333.216	14, 136, 160		
	Oppenheimer Global Multi-Alternatives Fund VA Svc		12/28/2018	VA, VASA - BUYS/SELLS	243.188	2,394		
	Oppenheimer Global Strategic Income Fund/VA			VA, VASA - BUYS/SELLS	1, 170, 032.530	5,670,996		
	Oppenheimer Government Fund/VA			VA, VASA - BUYS/SELLS	1,147,714.240	1,147,714		
	Oppenheimer International Growth Fund/VA			VA, VASA - BUYS/SELLS	945, 151.226	2,327,660		
	Oppenheimer Main Street Fund/VA			VA, VASA - BUYS/SELLS	319,979.496	9,503,255		
	Oppenheimer Total Return Bond Fund/VA			VA, VASA - BUYS/SELLS	81,897.962	611,841		
	PIMCO Commodity Real Return Strategy Portfolio			VA, VASA - BUYS/SELLS	22,211.952	156,474		
	T Rowe Mid-Cap Growth Portfolio Fund			VA, VASA - BUYS/SELLS	327,603.101	7,974,231		
77954T-50-6	T Rowe Price Blue Chip Growth Portfolio Fund			VA, VASA - BUYS/SELLS	25,381.148	867,117		
	T Rowe Price Equity Income Portfolio Fund			VA, VASA - BUYS/SELLS	35,820.940	908,065		
355150-39-2	Templeton Foreign VIP Fund			VA, VASA - BUYS/SELLS	33,637.383	501,138		
92914E-83-8	VY Clarion Global Real Estate Portfolio		10/01/2018	VA, VASA - BUYS/SELLS	21,696.067	252,370		
9299999. Subto	otal - Common Stocks - Mutual Funds					230,648,070	XXX	
9799997. Total	- Common Stocks - Part 3					230,648,070	XXX	
9799998. Total	- Common Stocks - Part 5					48,230	XXX	
9799999. Total	- Common Stocks					230,696,300	XXX	
9899999. Total	- Preferred and Common Stocks					230,696,300	XXX	
9999999 - Tota	ıls		·			230,696,300	XXX	

Showing All Long-Term Bonds and Stocks SOLD, REDEEMED or Otherwise DISPOSED OF During Current Year

					Showing All L	ong-Term B	Sonds and Sto	ocks SOLD, F	REDEEMED	or Otherwis	se DISPOS	ED OF Dur	ing Current	Year						
1	2	3	4	5	6	7	8	9	10				Carrying Value		16	17	18	19	20	21
•	_	_			,			,		11	12	13	14	15						
														Total						
												Current	Total	Foreign					Bond	
												Year's	Change in	Exchange	Book/				Interest/	
									Prior Year		Current	Other-	Book/	Change in	Adjusted	Foreign			Stock	Stated
									Book/	Unrealized	Year's	Than-	Adjusted	Book/	Carrying	Exchange			Dividends	Con-
CUSIP					Number of				Adjusted	Valuation					Value at	Gain	Realized	Total Gain	Received	tractual
Identi-		Гот	Disposal	Nama	Shares of	Con-					(Amor-	Temporary	Carrying	Adjusted	Disposal		Gain (Loss)		During	Maturity
	Description	For-		Name			DV-l	A -41 O4	Carrying	Increase/	tization)/	Impairment	Value	Carrying		(Loss) on		(Loss) on		
fication	Description	eign	Date	of Purchaser	Stock	sideration	Par Value	Actual Cost	Value	Decrease	Accretion	Recognized	(11+12-13)	Value	Date	Disposal	on Disposal	Disposal	Year	Date
	Total - Bonds - Part 4																			XXX
	Total - Bonds - Part 5																			XXX
8399999.	Total - Bonds																			XXX
8999997.	Total - Preferred Stocks - Part 4						XXX													XXX
8999998.	Total - Preferred Stocks - Part 5						XXX													XXX
	Total - Preferred Stocks						XXX													XXX
024936-60-1	American Century VP Income & Growth Fund		12/31/2018	VA, VASA - BUYS/SELLS	165,934.272	1,709,049		1,335,876	1,777,156	(441,280)			(441,280)		1,335,876		373, 173	373, 173		
024936-10-6	American Century VP Value Fund		12/28/2018	VA, VASA - BUYS/SELLS	27,869.759	315,270		157,261	312,420	(155, 159)			(155 , 159)		157,261	ļ	158,008	158,008		
030372-82-5	American Funds Asset Allocation Fund - 2			. VA, VASA - BUYS/SELLS	48,435.941	1, 121,788		797,376	1, 137, 760	(340,384)			(340,384)		797,376		324,412	324,412		
030372-81-7	American Funds Growth-Income Fund - 2			. VA, VASA - BUYS/SELLS	24,844.141	1,263,144		702, 186	1,235,002	(532,816)			(532,816)		702, 186		560,958	560,958		
25155X-40-4 922175-50-0	DWS Small Cap Index VIP - A		12/28/2018 12/31/2018	. VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS	24,353.102	442, 181 20, 482, 038		265,671	445,418 21,377,386	(6,050,652)	·		(179,747)	 	265,671 15,317,733	·		176,510 5,164,304		
922175-30-0	Fidelity VIP 2 Contra Fund - Initial		12/31/2018	. VA, VASA — BUYS/SELLS . VA, VASA — BUYS/SELLS	563,452.460	5, 169		15,317,733		(6,059,653)	l		(6,059,653)		4,763	l	5, 164,304	5, 164,304		
355150-59-0	Franklin Small Cap Value VIP Fund		12/31/2018	VA, VASA - BUYS/SELLS	49.132.563			939.178	972.825	(33,647)			(33,647)		939.178		(46,080)	(46.080)		
380987-50-3	Goldman Sachs Strategic Growth Fund			VA, VASA - BUYS/SELLS	12,049.339	252, 159		127,823	237,733	(109,911)			(109,911)		127,823		124,336	124,336		
	INVESCO VI Diversified Dividend Fund Series																			
00888X-10-4	. 1			. VA, VASA - BUYS/SELLS	40,672.825	1,084,938		766,746	1, 105, 487	(338,741)			(338,741)		766,746		318, 192	318 , 192		
008892-41-6	INVESCO VI Health Care Fund Series I (4452) .			. VA, VASA - BUYS/SELLS		1,803,502		1,286,428	1,789,489	(503, 061)			(503,061)		1,286,428		517,074	517,074		
008892-32-5	INVESCO VI Technology Fund Series I (4455) Janus Henderson VIT Balanced Portfolio -		12/31/2018	. VA, VASA - BUYS/SELLS	33,640.964	849,885		584,367	772,733	(188,366)			(188,366)		584,367		265,518	265,518		
471021-69-1	Service		12/31/2018	VA, VASA - BUYS/SELLS	17,381.996	645,943		500,272	644,698	(144, 426)			(144,426)		500,272		145,671	145,671		
471021-86-5	Janus Henderson VIT Forty Portfolio - Inst			VA, VASA - BUYS/SELLS	34,795.362	1,418,537		1, 145, 221	1,383,464	(238, 242)			(238, 242)		1, 145, 221		273,316	273,316		
	Janus Henderson VIT Global Res Portfolio -					, ,		,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,										
471021-30-3	Inst		12/31/2018	. VA, VASA - BUYS/SELLS	15,650.645	808,985		552,009	801,313	(249, 304)			(249,304)		552,009		256,976	256,976		
55273F-40-7	MFS Investors Trust Fund			. VA, VASA - BUYS/SELLS	372.707	11,257		9,904	11,207	(1,303)			(1,303)		9,904		1,353	1,353		
55273F-84-5	MFS New Discovery Series Fund			. VA, VASA - BUYS/SELLS	4,691.118	98,902		77,991	94,291	(16,300)			(16,300)		77,991		20,910	20,910		
553097-57-7	MML Aggressive Allocation Fund MML American Funds Core Allocation Fund -		12/21/2018	. VA, VASA - BUYS/SELLS	298,705.166	3, 170, 550		2,981,392	3, 190, 171	(208,779)			(208,779)		2,981,392		189, 158	189 , 158		
553097-27-0	Svc 1		12/28/2018	. VA, VASA - BUYS/SELLS	107.644.882	1,325,077		1, 169, 659	1,356,326	(186,666)			(186,666)		1, 169, 659		155,418	155 . 418		
553097-29-6	MML American Funds Growth Fund - Svc 1			VA, VASA - BUYS/SELLS	35,805.280	554,469		386,246	514,522	(128, 276)			(128,276)		386,246		168,223	168,223		
	MML American Funds International Fund - Svc																			
553097-28-8	1		12/28/2018	. VA, VASA - BUYS/SELLS	18,043.142	182,802		159,964	197,212	(37,247)	ļ		(37,247)		159,964	ļ	22,837	22,837		
553097-61-9	MML Balanced Allocation Fund		12/31/2018	. VA, VASA - BUYS/SELLS	358,353.591	3,589,336		3,774,021	3,640,872	133, 149	<u> </u>	ļ	133, 149		3,774,021	}	(184,685)	(184,685)		
55312G-40-8 553097-74-2	MML Blend Fund		12/31/2018 12/31/2018	. VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS	515,202.033	11,549,456		8,980,298	12,018,720 4,447,587	(3,038,422)			(3,038,422)		8,980,298 3,234,263		2,569,158 1,402,828	2,569,158 1,402,828		
553097-74-2	MML Conservative Allocation Fund			. VA, VASA - BUYS/SELLS VA, VASA - BUYS/SELLS	449,074.922	4,425,827		4,843,223	4,447,587	(1,213,324)			(1,213,324)	` 	4,843,223		(417,397)	(417,397)		
55312G-50-7	MML Equity Fund			VA, VASA - BUYS/SELLS	290, 103.334			6.542.624	9, 192, 040	(2,649,417)			(2,649,417)		6,542,624		2,216,832	2,216,832		
553097-77-5	MML Equity Income Fund		12/31/2018	VA, VASA - BUYS/SELLS	232,626.955	2,795,788		1,886,739	2,907,837	(1,021,098)			(1,021,098)		1,886,739		909,049	909,049		
553097-85-8	MML Equity Index Fund			VA, VASA - BUYS/SELLS	77,523.840	2,431,632		1,256,781	2,404,014	(1,147,234)			(1,147,234)		1,256,781		1, 174,851	1, 174, 851		
553097-84-1	MML Equity Index Fund - Class II		12/31/2018	. VA, VASA - BUYS/SELLS	97,997.233	3, 103, 630		1,738,256	3,038,894	(1,300,638)			(1,300,638)		1,738,256		1,365,374	1,365,374		
553097-18-9 553097-65-0	MML Focused Equity Service Class 1		12/31/2018	VA, VASA - BUYS/SELLS	31,508.393	385,840		455,858	394,485	61,373	}		61,373	·	455,858	}	(70,018)	(70,018)		
553097-65-0	MML Foreign Fund		12/31/2018	. VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS	161,981.211	1,741,461		1,431,945 52,152	1,822,289	(390,343)	l		(390,343)		1, 431, 945 52, 152	l	309,516	309,516		
553097-10-3			12/21/2018	VA, VASA - BUYS/SELLS	9,358.556	138.080		138.926	142,250	(3,324)			(3,324)		138.926		(846)	(846)		
553097-63-5	MML Global Fund - Class II		12/31/2018	VA, VASA - BUYS/SELLS	110,948.993	1,415,299		1,013,053	1,475,622	(462,568)			(462,568)		1,013,053		402,246	402,246		
553097-75-9			12/31/2018	. VA, VASA - BUYS/SELLS	213, 180.027	3,807,447		2,224,339	3,707,201	(1,482,862)	ļ	ļ	(1,482,862)		2,224,339	ļ	1,583,108	1,583,108		
553097-58-5	MML Growth Allocation Fund			. VA, VASA - BUYS/SELLS	693,233.468	6,651,514		6,867,388	6,759,026	108,362			108,362		6,867,388		(215,874)	(215,874).		
55312G-72-1	MML High Yield Fund - Svc 1			VA, VASA - BUYS/SELLS	64,864.482	635,408			646,699	56,656			56,656		703,355		(67,948)	(67,948)		
553097-76-7 55312G-20-0	MML Income & Growth Fund			. VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS	368,985.322 246,546.724	4,376,708 2,446,874		3,629,048 2,697,605	4,693,493 2,504,915	(1,064,446)	<u> </u>		(1,064,446)		3,629,048 2,697,605	<u> </u>	747,660 (250,730)	747 ,660 (250 ,730)		
JJJ 12U-2U-U	MML Inflation-Protected and Income Fund MML International Equity Fund Service Class		12/01/2018	. VA, VAOA - BUTO/SELLS	240,040.724	∠,440,8/4			2,504,915	192,090	l		192,090			 	(200,730)	(200,730)		
553097-14-8			12/28/2018	VA, VASA - BUYS/SELLS	4,596.949	52,311		48,721	54,750	(6,028)			(6,028)		48,721	L	3,590	3.590		
553097-73-4	MML Large Cap Growth Fund		12/31/2018	VA, VASA - BUYS/SELLS _	221,141.220	2,405,438		2,142,947	2,364,000	(221,053)			(221,053)		2,142,947		262,492	262,492		
55312G-30-9	MML Managed Bond Fund			VA, VASA - BUYS/SELLS	451,888.994	5,469,049		5,755,880	5,610,094	145,786			145,786		5,755,880	ļ	(286,831)	(286,831)		
	MML Managed Bond Fund - Svc			. VA, VASA - BUYS/SELLS	99,404.919	1, 196, 600		1,288,230	1,231,664	56,566			56,566		1,288,230		(91,630)	(91,630)		
553097-88-2	MML Managed Volatility Fund		12/31/2018 _	. VA, VASA - BUYS/SELLS	199,424.432	2,500,769		2,227,869	2,519,698	(291,829)			(291,829)		2,227,869		272,900	272,900		

SCHEDULE D - PART 4

Showing All Long-Term Bonds and Stocks SOLD, REDEEMED or Otherwise DISPOSED OF During Current Year

					Showing All L	₋ong-+erm B	onas ana Sid	ICKS SOLD, F	REDEEMED	or Otherwis	e 015205	ED OF Dur	ing Current	rear						
1	2	3	4	5	6	7	8	9	10	C	hange In Bo	ok/Adjusted (Carrying Value)	16	17	18	19	20	21
										11	12	13	14	15						
														Total						
												Current	Total	Foreign					Bond	
												Year's	Change in	Exchange	Book/				Interest/	
									Prior Year		Current	Other-			Adjusted	Foreign			Stock	Stated
											Current		Book/	Change in					Dividends	
OLIGIB									Book/	Unrealized	Year's	_ Than-	Adjusted	Book/	Carrying	Exchange		T		Con-
CUSIP					Number of				Adjusted	Valuation	(Amor-	Temporary	Carrying	Adjusted	Value at	Gain	Realized	Total Gain	Received	tractual
ldenti-		For-		Name	Shares of	Con-			Carrying	Increase/	tization)/	Impairment	Value	Carrying	Disposal	(Loss) on	Gain (Loss)	(Loss) on	During	Maturity
fication	Description	eign		of Purchaser	Stock	sideration	Par Value	Actual Cost	Value	Decrease	Accretion	Recognized	(11+12-13)	Value	Date	Disposal	on Disposal	Disposal	Year	Date
	MML Mid Cap Growth Fund			. VA, VASA - BUYS/SELLS	919,974.713	15, 196, 748		9,852,963	14,894,391	(5,041,428)			(5,041,428)		9,852,963		5,343,785	5,343,785		
	MML Mid Cap Value Fund		12/31/2018 _	. VA, VASA - BUYS/SELLS	670,034.956	7,779,748		6,410,614	8, 134, 224	(1,723,611).			(1,723,611)		6,410,614		1,369,134	1,369,134		
	MML Moderate Allocation Fund			_ VA, VASA - BUYS/SELLS	721,039.456	7,793,602		7,450,421	7,931,434	(481,013)			(481,013)		7,450,421		343, 182	343 , 182		
	MML Market Fund		12/31/2018 _	_ VA, VASA - BUYS/SELLS _	8 , 187 , 488 . 100	8, 187, 488		8, 180, 253	8, 187, 488	(7,236)			(7,236)		8, 180, 253		7,236			
55312G-74-7	MML Short-Duration Bond Fund - Svc 1		12/31/2018 .	. VA, VASA - BUYS/SELLS	62, 136.017	602,256		612, 165	603,962	8,203			8,203	·	612, 165		(9,909)	(9,909)		ļ ¹
55312G-70-5	MML Small Cap Equity Fund			. VA, VASA - BUYS/SELLS	455,279.762	4,718,260		3,386,643	4,687,275	(1,300,632).			(1,300,632)		3,386,643		1,331,617	1,331,617		
553097-20-5	MML Small Cap Growth Equity Fund			_ VA, VASA - BUYS/SELLS	146,044.209	2,283,167		2,357,849	2, 187, 237	170,612			170,612		2,357,849		(74,681)	(74,681)		
	MML Small Company Value Fund - Svc MML Small Mid Cap Value Fund			. VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS	18,559.422	300,675 1.859,725		304,434	304,931	(497)			(497)	}	304,434		(3,759)	(3,759)		ļl
	MML Strategic Emerging Markets Fund - Svc 1		12/31/2018 .	. VA, VASA - BUYS/SELLS		1,859,725			1,888,592	(1,008,248).			(1,008,248)		880,345		9/9,380	9/9,380		
553126-79-6	MML Strategic Emerging Markets Fund - Svc i		12/20/2019	VA. VASA - BUYS/SELLS	15.677.290	181.703		151,383	181,700	(30,317)			(30,317)		151.383		30,320	30,320		
	MML Total Return Bond Fund - Service Class 1		12/20/2010 _	. VA, VAOA - DUTO/OLLLO		101,703				(30,317).			(30,317)		131,000		, 00, 320	, 020 , 020		
553097-24-7	mine foral fletarii bolla falla Gervice orass f		12/31/2018	VA. VASA - BUYS/SELLS	23.933.684	240,723		250,218	245,799	4,419			4,419		250,218		(9,495)	(9, 495)		
	Oppenheimer Capital Appreciation Fund/VA			VA. VASA - BUYS/SELLS	168.717.904	9,468,234		6,655,546	9,397,587	(2,742,041)			(2,742,041)		6,655,546		2,812,688	2,812,688		
	Oppenheimer Conservative Balanced Fund/VA			VA. VASA - BUYS/SELLS	259.521.811	3.998.940		3,219,643	4,131,587	(911,944)			(911,944)		3,219,643		779.297	779,297		
	Oppenheimer Discovery Mid Cap Growth Fund/VA		Ī			, , , , , , , , , , , , , , , , , , , ,		, ,		, ,			, ,							
683811-50-9			12/31/2018 .	. VA, VASA - BUYS/SELLS	97,784.853			4,398,037	8,234,462	(3,836,425)			(3,836,425)		4,398,037		3,707,912	3,707,912		
683811-70-7	Oppenheimer Global Fund/VA		12/31/2018 .	. VA, VASA - BUYS/SELLS	351,675.318	16, 192, 760		11,001,616	16,676,444	(5,674,827)			(5,674,827)		11,001,616		5, 191, 144	5, 191, 144		
	Oppenheimer Global Multi-Alternatives Fund																			
	VA Svc			_ VA, VASA - BUYS/SELLS	141.609	1,385		1,517	1,389	127			127		1,517		(132)			
	Oppenheimer Global Strategic Income Fund/VA .			. VA, VASA - BUYS/SELLS	1,661,225.555	8, 144, 737		8,759,411	8,522,087	237,324			237,324		8,759,411		(614,674)	(614,674)		
	Oppenheimer Government Fund/VA			. VA, VASA - BUYS/SELLS	2,220,787.257	2,220,787		2,220,787	2,220,787						2,220,787					
	Oppenheimer International Growth Fund/VA			. VA, VASA - BUYS/SELLS	1,765,869.688	4,360,427		2,900,927	4,573,602	(1,672,676).			(1,672,676)		2,900,927		1,459,500	1,459,500		
	Oppenheimer Main Street Fund/VA			_ VA, VASA - BUYS/SELLS	372,504.100	11,489,864		7,374,316	12,013,257	(4,638,942)			(4,638,942)		7,374,316		4,115,549	4, 115, 549		
	Oppenheimer Total Return Bond Fund/VA		12/31/2018 _	_ VA, VASA - BUYS/SELLS _	310,726.137	2,345,062		2,881,242	2,432,986	448, 256			448,256	}	2,881,242	·	(536, 180)	(536, 180)		ļ
	PIMCO Commodity Real Return Strategy		12/20/2010	VA. VASA - BUYS/SELLS	52.312.695	373,237			378,744	354,502			354,502		733,246		(360,009)	(360,009)		1
77954T-40-7	T Rowe Mid-Cap Growth Portfolio Fund			. VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS	153.251.668	4.577.655		3, 141, 957	4,329,360	(1, 187, 402)			(1, 187, 402)		3.141.957		1,435,698	1,435,698		
773041 40 7	T Rowe Price Blue Chip Growth Portfolio Fund			IN, THON DOTO/OLLEG		т, 5/ / ,000		, 171,337		(1,107,402).			(1,107,402)		, ודו, עודו, ע		1,400,000	1,700,000		
77954T-50-6			12/27/2018	VA. VASA - BUYS/SELLS	35.510.133	1,224,013		544.002	1, 108, 626	(564,624)			(564,624)		544.002	1	680,011	680.011		1 '
77954T-10-0	T Rowe Price Equity Income Portfolio Fund			VA. VASA - BUYS/SELLS	29.054.559	840,878		584,519	850.427	(265, 908)			(265,908)		584,519		256.359	256.359		
	Templeton Foreign VIP Fund			VA, VASA - BUYS/SELLS	32,745.994	475,770		467,491	506,581	(39,089)			(39,089)		467,491		8,279	8,279		
	VY Clarion Global Real Estate Portfolio			VA, VASA - BUYS/SELLS	31,656.564	373,586		362,368	393,491	(31, 123)			(31, 123)		362,368		11,219	11,219		
9299999. S	ubtotal - Common Stocks - Mutual F	unds	•	*		236,338,204	XXX	187,285,500	240,496,867	(53,211,368)			(53,211,368)		187,285,500		49,052,704	49,052,704		XXX
	otal - Common Stocks - Part 4					236.338.204	XXX	187,285,500	240,496,867	(53,211,368)			(53,211,368)		187,285,500	1	49.052.704	49,052,704		XXX
	otal - Common Stocks - Part 5					43,557	XXX	48,230	240,430,007	(33,211,300)			(30,211,300)		48,230	 	(4,673)			XXX
							XXX		040 400 007	(50.044.000)		-	(50.044.000)	+						
	otal - Common Stocks					236,381,761		187,333,730	240,496,867	(53,211,368)			(53,211,368)		187,333,730	1	49,048,031	49,048,031		XXX
	otal - Preferred and Common Stocks	S				236,381,761	XXX	187,333,730	240,496,867	(53,211,368)			(53,211,368)		187,333,730	1	49,048,031	49,048,031		XXX
9999999 - T	Totals Totals					236,381,761	XXX	187,333,730	240,496,867	(53,211,368)			(53,211,368)		187,333,730		49,048,031	49,048,031		XXX

SCHEDULE D - PART 5

Showing All Long-Term Bonds and Stocks ACQUIRED During Year and Fully DISPOSED OF During Current Year

					SHOWING A	ii Long-Term bond	is and Stocks	ACQUINED	Duning te	ai aiiu Fuliy	DISPUSED	OF Duning	j Guireiii Te	ai						
1	2	3	4	5	6	7	8	9	10	11	С	hange in Bo	ok/Adjusted C	arrying Valu	е	17	18	19	20	21
							-		-		12	13	14	15	16	1	_	_	1	
					1								1		Total	1				
													Current	Total	Foreign					
							D \/-l								3					
							Par Value						Year's	Change in	Exchange	l			Interest	5
							(Bonds)			Book/		Current	Other-	Book/	Change in	Foreign			and	Paid for
							or			Adjusted	Unrealized	Year's	Than-	Adjusted	Book/	Exchange	Realized		Dividends	Accrued
CUSIP							Number of			Carrying	Valuation	(Amort-	Temporary	Carrying	Adjusted	Gain	Gain	Total Gain	Received	Interest
Identi-		For-	Date		Disposal	Name of	Shares		Consid-	Value at	Increase/	ization)/	Impairment	Valu (12 +	Carrying	(Loss) on	(Loss) on	(Loss) on	During	and
fication	Description	eign	Acquired	Name of Vendor	Date	Purchaser	(Stock)	Actual Cost	eration	Disposal	(Decrease)	Accretion	Recognized	13 - 14)	Value	Disposal	Disposal	Disposal	Year	Dividends
8399998	Fotal - Bonds		•		•		` '			i i	,			,		·				
	Total - Preferred Stocks						I .						1		1	1			1	
	Fidelity VIP Fund 2 Index 500 Fund		01/02/2018	VA. VASA - BUYS/SELLS	12/03/2018	VA. VASA - BUYS/SELLS	0.909	249	260	249							11	11		
022110 00 2	INVESCO VI Diversified Dividend Fund		1.3 // 02/ 20 /0 .	, , , , , , , , , , , , , , , , , , ,																
00888X-10-4			09/20/2018 .	VA, VASA - BUYS/SELLS	10/22/2018	VA, VASA - BUYS/SELLS	0.059	2	1	2							(1)	(1		
	INVESCO VI Technology Fund Series I																			
008892-32-5	(4455)			VA, VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS	71.764		1,793	1,803							(10)	(10		
	MFS Investors Trust Fund					VA, VASA - BUYS/SELLS	9.427	290	284	290							(6)	(6		
	MML Aggressive Allocation Fund					VA, VASA - BUYS/SELLS	0.102		1	1										
	MML Balanced Allocation Fund		01/25/2018 _			VA, VASA - BUYS/SELLS	2,404.920		22,384	25,059							(2,675)			
	MML Blue Chip Growth Fund		08/29/2018 _	VA, VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS	615.738	10,517	9,427	10,517							(1,090)	(1,090		
	MML Equity Index Fund		08/29/2018 .	VA, VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS	0.024	1	1	1										
	MML Focused Equity Service Class 1					VA, VASA - BUYS/SELLS	1.474		8	8										
	MML Foreign Fund					VA, VASA - BUYS/SELLS	522.031		4,923	5,571							(648)	(648		
	MML Fundamental Value Service Class 1		08/29/2018 _	VA, VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS	0.085	·]												
	MML Global Fund - Class II MML Income & Growth Fund		08/29/2018 .	VA, VASA - BUYS/SELLSVA. VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS		ļ1]	ļ []]										
	MML Large Cap Growth Fund					VA, VASA - BUYS/SELLS VA. VASA - BUYS/SELLS	0.703		/	J										
	MML Managed Volatility Fund			VA, VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS	174.394		2.126	2.202							(76)	(76		
	MML Small Cap Growth Equity Fund			VA, VASA - BUYS/SELLS		VA. VASA - BUYS/SELLS	0.089		ر بر الالال	1,202			·				(10)			
330037-20-3	Oppenheimer Discovery Mid Cap Growth		230/23/2010 .	TA, THON DOTO/ GLELO		In, thun DUID/OLLLO														
683811-50-9			06/19/2018	VA, VASA - BUYS/SELLS	11/05/2018	VA, VASA - BUYS/SELLS		285	263	285							(22)	(22		
	Oppenheimer Main Street Fund/VA			VA, VASA - BUYS/SELLS		VA, VASA - BUYS/SELLS		2,231	2,075	2,231							(156)	(156		
9299999. 9	Subtotal - Common Stocks - Mutu	al Fur	nds	-	•	•	*	48,230	43,557	48,230							(4,673)	(4,673		
9799998.	Fotal - Common Stocks							48,230	43.557	48.230							(4,673)	(4,673		
9899999.	Total - Preferred and Common St	ocks						48,230	43,557	48,230							(4,673)	(4,673	İ	
9999999 -	Totals							48.230	43.557	48.230							(4,673)	(4.673		

Schedule DA - Part 1 - Short-Term Investments Owned

NONE

Schedule DB - Part A - Section 1 - Options, Caps, Floors, Collars, Swaps and Forwards Open NONE

Schedule DB - Part A - Section 2 - Options, Caps, Floors, Collars, Swaps and Forwards Terminated **NONE**

Schedule DB - Part B - Section 1 - Futures Contracts Open NONE

Schedule DB - Part B - Section 1B - Brokers with whom cash deposits have been made NONE

Schedule DB - Part B - Section 2 - Futures Contracts Terminated **NONE**

Schedule DB - Part D - Section 1 - Counterparty Exposure for Derivative Instruments Open NONE

Schedule DB - Part D-Section 2 - Collateral for Derivative Instruments Open - Pledged By NONE

Schedule DB - Part D-Section 2 - Collateral for Derivative Instruments Open - Pledged To NONE

Schedule DL - Part 1 - Reinvested Collateral Assets Owned NONE

Schedule DL - Part 2 - Reinvested Collateral Assets Owned NONE

Schedule E - Part 1 - Month End Depository Balances **NONE**

Schedule E - Part 2 - Cash Equivalents Owned **NONE**

Schedule E - Part 3 - Special Deposits

NONE

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