



LIFE AND ACCIDENT AND HEALTH COMPANIES/FRATERNAL BENEFIT SOCIETIES - ASSOCIATION EDITION - SEPARATE ACCOUNTS

# ANNUAL STATEMENT

FOR THE YEAR ENDED DECEMBER 31, 2020

OF THE CONDITION AND AFFAIRS OF THE SEPARATE ACCOUNTS OF THE

## MML Bay State Life Insurance Company

NAIC Group Code 0435 0435 NAIC Company Code 70416 Employer's ID Number 43-0581430  
(Current) (Prior)

Organized under the Laws of Connecticut, State of Domicile or Port of Entry CT

Country of Domicile United States of America

Type of Separate Accounts Insulated [  ] Non-Insulated [  ]

Incorporated/Organized 04/01/1935 Commenced Business 07/01/1894

Statutory Home Office 100 Bright Meadow Boulevard, Enfield, CT, US 06082  
(Street and Number) (City or Town, State, Country and Zip Code)

Main Administrative Office 1295 State Street  
(Street and Number) Springfield, MA, US 01111 413-788-8411  
(City or Town, 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 or Town, State, Country and Zip Code)

Primary Location of Books and Records 1295 State Street  
(Street and Number) Springfield, MA, US 01111 413-788-8411  
(City or Town, State, Country and Zip Code) (Area Code) (Telephone Number)

Internet Website Address www.massmutual.com

Statutory Statement Contact Yin Wang, 617-695-4071  
(Name) (Area Code) (Telephone Number)  
YWang67@massmutual.com, 413-226-4086  
(E-mail Address) (FAX Number)

### OFFICERS

President and Chief Executive Officer Roger William Crandall Treasurer Todd Garrett Picken  
Secretary Akintokunbo Akinbajo Apointed Actuary Vy Quoc Ho #

### OTHER

Elizabeth Ward Chicares, Executive Vice President and Chief Financial Officer Michael Robert Fanning, Executive Vice President Melvin Timothy Corbett, Executive Vice President

### DIRECTORS OR TRUSTEES

Roger William Crandall - Chairman Michael Robert Fanning Elizabeth Ward Chicares  
Michael James O'Connor

State of Massachusetts SS:  
County of Hampden

The officers of this reporting entity being duly sworn, each depose and say that they are the described officers of said reporting entity, and that on the reporting period stated above, all of the herein described assets were the absolute property of the said reporting entity, free and clear from any liens or claims thereon, except as herein stated, and that this statement, together with related exhibits, schedules and explanations therein contained, annexed or referred to, is a full and true statement of all the assets and liabilities and of the condition and affairs of the said reporting entity as of the reporting period stated above, and of its income and deductions therefrom for the period ended, and have been completed in accordance with the NAIC Annual Statement Instructions and Accounting Practices and Procedures manual except to the extent that: (1) state law may differ; or, (2) that state rules or regulations require differences in reporting not related to accounting practices and procedures, according to the best of their information, knowledge and belief, respectively. Furthermore, the scope of this attestation by the described officers also includes the related corresponding electronic filing with the NAIC, when required, that is an exact copy (except for formatting differences due to electronic filing) of the enclosed statement. The electronic filing may be requested by various regulators in lieu of or in addition to the enclosed statement.

Roger William Crandall Akintokunbo Akinbajo Todd Garrett Picken  
President and Chief Executive Officer Secretary Treasurer

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_  
a. Is this an original filing? ..... Yes [  ] No [  ]  
b. If no,  
1. State the amendment number.....  
2. Date filed .....  
3. Number of pages attached.....

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**ASSETS**

	Current Year			Prior Year
	1 General Account Basis	2 Fair Value Basis	3 Total (Cols. 1 + 2)	4 Total
1. Bonds (Schedule D).....	1,096,070,695	2,253,478,756	3,349,549,451	3,295,959,649
2. Stocks (Schedule D):				
2.1 Preferred stocks .....				
2.2 Common stocks .....		1,195,555,641	1,195,555,641	1,077,772,555
3. Mortgage loans on real estate (Schedule B).....	10,194,089		10,194,089	11,478,238
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. Cash (\$ .....1,882 Schedule E - Part 1), and cash equivalents (\$ .....201,274,415, Schedule E - Part 2).....	65,902,245	135,374,052	201,276,297	153,437,263
6. Short-term investments (Schedule DA).....	3,113,880	82,866,677	85,980,557	57,419,173
7. Derivatives (Schedule DB).....	78,256	113,223	191,479	60,693
8. Other invested assets (Schedule BA).....				
9. Securities lending reinvested collateral assets (Schedule DL).....				
10. Aggregate write-ins for invested assets .....				
11. Subtotals, cash and invested assets (Lines 1 to 10).....	1,175,359,165	3,667,388,349	4,842,747,514	4,596,127,571
12. Investment income due and accrued .....	6,496,692	5,702,435	12,199,127	14,102,915
13. Receivables for securities .....	1,320,479	2,564,728	3,885,207	8,023,650
14. Net adjustment in assets and liabilities due to foreign exchange rates .....				
15. Aggregate write-ins for other than invested assets.....				
16. Total (Lines 11 to 15)	1,183,176,337	3,675,655,511	4,858,831,848	4,618,254,136
<b>DETAILS OF WRITE-INS</b>				
1001. ....				
1002. ....				
1003. ....				
1098. Summary of remaining write-ins for Line 10 from overflow page .....				
1099. Totals (Lines 1001 thru 1003 plus 1098)(Line 10 above)				
1501. ....				
1502. ....				
1503. ....				
1598. Summary of remaining write-ins for Line 15 from overflow page .....				
1599. Totals (Lines 1501 thru 1503 plus 1598)(Line 15 above)				

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**LIABILITIES AND SURPLUS**

	Current Year			Prior Year
	1 General Account Basis	2 Fair Value Basis	3 Total (Cols. 1 + 2)	4 Total
1. Aggregate reserve for life, annuity and accident and health contracts (Exhibit 3, Line 9999999, Col. 2) .....	1,199,802,200	3,643,855,030	4,843,657,230	4,612,580,094
2. Liability for deposit-type contracts (Exhibit 4, Line 9, Col. 1) .....				
3. Interest Maintenance Reserve .....	880,287		880,287	1,080,191
4. Charges for investment management, administration and contract guarantees due or accrued .....	258,387	359,967	618,354	575,303
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 \$ .....374,745 accrued expense allowances recognized in reserves) .....	(19,317,753)	4,907,049	(14,410,704)	(2,509,778)
11. Remittances and items not allocated .....	1,131		1,131	14,931
12. Derivatives .....	44,607	41,251	85,858	20,177
13. Payable for securities .....	1,507,478	26,337,646	27,845,124	6,167,333
14. Payable for securities lending .....				
15. Net adjustment in assets and liabilities due to foreign exchange rates .....				
16. Aggregate write-ins for liabilities .....		154,568	154,568	325,885
17. Total liabilities (including \$ .....(13,792,350) due or accrued net transfers to or (from) the general account) .....	1,183,176,337	3,675,655,511	4,858,831,848	4,618,254,136
18. Contributed surplus .....				
19. Aggregate write-ins for special surplus funds .....				
20. Unassigned funds .....				
21. Surplus (Lines 18 through 20) .....				
22. Totals	1,183,176,337	3,675,655,511	4,858,831,848	4,618,254,136
<b>DETAILS OF WRITE-INS</b>				
1601. Claims in course of settlement .....		144,589	144,589	320,294
1602. Annuitant mortality fluctuation fund .....		9,979	9,979	5,591
1603. ....				
1698. Summary of remaining write-ins for Line 16 from overflow page .....				
1699. Totals (Lines 1601 thru 1603 plus 1698)(Line 16 above)		154,568	154,568	325,885
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)				

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**SUMMARY OF OPERATIONS**

	1 Current Year	2 Prior Year
1. Transfers to Separate Accounts:		
1.1 Net premiums and annuity considerations for life and accident and health contracts	27,732,469	29,014,095
1.2 Considerations for supplementary contracts with life contingencies		
1.3 Aggregate write-ins for other transfers to Separate Accounts		
1.4 Totals (Lines 1.1 to 1.3)	27,732,469	29,014,095
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)		
3. Net investment income and capital gains and losses	348,087,084	392,177,003
4. Aggregate write-ins for other income		
5. Totals (Lines 1.4 to 4)	375,819,553	421,191,098
<b>DEDUCT:</b>		
6. Transfers from the Separate Account on account of contract benefits:		
6.1 Death benefits	39,932,347	36,115,052
6.2 Matured endowments		
6.3 Annuity benefits	1,935,615	1,020,205
6.4 Payments on supplementary contracts with life contingencies		
6.5 Accident and health benefits		
6.6 Surrender benefits and withdrawals for life contracts	32,953,830	41,400,351
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits		
7. Transfers on account of policy loans	2,950,756	6,796,504
8. Net transfer of reserves from or (to) Separate Accounts	(87,013)	1,077,802
9. Other transfers from the Separate Accounts:		
9.1 Federal and foreign income taxes incurred		
9.2 Change in expense allowances recognized in reserves	(18,699)	(28,886)
9.3 Aggregate write-ins for other transfers from Separate Accounts		
10. Subtotals (Lines 6.1 to 9.3)	77,666,836	86,381,028
11. Fees associated with charges for investment management, administration and contract guarantees	67,246,897	65,372,796
12. Increase in aggregate reserve for life and accident and health contracts	231,077,136	269,800,714
13. Increase in liability for deposit-type contracts		
14. Increase in reserve for future federal income taxes		
15. Aggregate write-ins for reserves and funds	(171,317)	(363,440)
16. Totals (Lines 10 to 15)	375,819,553	421,191,098
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)		
<b>SURPLUS ACCOUNT</b>		
18. Surplus, December 31, prior year		
19. Net gain from operations (Line 17)		
20. Surplus contributed or (withdrawn) during year		
21. Change in reserve on account of change in valuation basis, (increase) or decrease		
22. Transfer from Separate Accounts of the change in expense allowances recognized in Line 21		
23. Aggregate write-ins for gains and losses in surplus		
24. Surplus, December 31, current year (Page 3, Line 21)		
<b>DETAILS OF WRITE-INS</b>		
01.301.		
01.302.		
01.303.		
01.398. Summary of remaining write-ins for Line 1.3 from overflow page		
01.399. Totals (Lines 01.301 thru 01.303 plus 01.398)(Line 1.3 above)		
0401.		
0402.		
0403.		
0498. Summary of remaining write-ins for Line 4 from overflow page		
0499. Totals (Lines 0401 thru 0403 plus 0498)(Line 4 above)		
06.701.		
06.702.		
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.		
09.302.		
09.303.		
09.398. Summary of remaining write-ins for Line 9.3 from overflow page		
09.399. Totals (Lines 09.301 thru 09.303 plus 09.398)(Line 9.3 above)		
1501. Claims in course of settlement	(175,706)	(364,346)
1502. Change in annuitant mortality fluctuation fund	4,389	906
1503.		
1598. Summary of remaining write-ins for Line 15 from overflow page		
1599. Totals (Lines 1501 thru 1503 plus 1598)(Line 15 above)	(171,317)	(363,440)
2301.		
2302.		
2303.		
2398. Summary of remaining write-ins for Line 23 from overflow page		
2399. Totals (Lines 2301 thru 2303 plus 2398)(Line 23 above)		

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company  
**ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - SUMMARY**

	1	2	3	4	5	6	7
	Total	Individual Life	Group Life	Individual Annuities	Group Annuities	Accident and Health	Other Lines of Business
1. Transfers to Separate Accounts:							
1.1 Net premiums and annuity considerations for life and accident and health contracts	27,732,469	27,726,517		5,952			
1.2 Considerations for supplementary contracts with life contingencies		XXX	XXX			XXX	
1.3 Aggregate write-ins for other transfers to Separate Accounts							
1.4 Totals (Lines 1.1 to 1.3)	27,732,469	27,726,517		5,952			
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)							
3. Net investment income and capital gains and losses	348,087,084	289,376,227	51,341,513	7,369,345			
4. Aggregate write-ins for other income							
5. Totals (Lines 1.4 to 4)	375,819,553	317,102,743	51,341,513	7,375,297			
DEDUCT:							
6. Transfers from the Separate Account on account of contract benefits:							
6.1 Death benefits	39,932,347	32,462,451	7,469,896			XXX	
6.2 Matured endowments						XXX	
6.3 Annuity benefits	1,935,615	XXX	XXX	1,935,615		XXX	
6.4 Payments on supplementary contracts with life contingencies		XXX	XXX			XXX	
6.5 Accident and health benefits		XXX	XXX	XXX	XXX		
6.6 Surrender benefits and withdrawals for life contracts	32,953,830	30,289,335		2,664,494		XXX	
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits							
7. Transfers on account of policy loans	2,950,756	2,950,756				XXX	
8. Net transfer of reserves from or (to) Separate Accounts	(87,013)	1,671,446	(1,777,535)	19,077			
9. Other transfers from the Separate Accounts:							
9.1 Federal and foreign income taxes incurred						XXX	
9.2 Change in expense allowances recognized in reserves	(18,699)	(15,351)		(3,348)		XXX	
9.3 Aggregate write-ins for other transfers from Separate Accounts							
10. Subtotals (Lines 6.1 to 9.3)	77,666,836	67,358,637	5,692,360	4,615,838			
11. Fees associated with charges for investment management, administration and contract guarantees	67,246,897	61,142,060	5,572,748	532,089			
12. Increase in aggregate reserve for life and accident and health contracts	231,077,136	188,777,751	40,076,405	2,222,980			
13. Increase in liability for deposit-type contracts						XXX	
14. Increase in reserve for future federal income taxes							
15. Aggregate write-ins for reserves and funds	(171,317)	(175,706)		4,389			
16. Totals (Lines 10 to 15)	375,819,553	317,102,743	51,341,513	7,375,297			
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)							
18. Policies/certificates in force end of year	31,005	27,370	3,067	568			
<b>DETAILS OF WRITE-INS</b>							
01.301.							
01.302.							
01.303.							
01.398. Summary of remaining write-ins for Line 1.3 from overflow page							
01.399. Totals (Lines 01.301 thru 01.303 plus 01.398) (Line 1.3 above)							
0401.							
0402.							
0403.							
0498. Summary of remaining write-ins for Line 4 from overflow page							
0499. Totals (Lines 0401 thru 0403 plus 0498) (Line 4 above)							
06.701.							
06.702.							
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.							
09.302.							
09.303.							
09.398. Summary of remaining write-ins for Line 9.3 from overflow page							
09.399. Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above)							
1501. Claims in course of settlement	(175,706)	(175,706)					
1502. Change in annuitant mortality fluctuation fund	4,389			4,389			
1503.							
1598. Summary of remaining write-ins for Line 15 from overflow page							
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)	(171,317)	(175,706)		4,389			

**ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company**  
**ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - INDIVIDUAL LIFE INSURANCE (b)**

	1	2	3	4	5	6	7	8	9	10	11
	Total	Industrial Life	Whole Life	Term Life	Indexed Life	Universal Life	Universal Life with Secondary Guarantees	Variable Life	Variable Universal Life	Credit Life (N/A Fraternal)	Other Individual Life
1. Transfers to Separate Accounts:											
1.1 Net premiums for life contracts (a)	27,726,517	XXX						170,227	27,556,290	XXX	
1.2 Considerations for supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1.3 Aggregate write-ins for other transfers to Separate Accounts		XXX							XXX	XXX	
1.4 Totals (Lines 1.1 to 1.3)	27,726,517	XXX						170,227	27,556,290	XXX	
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)		XXX								XXX	
3. Net investment income and capital gains and losses	289,376,227	XXX						639,755	288,736,471	XXX	
4. Aggregate write-ins for other income		XXX								XXX	
5. Totals (Lines 1.4 to 4)	317,102,743	XXX						809,982	316,292,761	XXX	
DEDUCT:											
6. Transfers from the Separate Account on account of contract benefits:											
6.1 Death benefits	32,462,451	XXX						252,423	32,210,028	XXX	
6.2 Matured endowments		XXX								XXX	
6.3 Annuity benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6.4 Payments on supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6.5 Accident and health benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6.6 Surrender benefits and withdrawals for life contracts	30,289,335	XXX						411,194	29,878,141	XXX	
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits		XXX								XXX	
7. Transfers on account of policy loans	2,950,756	XXX						(26,248)	2,977,004	XXX	
8. Net transfer of reserves from or (to) Separate Accounts	1,671,446	XXX						(1,373)	1,672,819	XXX	
9. Other transfers from the Separate Accounts:											
9.1 Federal and foreign income taxes incurred		XXX								XXX	
9.2 Change in expense allowances recognized in reserves	(15,351)	XXX							(15,351)	XXX	
9.3 Aggregate write-ins for other transfers from Separate Accounts		XXX								XXX	
10. Subtotals (Lines 6.1 to 9.3)	67,358,637	XXX						635,996	66,722,641	XXX	
11. Fees associated with charges for investment management, administration and contract guarantees	61,142,060	XXX						332,288	60,809,773	XXX	
12. Increase in aggregate reserve for life and accident and health contracts	188,777,751	XXX						(158,302)	188,936,053	XXX	
13. Increase in liability for deposit-type contracts		XXX								XXX	
14. Increase in reserve for future federal income taxes		XXX								XXX	
15. Aggregate write-ins for reserves and funds	(175,706)	XXX							(175,706)	XXX	
16. Totals (Lines 10 to 15)	317,102,743	XXX						809,982	316,292,761	XXX	
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)		XXX								XXX	
18. Policies/certificates in force end of year	27,370	XXX						270	27,100	XXX	
<b>DETAILS OF WRITE-INS</b>											
01.301.		XXX								XXX	
01.302.		XXX								XXX	
01.303.		XXX								XXX	
01.398. Summary of remaining write-ins for Line 1.3 from overflow page		XXX								XXX	
01.399. Totals (Lines 01.301 thru 01.303 plus 01.398) (Line 1.3 above)		XXX								XXX	
0401.		XXX								XXX	
0402.		XXX								XXX	
0403.		XXX								XXX	
0498. Summary of remaining write-ins for Line 4 from overflow page		XXX								XXX	
0499. Totals (Lines 0401 thru 0403 plus 0498) (Line 4 above)		XXX								XXX	
06.701.		XXX								XXX	
06.702.		XXX								XXX	
06.703.		XXX								XXX	
06.798. Summary of remaining write-ins for Line 6.7 from overflow page		XXX								XXX	
06.799. Totals (Lines 06.701 thru 06.703 plus 06.798) (Line 6.7 above)		XXX								XXX	
09.301.		XXX								XXX	
09.302.		XXX								XXX	
09.303.		XXX								XXX	
09.398. Summary of remaining write-ins for Line 9.3 from overflow page		XXX								XXX	
09.399. Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above)		XXX								XXX	
1501. Claims in course of settlement	(175,706)	XXX							(175,706)	XXX	
1502.		XXX								XXX	
1503.		XXX								XXX	
1598. Summary of remaining write-ins for Line 15 from overflow page		XXX								XXX	
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)	(175,706)	XXX							(175,706)	XXX	

(a) Include premium amounts for preneed plans included in Line 1  
(b) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

5.1

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company  
**ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - GROUP LIFE INSURANCE (c)**  
**(N/A Fraternal)**

	1	2	3	4	5	6	7	8
	Total	Whole Life	Term Life	Variable Life	Universal Life	Variable Universal Life	Credit Life	Other Group Life (a)
1. Transfers to Separate Accounts:								
1.1 Net premiums for life contracts (b)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1.2 Considerations for supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1.3 Aggregate write-ins for other transfers to Separate Accounts	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
1.4 Totals (Lines 1.1 to 1.3)	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)							XXX	
3. Net investment income and capital gains and losses	51,341,513					51,341,513	XXX	
4. Aggregate write-ins for other income							XXX	
5. Totals (Lines 1.4 to 4)	51,341,513					51,341,513	XXX	
DEDUCT:								
6. Transfers from the Separate Account on account of contract benefits:								
6.1 Death benefits	7,469,896					7,469,896	XXX	
6.2 Matured endowments							XXX	
6.3 Annuity benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6.4 Payments on supplementary contracts with life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6.5 Accident and health benefits	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
6.6 Surrender benefits and withdrawals for life contracts							XXX	
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits							XXX	
7. Transfers on account of policy loans							XXX	
8. Net transfer of reserves from or (to) Separate Accounts	(1,777,535)					(1,777,535)	XXX	
9. Other transfers from the Separate Accounts:								
9.1 Federal and foreign income taxes incurred							XXX	
9.2 Change in expense allowances recognized in reserves							XXX	
9.3 Aggregate write-ins for other transfers from Separate Accounts							XXX	
10. Subtotals (Lines 6.1 to 9.3)	5,692,360					5,692,360	XXX	
11. Fees associated with charges for investment management, administration and contract guarantees	5,572,748					5,572,748	XXX	
12. Increase in aggregate reserve for life and accident and health contracts	40,076,405					40,076,405	XXX	
13. Increase in liability for deposit-type contracts							XXX	
14. Increase in reserve for future federal income taxes							XXX	
15. Aggregate write-ins for reserves and funds							XXX	
16. Totals (Lines 10 to 15)	51,341,513					51,341,513	XXX	
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)							XXX	
18. Policies/certificates in force end of year	3,067					3,067	XXX	
<b>DETAILS OF WRITE-INS</b>								
01.301. ....							XXX	
01.302. ....							XXX	
01.303. ....							XXX	
01.398. Summary of remaining write-ins for Line 1.3 from overflow page							XXX	
01.399. Totals (Lines 01.301 thru 01.303 plus 01.398) (Line 1.3 above)							XXX	
0401. ....							XXX	
0402. ....							XXX	
0403. ....							XXX	
0498. Summary of remaining write-ins for Line 4 from overflow page							XXX	
0499. Totals (Lines 0401 thru 0403 plus 0498) (Line 4 above)							XXX	
06.701. ....							XXX	
06.702. ....							XXX	
06.703. ....							XXX	
06.798. Summary of remaining write-ins for Line 6.7 from overflow page							XXX	
06.799. Totals (Lines 06.701 thru 06.703 plus 06.798) (Line 6.7 above)							XXX	
09.301. ....							XXX	
09.302. ....							XXX	
09.303. ....							XXX	
09.398. Summary of remaining write-ins for Line 9.3 from overflow page							XXX	
09.399. Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above)							XXX	
1501. ....							XXX	
1502. ....							XXX	
1503. ....							XXX	
1598. Summary of remaining write-ins for Line 15 from overflow page							XXX	
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)							XXX	

(a) Includes the following amounts for FEGLI/SGLI: Line 1 \_\_\_\_\_, Line 10 \_\_\_\_\_, Line 16 \_\_\_\_\_, Line 23 \_\_\_\_\_, Line 24 \_\_\_\_\_  
 (b) Include premium amounts for preneed plans included in Line 1 \_\_\_\_\_  
 (c) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected. \_\_\_\_\_

**ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company**  
**ANALYSIS OF OPERATIONS BY LINES OF BUSINESS - INDIVIDUAL ANNUITIES (a)**

	1 Total	Deferred			6 Life Contingent Payout (Immediate and Annuityizations)	7 Other Annuities
		2 Fixed Annuities	3 Indexed Annuities	4 Variable Annuities With Guarantees		
1. Transfers to Separate Accounts:						
1.1 Net annuity considerations for annuity contracts	5,952			5,952		
1.2 Considerations for supplementary contracts with life contingencies		XXX	XXX	XXX	XXX	XXX
1.3 Aggregate write-ins for other transfers to Separate Accounts						
1.4 Totals (Lines 1.1 to 1.3)	5,952			5,952		
2. Transfers on account of deposit-type contracts (including \$ deposits less \$ withdrawals)						
3. Net investment income and capital gains and losses	7,369,345			7,369,345		
4. Aggregate write-ins for other income						
5. Totals (Lines 1.4 to 4)	7,375,297			7,375,297		
DEDUCT:						
6. Transfers from the Separate Account on account of contract benefits:						
6.1 Death benefits						
6.2 Matured endowments						
6.3 Annuity benefits	1,935,615			1,935,615		
6.4 Payments on supplementary contracts with life contingencies		XXX	XXX	XXX	XXX	XXX
6.5 Accident and health benefits	XXX	XXX	XXX	XXX	XXX	XXX
6.6 Surrender benefits and withdrawals for life contracts	2,664,494			2,664,494		
6.7 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits						
7. Transfers on account of policy loans						
8. Net transfer of reserves from or (to) Separate Accounts	19,077			19,077		
9. Other transfers from the Separate Accounts:						
9.1 Federal and foreign income taxes incurred						
9.2 Change in expense allowances recognized in reserves	(3,348)			(3,348)		
9.3 Aggregate write-ins for other transfers from Separate Accounts						
10. Subtotals (Lines 6.1 to 9.3)	4,615,838			4,615,838		
11. Fees associated with charges for investment management, administration and contract guarantees	532,089			532,089		
12. Increase in aggregate reserve for life and accident and health contracts	2,222,980			2,222,980		
13. Increase in liability for deposit-type contracts						
14. Increase in reserve for future federal income taxes						
15. Aggregate write-ins for reserves and funds	4,389			4,389		
16. Totals (Lines 10 to 15)	7,375,297			7,375,297		
17. Net gain from operations (including \$ unrealized capital gains) (Line 5 minus Line 16)						
18. Policies/certificates in force end of year	568			568		
<b>DETAILS OF WRITE-INS</b>						
01.301.						
01.302.						
01.303.						
01.398. Summary of remaining write-ins for Line 1.3 from overflow page						
01.399. Totals (Lines 01.301 thru 01.303 plus 01.398) (Line 1.3 above)						
0401.						
0402.						
0403.						
0498. Summary of remaining write-ins for Line 4 from overflow page						
0499. Totals (Lines 0401 thru 0403 plus 0498) (Line 4 above)						
06.701.						
06.702.						
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.						
09.302.						
09.303.						
09.398. Summary of remaining write-ins for Line 9.3 from overflow page						
09.399. Totals (Lines 09.301 thru 09.303 plus 09.398) (Line 9.3 above)						
1501. Change in annuitant mortality fluctuation fund	4,389			4,389		
1502.						
1503.						
1598. Summary of remaining write-ins for Line 15 from overflow page						
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15 above)	4,389			4,389		

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.



Analysis of Operations by Lines of Business - Group Annuities

**N O N E**

Analysis of Operations by Lines of Business - Accident and Health

**N O N E**

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company  
**ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - INDIVIDUAL LIFE INSURANCE (a)**

	1	2	3	4	5	6	7	8	9	10	11
	Total	Industrial Life	Whole Life	Term Life	Indexed Life	Universal Life	Universal Life With Secondary Guarantees	Variable Life	Variable Universal Life	Credit Life (N/A Fraternal)	Other Individual Life
1. Reserve December 31 of prior year	3,415,415,496	XXX						11,172,967	3,404,242,529	XXX	
2. Tabular net premiums and considerations for annuities and supplementary contracts with life contingencies	27,726,517	XXX						170,227	27,556,290	XXX	
3. Increase or (decrease) from investment results after provision for federal income taxes	289,376,226	XXX						639,755	288,736,471	XXX	
4. Tabular less actual reserve released		XXX								XXX	
5. Increase in reserve on account of change in valuation basis		XXX								XXX	
5.1 Change in excess of VM-20 deterministic/stochastic reserve over net premium reserve		XXX								XXX	
6. Other increases (net)		XXX								XXX	
7. Totals (Lines 1 to 6)	3,732,518,239	XXX						11,982,949	3,720,535,290	XXX	
8. Net transfer of reserves from or (to) Separate Accounts	1,671,446	XXX						(1,373)	1,672,819	XXX	
9. Tabular cost	47,127,282	XXX						305,999	46,821,283	XXX	
10. Reserves released by death	32,462,451	XXX						252,423	32,210,028	XXX	
11. Reserves released by other terminations (net)	30,289,335	XXX						411,194	29,878,141	XXX	
12. Transfers on account of annuity and supplementary contract payments involving life contingencies	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13. Charges for investment management, administration and contract guarantees	14,014,779	XXX						26,289	13,988,490	XXX	
14. Aggregate write-ins for other decreases in reserves	2,759,699	XXX						(26,248)	2,785,947	XXX	
15. Total deductions (Lines 8 to 14)	128,324,992	XXX						968,284	127,356,708	XXX	
16. Reserve December 31 of current year	3,604,193,247	XXX						11,014,665	3,593,178,582	XXX	
<b>Cash Surrender Value and Policy Loans</b>											
17. CSV ending balance December 31, current year	3,516,594,459	XXX						6,939,660	3,509,654,799	XXX	
18. Amount available for policy loans based upon Line 17 CSV	2,813,275,567	XXX						5,551,728	2,807,723,839	XXX	
<b>DETAILS OF WRITE-INS</b>											
1401. Change in policy loans	2,950,756	XXX						(26,248)	2,977,004	XXX	
1402. Claims in course of settlement	(175,706)	XXX							(175,706)	XXX	
1403. Change in surrender charge offset	(15,351)	XXX							(15,351)	XXX	
1498. Summary of remaining write-ins for Line 14 from overflow page		XXX								XXX	
1499. TOTALS (Lines 1401 thru 1403 plus 1498) (Line 14 above)	2,759,699	XXX						(26,248)	2,785,947	XXX	

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected.

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company  
**ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - GROUP LIFE INSURANCE (a)**  
**(N/A Fraternal)**

	1	2	3	4	5	6	7	8
	Total	Whole Life	Term Life	Universal Life	Variable Life	Variable Universal Life	Credit Life	Other Group Life
1. Reserve December 31 of prior year .....	1,159,725,795					1,159,725,795	XXX	
2. Tabular net premiums and considerations .....							XXX	
3. Increase or (decrease) from investment results after provision for federal income taxes .....	51,341,513					51,341,513	XXX	
4. Tabular less actual reserve released .....							XXX	
5. Increase in reserve on account of change in valuation basis .....							XXX	
6. Other increases (net) .....							XXX	
7. Totals (Lines 1 to 6) .....	1,211,067,308					1,211,067,308	XXX	
8. Net transfer of reserves from or (to) Separate Accounts .....	(1,777,536)					(1,777,536)	XXX	
9. Tabular cost .....						XXX	XXX	
10. Reserves released by death .....	7,469,896					7,469,896	XXX	
11. Reserves released by other terminations (net) .....							XXX	
12. Transfers on account of annuity and supplementary contract payments involving life contingencies .....	XXX	XXX	XXX	XXX	XXX	XXX	XXX	XXX
13. Charges for investment management, administration and contract guarantees .....	5,572,748					5,572,748	XXX	
14. Aggregate write-ins for other decreases in reserves .....							XXX	
15. Total deductions (Lines 8 to 14) .....	11,265,108					11,265,108	XXX	
16. Reserve December 31 of current year .....	1,199,802,200					1,199,802,200	XXX	
<b>Cash Surrender Value and Policy Loans</b>								
17. CSV ending balance December 31, current year .....	1,169,158,235					1,169,158,235	XXX	
18. Amount available for policy loans based upon line 17 CSV .....	935,326,588					935,326,588	XXX	
<b>DETAILS OF WRITE-INS</b>								
1401. ....							XXX	
1402. ....							XXX	
1403. ....							XXX	
1498. Summary of remaining write-ins for Line 14 from overflow page .....							XXX	
1499. TOTALS (Lines 1401 thru 1403 plus 1498) (Line 14 above) .....							XXX	

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected. ....

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company  
**ANALYSIS OF INCREASE IN RESERVES DURING THE YEAR - INDIVIDUAL ANNUITIES (a)**

	1 Total	Deferred				6 Life Contingent Payout (Immediate and Annuityizations)	7 Other Annuities
		2 Fixed Annuities	3 Indexed Annuities	4 Variable Annuities With Guarantees	5 Variable Annuities Without Guarantees		
1. Reserve December 31 of prior year .....	37,438,803			37,438,803			
2. Tabular net premiums and considerations .....	5,952			5,952			
3. Increase or (decrease) from investment results after provision for federal income taxes .....	7,369,345			7,369,345			
4. Tabular less actual reserve released .....							
5. Increase in reserve on account of change in valuation basis .....							
6. Other increases (net) .....							
7. Totals (Lines 1 to 6) .....	44,814,100			44,814,100			
8. Net transfer of reserves from or (to) Separate Accounts .....	19,077			19,077			
9. Tabular cost .....							
10. Reserves released by death .....	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX	.XXX
11. Reserves released by other terminations (net) .....	2,664,494			2,664,494			
12. Transfers on account of annuity and supplementary contract payments involving life contingencies .....	1,935,615			1,935,615			
13. Charges for investment management, administration and contract guarantees .....	532,089			532,089			
14. Aggregate write-ins for other decreases in reserves .....	1,041			1,041			
15. Total deductions (Lines 8 to 14) .....	5,152,316			5,152,316			
16. Reserve December 31 of current year .....	39,661,784			39,661,784			
<b>Cash Surrender Value and Policy Loans</b>							
17. CSV ending balance December 31, current year .....	39,327,259			39,327,259			
18. Amount available for policy loans based upon line 17 CSV .....							
<b>DETAILS OF WRITE-INS</b>							
1401. Change in annuitant mortality fluctuation fund .....	4,389			4,389			
1402. Change in surrender charge offset .....	(3,348)			(3,348)			
1403. ....							
1498. Summary of remaining write-ins for Line 14 from overflow page .....							
1499. TOTALS (Lines 1401 thru 1403 plus 1498) (Line 14 above) .....	1,041			1,041			

(a) Indicate if blocks of business in run-off that comprise less than 5% of premiums and less than 5% of reserve and loans liability are aggregated with material blocks of business and which columns are affected. ....

Analysis of Increase in Reserves During the Year - Group Annuities

**N O N E**

Analysis of Reserves During the Year - Accident and Health

**N O N E**

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**EXHIBIT OF NET INVESTMENT INCOME**

	1 Collected During Year	2 Earned During Year
1. U.S. Government bonds	(a) 14,639,493	14,147,243
1.1 Bonds exempt from U.S. tax	(a)	
1.2 Other bonds (unaffiliated)	(a) 88,540,290	87,223,408
1.3 Bonds of affiliates	(a)	
2.1 Preferred stocks (unaffiliated)	(b)	
2.11 Preferred stocks of affiliates	(b)	
2.2 Common stocks (unaffiliated)	149,501,316	149,501,316
2.21 Common stocks of affiliates		
3. Mortgage loans	(c) 537,584	530,857
4. Real estate	(d)	
5. Contract loans		
6. Cash, cash equivalents and short-term investments	(e) 334,616	246,648
7. Derivative instruments	(f) 4,797,317	4,797,317
8. Other invested assets		
9. Aggregate write-ins for investment income	(2,184,465)	(2,184,465)
10. Total gross investment income	256,166,151	254,262,323
11. Investment expenses		(g)
12. Investment taxes, licenses and fees, excluding federal income taxes		(g)
13. Interest expense		(h)
14. Depreciation on real estate and other invested assets		(i)
15. Aggregate write-ins for deductions from investment income		
16. Total deductions (Lines 11 through 15)		
17. Net investment income (Line 10 minus Line 16)		254,262,323
<b>DETAILS OF WRITE-INS</b>		
0901. Miscellaneous	(2,384,369)	(2,384,369)
0902. Amortization of IMR	199,904	199,904
0903.		
0998. Summary of remaining write-ins for Line 9 from overflow page		
0999. Totals (Lines 0901 thru 0903 plus 0998) (Line 9, above)	(2,184,465)	(2,184,465)
1501.		
1502.		
1503.		
1598. Summary of remaining write-ins for Line 15 from overflow page		
1599. Totals (Lines 1501 thru 1503 plus 1598) (Line 15, above)		

- (a) Includes \$ 1,306,635 accrual of discount less \$ 2,753,688 amortization of premium and less \$ 3,252,929 paid for accrued interest on purchases.
- (b) Includes \$ accrual of discount less \$ amortization of premium and less \$ paid for accrued dividends on purchases.
- (c) Includes \$ 1,566 accrual of discount less \$ 28,222 amortization of premium and less \$ paid for accrued interest on purchases.
- (d) Includes \$ for company's occupancy of its own buildings; and excludes \$ interest on encumbrances.
- (e) Includes \$ 7,848 accrual of discount less \$ 23,108 amortization of premium and less \$ paid for accrued interest on purchases.
- (f) Includes \$ accrual of discount less \$ amortization of premium.
- (g) Includes \$ investment expenses and \$ investment taxes, licenses and fees, excluding federal income taxes, attributable to segregated and Separate Accounts.
- (h) Includes \$ interest on surplus notes and \$ interest on capital notes.
- (i) Includes \$ depreciation on real estate and \$ depreciation on other invested assets.

**EXHIBIT OF CAPITAL GAINS (LOSSES)**

	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	9,115,371		9,115,371	4,242,479	
1.1 Bonds exempt from U.S. tax					
1.2 Other bonds (unaffiliated)	(1,592,138)		(1,592,138)	45,923,639	
1.3 Bonds of affiliates					
2.1 Preferred stocks (unaffiliated)					
2.11 Preferred stocks of affiliates					
2.2 Common stocks (unaffiliated)	60,769,069		60,769,069	(27,479,198)	
2.21 Common stocks of affiliates					
3. Mortgage loans					
4. Real estate					
5. Contract loans					
6. Cash, cash equivalents and short-term investments	1,105,798		1,105,798		
7. Derivative instruments	1,674,638		1,674,638	65,105	
8. Other invested assets					
9. Aggregate write-ins for capital gains (losses)					
10. Total capital gains (losses)	71,072,738		71,072,738	22,752,025	
<b>DETAILS OF WRITE-INS</b>					
0901.					
0902.					
0903.					
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 <sup>(a)</sup>	Ordinary	Group
0100001. 58 CSO 4.00% Mod CRVM (issued 1983 to 1988)	11,014,665	11,014,665	
0100002. 80 CSO 5.50% CRVM (issued 1988 to 1992)	200,856,858	200,856,858	
0100003. 80 CSO 5.00% CRVM (issued 1993 to 1994)	644,711,544	644,711,544	
0100004. 80 CSO Account Value	3,947,412,381	2,747,610,181	1,199,802,200
0199999. Life Insurance: Totals	4,803,995,448	3,604,193,248	1,199,802,200
0200001. Deferred Annuity 4.75%-6.50% CARVM	39,329,044	39,329,044	
0200002. Annuity Reserve 4.00 % VA Valuation 82	332,739	332,739	
0299999. Annuities: Totals	39,661,783	39,661,783	
9999999. Totals (to Page 3, Line 1)	4,843,657,230	3,643,855,030	1,199,802,200

(a) Included in the above table are amounts of deposit-type contracts that originally contained a mortality risk. Amounts of deposit-type contracts that no longer contain a mortality risk in Column 2 are: Life Insurance \$ ..... ; Annuities \$ ..... ; Supplementary Contracts with Life Contingencies \$ ..... ; Accident and Health Contracts \$ ..... ; Miscellaneous Reserves \$ .....

**EXHIBIT 3 - INTERROGATORIES**

- 1.1 Has the reporting entity ever issued both participating and non-participating variable life insurance contracts?..... Yes [ ] No [ X ]
- 2.1 Does the reporting entity at present issue both participating and non-participating variable life insurance contracts?..... Yes [ ] No [ X ]
- 2.2 If not, state which kind is issued  
Non-participating .....
- 3.1 Is any surrender value promised in excess of the reserve as legally computed? ..... Yes [ ] No [ X ] N/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? ..... Yes [ ] No [ ] N/A [ X ]  
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).

**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	2	3	4
Description of Valuation Class	Valuation Basis Changed from	Valuation Basis Changed To	Increase in Actuarial Reserve Due to Change
<b>NONE</b>			
9999999 - Totals (Page 6, Line 5, Analysis of Increase in Reserve)			



Exhibit 4

**N O N E**

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**EXHIBIT 5 - RECONCILIATION OF CASH AND INVESTED ASSETS**

DEVELOPMENT OF INCREASE IN CASH		1 Amount
1. Transfers to Separate Accounts on account of:		
1.1 Net premiums and considerations for annuities and supplementary contracts with life contingencies .....		27,732,469
1.2 Aggregate write-ins for other transfers to Separate Accounts .....		
2. Deposits on deposit-type contract funds and other liabilities without life or disability contingencies .....		
3. Investment income collected .....		256,166,151
4. Consideration on disposal of short-term bonds net of purchases .....		(27,881,417)
5. Consideration on disposal of investments (excluding short-term bonds) .....		1,980,886,634
6. Aggregate write-ins for other increases in funds from operations .....		
7. Total (Lines 1 to 6) .....		2,236,903,836
8. Cost of investments acquired (excluding short-term bonds) .....		2,057,756,709
9. Transfers from Separate Accounts on account of contract benefits:		
9.1 Death benefits .....		38,165,511
9.2 Matured endowments .....		
9.3 Annuity benefits .....		1,935,615
9.4 Supplementary contract benefits with life contingencies .....		
9.5 Accident and health benefits .....		
9.6 Surrender benefits and withdrawals for life contracts .....		32,953,830
9.7 Policy loans (net) .....		2,950,756
9.8 Transfers of reserves (net) .....		13,562,050
9.9 Aggregate write-ins for other transfers from Separate Accounts on account of contract benefits .....		
10. Other transfers from Separate Accounts:		
10.1 Federal income taxes .....		
10.2 Aggregate write-ins for other transfers from Separate Accounts .....		352,679
11. Withdrawals on deposit-type contract funds and other liabilities without life or disability contingencies .....		
12. Investment expenses (Exhibit 1, Line 25) .....		
12.1 Fees associated with investment management, administration and contract guarantees .....		67,203,846
13. Investment taxes, licenses and fees, excluding federal income taxes (Exhibit 2, Line 9) .....		
14. Total (Lines 8 to 13) .....		2,214,880,996
15. Funds from operations (Line 7 minus Line 14) .....		22,022,840
16. Surplus contributed or (withdrawn) during year .....		
17. Aggregate write-ins for other changes in funds .....		
18. Total funds (includes \$ .....129,039,139 net transfers from general account) (Lines 15 to 17) .....		22,022,840
19. Increase in payable for investments acquired, net of receivable for investments sold .....		25,816,194
20. Decrease in policy loans .....		
21. Aggregate write-ins for other reconciling items .....		
22. Increase in cash (Line 18 to 21) .....		47,839,034
<b>RECONCILIATION BETWEEN YEARS</b>		
23. Cash and invested assets, December 31st of prior year .....		4,596,127,571
24. Increase in cash (Line 22) .....		47,839,034
25. Cost of invested assets acquired .....		2,283,161,652
26. Adjusted cost of assets disposed of .....		2,105,643,799
27. Increase in policy loans .....		
28. Accrual of discount less amortization of premium .....		(1,488,969)
29. Depreciation on real estate and other invested assets .....		
30. Increase in net unrealized gains .....		22,752,025
31. Aggregate write-ins for other reconciling items .....		
32. Cash and invested assets, December 31st of current year .....		4,842,747,514
<b>DETAILS OF WRITE-INS</b>		
01.201. ....		
01.202. ....		
01.203. ....		
01.298. Summary of remaining write-ins for Line 1.2 from overflow page .....		
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) .....		
09.901. ....		
09.902. ....		
09.903. ....		
09.998. Summary of remaining write-ins for Line 9.9 from overflow page .....		
09.999. Totals (Lines 09.901 thru 09.903 plus 09.998) (Line 09.9 above) .....		
10.201. Investment income recognized as a result of prepayment penalties and/or acceleration fees .....		338,878
10.202. Change in remittances and items not allocated .....		13,801
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) .....		352,679
1701. ....		
1702. ....		
1703. ....		
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 .....		
3199. Totals (Lines 3101 thru 3103 plus 3198) (Line 31 above) .....		

**EXHIBIT 6 - GUARANTEED INSURANCE AND ANNUITY PRODUCTS**

	1 Amount	2 Percent of Total
1. Aggregate reserve for life, annuity and accident and health contracts (Included in Exhibit 3):		
1.1 Life insurance .....	1,199,802,200	24.7
1.2 Annuities .....		
1.3 Supplementary contracts with life contingencies .....		
1.4 Accident and health .....		
1.5 Miscellaneous reserves .....		
1.6 Total .....	1,199,802,200	24.7
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) .....	(17,551,888)	(0.4)
4. Total liabilities associated with guarantees (Lines 1.6 + 2.6 + 3) .....	1,182,250,313	24.3
5. Total liabilities not associated with guarantees .....	3,676,581,535	75.7
6. Total Separate Accounts liabilities (Lines 4 + 5 = Page 3, Line 17)	4,858,831,848	100.0%

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**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 Product Identifier	Separate Account Assets		4 Guarantees Associated with the Product Yes/No	5 Seed Money	6 Fees and Expenses Due to the General Account	7 Additional Required Surplus Amounts
	2 Registered with SEC	3 Not Registered with SEC				
Stable Value Bank-owned Life Insurance .....		2,413,895,638	YES			
Bank-owned Life Insurance - Guaranteed .....		1,183,176,335	YES		26,681,599	
Individual Variable Universal Life .....	857,096,358		YES			
Corporate-owned Life Insurance .....		364,979,267	YES			
Individual Variable Annuity .....	39,684,251		YES			
Totals	896,780,609	3,962,051,240	XXX		26,681,599	

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 Product Identifier	Not Registered with SEC		
	2 Private Placement Variable Annuity	3 Private Placement Life Insurance	4 Other (Not PPVA or PPLI)
Stable Value Bank-owned Life Insurance .....			2,413,895,638
Bank-owned Life Insurance - Guaranteed .....			1,183,176,335
Corporate-owned Life Insurance .....			364,979,267
Totals			3,962,051,239

1.02 Did the reporting entity remit seed money, other fees and expenses or additional required surplus amounts to the general account during the current year? Yes [ X ] No [ ]

1.03 If yes, provide information on the total gross amount of seed money, other fees and expenses or additional required surplus amounts remitted to the general account during the current year (these amounts should not be reflected in the seed money totals in 1.01):

1.031 Seed Money.....\$ .....

1.032 Other Fees and Expenses.....\$ .....165,131

1.033 Additional Required Surplus Amounts ..\$ .....

1.04 Did the reporting entity receive seed money from the general account in the current year? Yes [ ] No [ X ]

1.05 If yes, provide information on the total gross amount of seed money received in the current year: (If amounts were both received and remitted in the current year, include the gross amounts in both 1.031 and 1.051.)

1.051 Seed Money Received.....\$ .....

1.06 Does the reporting entity consider any of the seed money reflected in separate accounts to be insulated from the general account? Yes [ ] No [ ] N/A [ X ]

1.07 If yes, provide information on the amount of seed money the reporting entity considers insulated from the general account:

1.071 Insulated Seed Money .....\$ .....

1.08 Does the reporting entity have a policy for repatriating seed money or remitting fees and expenses due and additional required surplus amounts to the general account:

1.081 Seed Money..... Yes [ ] No [ ]

1.082 Other Fees and Expenses..... Yes [ X ] No [ ]

1.083 Additional Required Surplus Amounts .... Yes [ ] No [ ]

1.09 Provide detail on the time duration for which seed money, other fees and expenses due to the general account and additional required surplus amounts have been held in the separate account:

	1 Seed Money	2 Fees and Expenses Due to the General Account	3 Additional Required Surplus Amounts
1.091 Under 1 Year .....			
1.092 1 Year - 3 Years .....			
1.093 Over 3 Years - 5 Years .....		26,681,599	
1.094 Over 5 Years .....			
1.095 Total		26,681,599	

1.10 For seed money, other fees and expenses, and additional required surplus amounts held in the separate account, does the reporting entity invest these funds in accordance with investment directives of the general account:

1.101 Seed Money..... Yes [ ] No [ ] N/A [ X ]

1.102 Other Fees and Expenses..... Yes [ ] No [ X ] N/A [ ]

1.103 Additional Required Surplus Amounts .... Yes [ ] No [ ] N/A [ X ]

## GENERAL INTERROGATORIES

1.11 If no, does the reporting entity have stated policy and procedure for the investment of seed money, other fees and expenses, and additional required surplus amounts that are retained with the separate account?

1.111 Seed Money..... Yes [ ] No [ ] N/A [ X ]  
 1.112 Other Fees and Expenses..... Yes [ X ] No [ ] N/A [ ]  
 1.113 Additional Required Surplus Amounts .... Yes [ ] No [ ] N/A [ X ]

**Separate Account Products with General Account Guarantees**

- 2.1 Does the reporting entity have products with guarantees provided by the general account? ..... Yes [ X ] No [ ]  
 2.2 Has the separate account collected amounts from the general account within the past five years related to separate account guarantees? ..... Yes [ X ] No [ ]  
 2.3 If yes, provide detail on these guarantees paid by the general account:

	1 Year	2 Amount
2.301	As of December 31, 2020 .....	\$ .....107,117
2.302	As of December 31, 2019 .....	\$ .....97,757
2.303	As of December 31, 2018 .....	\$ .....322,625
2.304	As of December 31, 2017 .....	\$ .....278,674
2.305	As of December 31, 2016 .....	\$ .....517,611

- 2.4 To compensate the general account for the risk taken, for any separate account products with general account guarantees, does the separate account remit risk charges to the general account related to separate account guarantees? ..... Yes [ ] No [ X ]  
 2.5 If yes, identify the separate account products with risk charges that are remitted to the general account and whether the risk charge for that product is reviewed and opined upon:

1	2	3
Product Identifier with Risk Charges	Risk Charge Reviewed and Opined Upon	Name and Title of Individual who Provided Opinion on Risk Charges

2.6 Provide detail on the risk charges paid to the general account related to separate account guarantees for the past five years:

	1 Year	2 Amount
2.601	As of December 31, 2020 .....	\$ .....
2.602	As of December 31, 2019 .....	\$ .....
2.603	As of December 31, 2018 .....	\$ .....
2.604	As of December 31, 2017 .....	\$ .....
2.605	As of December 31, 2016 .....	\$ .....

**Investment Directive of Separate Account Activity**

- 3.1 Does the reporting entity have products classified within the separate account for which the investment directive is not determined by the contract holder? (Situations in which the investments directive mirrors the general account would not be considered determined by the contract holder; however, having the contract holder select an investment direction from multiple options would meet this criteria.) ..... Yes [ X ] No [ ]  
 3.2 If yes, if these investments would have been included in the general account, would the reporting entity have exceeded the investment limitations imposed on the general account? ..... Yes [ ] No [ X ] N/A [ ]  
 3.3 Provide detail on the separate account investment portfolio and state investment limitations. (This includes the combined separate account and general investments, excluding separate account assets with investment direction determined by the contract holder):

1	2	3
Investment Type	State Investment Limitation	Combined Investment (Separate and General Account)

**Allocation of Investment Proceeds of Separate Account Activity**

- 4.1 Does the reporting entity have separate account assets in which less than 100% of investment proceeds (net of contract fees and assessments) are attributed to a contract holder? (This should identify any situations where there is a ceiling on investment performance results.) ..... Yes [ ] No [ X ]

## 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 Product Identifier	2 Net Investment Proceeds	3 Attributed to Contract Holder	4 Transferred to General Account	5 Reinvested Within the Separate Account

4.3 For items reinvested within the Separate Account, does the reporting entity invest these assets in accordance with investment directives of the general account? ..... Yes [ ] No [ ] N/A [ X ]

4.4 If no, does the reporting entity have a stated policy and procedure for the reinvestment of investment proceeds within the separate account? ..... Yes [ ] No [ ] N/A [ X ]

4.5 Did the reinvestment of investment proceeds within the separate account result with the company having a combined investment portfolio that exceeded the state investment limitations imposed on the general account? ..... Yes [ ] No [ ] N/A [ X ]

**Measurement of Separate Account Assets**

5.1 Does the reporting entity report all separate account assets at fair value? ..... Yes [ ] No [ X ]

5.2 For items not reported at fair value, does the reporting entity report separate account assets at amortized cost, and/or under different measurement methods?  
 5.21 Amortized Cost ..... Yes [ X ] No [ ]  
 5.22 Other Measurement Methods ..... Yes [ ] No [ X ]

5.3 If other measurement methods are used, provide explanation on these measurement methods.  
 .....

5.4 Identify the assets measured at fair value, amortized cost or another measurement method and the percentage of separate account assets measured under each measurement method:

Description	1 Amount	2 Percentage
5.41 Fair Value .....	\$ 3,752,567,065	77.2 %
5.42 Amortized Cost .....	\$ 1,106,264,783	22.8 %
5.43 Other Measurement Methods .....	\$ .....	%

5.5 For the assets not measured at fair value, provide a comparison of the reported value to current fair value and identify the unrealized gain or loss that would have been recorded if the assets had been reported at fair value:

1 Assets Held at Amortized Cost	2 Fair Value	3 Unrecorded Unrealized Gain/Loss
5.51... \$ 1,106,264,783	\$ 1,176,823,614	\$ 70,558,830

1 Assets Held at Other Measurement Method	2 Fair Value	3 Unrecorded Unrealized Gain/Loss
5.52... \$ .....	\$ .....	\$ .....

**Securities Lending Transactions Within Separate Accounts**

6.1 Does the reporting entity engage in securities lending transactions with separate account assets? ..... Yes [ ] No [ X ]

6.2 If yes, does the reporting entity have written policies and procedures for such transactions? ..... Yes [ ] No [ ] N/A [ X ]

6.3 Does the reporting entity obtain approval, or otherwise provide notification to contract holders, regarding securities lending transactions that occur with separate account assets? ..... Yes [ ] No [ ] N/A [ X ]

6.4 Are all securities lending transactions reported on balance sheet? ..... Yes [ ] No [ ] N/A [ X ]

6.5 Provide a description of the reporting entity's securities lending transaction program, specifically identifying any variations from the securities lending transaction program administered by the general account.

6.6 Provide detail on the current status of separate account transactions by separate account product:

6.61 Amount of any loaned securities within the separate account and the percentage of separate account assets lent  
 6.611 Amount .....\$ .....  
 6.612 Percentage..... %  
 6.62 Identify whether securities lent are reported at book value or market value  
 6.621 Book Value .....\$ .....  
 6.622 Market Value.....\$ .....

## GENERAL INTERROGATORIES

6.63 Detail on collateral received:

6.631 Aggregate Amount Collateral 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 The aggregate fair value of all securities acquired from the sale, trade or use of the accepted collateral (reinvested collateral) .....\$ .....

6.633 Narrative discussion about sources and uses of collateral:  
 .....

6.634 Collateral for transactions that extend beyond one year from the reporting date .....\$ .....

6.7 For the reporting entity's security lending program state the amount of the following as December 31 of the current year:

6.71 Total fair value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 (Sum of Schedule DL, Parts 1 and 2, Column 5) .....\$ .....  
 6.72 Total book adjusted/carrying value of reinvested collateral assets reported on Schedule DL, Parts 1 and 2 (Sum of Schedule DL, Parts 1 and 2, Column 6) .....\$ .....  
 6.73 Total payable for securities lending reported on the liability page (Page 3, Line 14, Column 3) .....\$ .....

**FHLB Funding Agreements**

7.1 Does the reporting entity report Federal Home Loan Bank (FHLB) funding agreements within the separate account? ..... Yes [ ] No [ X ]

7.2 Provide detail on the elements that support the classification of FHLB funding agreements within the separate account  
 .....

7.3 Provide detail regarding the FHLB funding agreements classified within the separate account:

1 Amount of FHLB Stock Purchased or Owned	2 Amount of Collateral Pledged to the FHLB	3 Total Borrowing or Funding Capacity Currently Available	4 Total Reserves Related to FHLB Agreements
\$ .....	\$ .....	\$ .....	\$ .....

7.4 For funding agreements within the separate account, provide a general description on the nature of the agreement, type of funding (lines of credit, borrowed money, etc) and intended use of funding.  
 .....

**Reporting Differences Between GAAP and SAP Financial Statements (This disclosure is applicable to all reporting entities regardless if they file GAAP financial statements)**

8.1 Does the reporting entity file GAAP financial statements? ..... Yes [ ] No [ X ]

8.2 In accordance with the different separate account reporting requirements between GAAP (SOP 03-1) and statutory accounting, does the reporting entity have products that are classified within the separate account that were, or would have been if GAAP financial statements had been completed, required to be reported within the general account under GAAP financials? Pursuant to SOP 03-1, all of the following conditions must be met to receive separate account reporting classification under GAAP: ..... Yes [ X ] No [ ] N/A [ ]

- a. Legal Recognition - The separate account is legally recognized. That is, the separate account is established, approved, and regulated under special rules such as state insurance laws, federal securities laws, or similar foreign laws.
- b. Legally Insulated - The separate account assets supporting the contract liabilities are legally insulated from the general account liabilities of the insurance enterprise (that is, the contract holder is not subject to insurer default risk to the extent of the assets held in the separate account).
- 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

8.3 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
Product Identifier	Same as GAAP / Condition that Requires GAAP General Account Reporting
Stable Value Bank-owned Life Insurance .....	GAAP GIA Classification due to Investment Performance .....
Bank-owned Life Insurance - Guaranteed .....	GAAP GIA Classification due to Investment Performance .....
Individual Variable Universal Life .....	Same as GAAP .....
Corporate-owned Life Insurance .....	Same as GAAP .....
Individual Variable Annuity .....	Same as GAAP .....



**FORM FOR CALCULATING THE INTEREST MAINTENANCE RESERVE**

**INTEREST MAINTENANCE RESERVE**

	1 Amount
1. Reserve as of December 31, Prior Year .....	1,080,191
2. Current year's realized pre-tax capital gains/(losses) of \$ ..... 19,868,075 transferred into the reserve net of taxes of \$ ..... (6,953,825) .....	12,914,250
3. Adjustment for current year's liability gains/(losses) released from the reserve .....	(12,914,250)
4. Balance before reduction for amount transferred to Summary of Operations (Line 1 + Line 2 + Line 3) .....	1,080,191
5. Current year's amortization released to Summary of Operations (Amortization, Line 1, Column 4) .....	199,905
6. Reserve as of December 31, current year (Line 4 minus Line 5)	880,287

**AMORTIZATION**

Year of Amortization	1 Reserve as of December 31, Prior Year	2 Current Year's Realized Capital Gains/(Losses) Transferred into the Reserve Net of Taxes	3 Adjustment for Current Year's Liability Gains/(Losses) Released From the Reserve	4 Balance Before Reduction for Current Year's Amortization (Cols. 1 + 2 + 3)
1. 2020 .....	199,899	631,270	(631,264)	199,905
2. 2021 .....	201,531	1,182,052	(1,182,057)	201,526
3. 2022 .....	205,545	1,038,183	(1,038,183)	205,545
4. 2023 .....	218,817	941,464	(941,464)	218,817
5. 2024 .....	220,096	835,862	(835,862)	220,096
6. 2025 .....	192,984	725,886	(725,886)	192,984
7. 2026 .....	147,494	647,929	(647,929)	147,494
8. 2027 .....	92,398	596,001	(596,001)	92,398
9. 2028 .....	31,684	546,686	(546,686)	31,684
10. 2029 .....	(24,188)	489,503	(489,503)	(24,188)
11. 2030 .....	(47,764)	429,976	(429,976)	(47,764)
12. 2031 .....	(54,315)	395,426	(395,426)	(54,315)
13. 2032 .....	(53,310)	377,185	(377,185)	(53,310)
14. 2033 .....	(49,230)	357,872	(357,872)	(49,230)
15. 2034 .....	(47,355)	331,512	(331,512)	(47,355)
16. 2035 .....	(47,009)	315,275	(315,275)	(47,009)
17. 2036 .....	(40,456)	296,854	(296,854)	(40,456)
18. 2037 .....	(32,313)	283,408	(283,408)	(32,313)
19. 2038 .....	(24,203)	267,318	(267,318)	(24,203)
20. 2039 .....	(10,114)	255,725	(255,725)	(10,114)
21. 2040 .....		233,239	(233,239)	
22. 2041 .....		228,786	(228,786)	
23. 2042 .....		227,288	(227,288)	
24. 2043 .....		231,532	(231,532)	
25. 2044 .....		225,844	(225,844)	
26. 2045 .....		233,761	(233,761)	
27. 2046 .....		207,121	(207,121)	
28. 2047 .....		164,756	(164,756)	
29. 2048 .....		117,683	(117,683)	
30. 2049 .....		75,317	(75,317)	
31. 2050 and Later		23,537	(23,537)	
32. Total (Lines 1 to 31)	1,080,191	12,914,250	(12,914,250)	1,080,191

**ASSET VALUATION RESERVE**  
**BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS**  
**DEFAULT COMPONENT**

Line Number	NAIC Designation	Description	1 Book/Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4 x 5)	7 Factor	8 Amount (Cols. 4 x 7)	9 Factor	10 Amount (Cols. 4 x 9)
<b>LONG-TERM BONDS</b>												
1.		Exempt Obligations	363,354,717	XXX	XXX	363,354,717	0.0000		0.0000		0.0000	
2.1	1	NAIC Designation Category 1.A	125,981,370	XXX	XXX	125,981,370	0.0005	62,991	0.0016	201,570	0.0033	415,739
2.2	1	NAIC Designation Category 1.B	22,367,495	XXX	XXX	22,367,495	0.0005	11,184	0.0016	35,788	0.0033	73,813
2.3	1	NAIC Designation Category 1.C	34,378,864	XXX	XXX	34,378,864	0.0005	17,189	0.0016	55,006	0.0033	113,450
2.4	1	NAIC Designation Category 1.D	62,789,475	XXX	XXX	62,789,475	0.0005	31,395	0.0016	100,463	0.0033	207,205
2.5	1	NAIC Designation Category 1.E	52,789,559	XXX	XXX	52,789,559	0.0005	26,395	0.0016	84,463	0.0033	174,206
2.6	1	NAIC Designation Category 1.F	111,807,112	XXX	XXX	111,807,112	0.0005	55,904	0.0016	178,891	0.0033	368,963
2.7	1	NAIC Designation Category 1.G	92,350,138	XXX	XXX	92,350,138	0.0005	46,175	0.0016	147,760	0.0033	304,755
2.8		Subtotal NAIC 1 (2.1+2.2+2.3+2.4+2.5+2.6+2.7)	502,464,013	XXX	XXX	502,464,013	XXX	251,232	XXX	803,942	XXX	1,658,131
3.1	2	NAIC Designation Category 2.A	89,318,416	XXX	XXX	89,318,416	0.0021	187,569	0.0064	571,638	0.0106	946,775
3.2	2	NAIC Designation Category 2.B	85,357,175	XXX	XXX	85,357,175	0.0021	179,250	0.0064	546,286	0.0106	904,786
3.3	2	NAIC Designation Category 2.C	30,391,269	XXX	XXX	30,391,269	0.0021	63,822	0.0064	194,504	0.0106	322,147
3.4		Subtotal NAIC 2 (3.1+3.2+3.3)	205,066,860	XXX	XXX	205,066,860	XXX	430,640	XXX	1,312,428	XXX	2,173,709
4.1	3	NAIC Designation Category 3.A	1,544,155	XXX	XXX	1,544,155	0.0099	15,287	0.0263	40,611	0.0376	58,060
4.2	3	NAIC Designation Category 3.B	10,022,619	XXX	XXX	10,022,619	0.0099	99,224	0.0263	263,595	0.0376	376,850
4.3	3	NAIC Designation Category 3.C	3,275,089	XXX	XXX	3,275,089	0.0099	32,423	0.0263	86,135	0.0376	123,143
4.4		Subtotal NAIC 3 (4.1+4.2+4.3)	14,841,863	XXX	XXX	14,841,863	XXX	146,934	XXX	390,341	XXX	558,054
5.1	4	NAIC Designation Category 4.A	717	XXX	XXX	717	0.0245	18	0.0572	41	0.0817	59
5.2	4	NAIC Designation Category 4.B	7,990,231	XXX	XXX	7,990,231	0.0245	195,761	0.0572	457,041	0.0817	652,802
5.3	4	NAIC Designation Category 4.C		XXX	XXX		0.0245		0.0572		0.0817	
5.4		Subtotal NAIC 4 (5.1+5.2+5.3)	7,990,948	XXX	XXX	7,990,948	XXX	195,778	XXX	457,082	XXX	652,860
6.1	5	NAIC Designation Category 5.A		XXX	XXX		0.0630		0.1128		0.1880	
6.2	5	NAIC Designation Category 5.B	2,352,292	XXX	XXX	2,352,292	0.0630	148,194	0.1128	265,339	0.1880	442,231
6.3	5	NAIC Designation Category 5.C		XXX	XXX		0.0630		0.1128		0.1880	
6.4		Subtotal NAIC 5 (6.1+6.2+6.3)	2,352,292	XXX	XXX	2,352,292	XXX	148,194	XXX	265,339	XXX	442,231
7.	6	NAIC 6		XXX	XXX		0.0000		0.2370		0.2370	
8.		Total Unrated Multi-class Securities Acquired by Conversion		XXX	XXX		XXX		XXX		XXX	
9.		Total Long-Term Bonds (1+2.8+3.4+4.4+5.4+6.4+7+8)	1,096,070,693	XXX	XXX	1,096,070,693	XXX	1,172,779	XXX	3,229,132	XXX	5,484,985
<b>PREFERRED STOCKS</b>												
10.	1	Highest Quality		XXX	XXX		0.0005		0.0016		0.0033	
11.	2	High Quality		XXX	XXX		0.0021		0.0064		0.0106	
12.	3	Medium Quality		XXX	XXX		0.0099		0.0263		0.0376	
13.	4	Low Quality		XXX	XXX		0.0245		0.0572		0.0817	
14.	5	Lower Quality		XXX	XXX		0.0630		0.1128		0.1880	
15.	6	In or Near Default		XXX	XXX		0.0000		0.2370		0.2370	
16.		Affiliated Life with AVR		XXX	XXX		0.0000		0.0000		0.0000	
17.		Total Preferred Stocks (Sum of Lines 10 through 16)		XXX	XXX		XXX		XXX		XXX	

**ASSET VALUATION RESERVE (Continued)**  
**BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS**  
**DEFAULT COMPONENT**

Line Number	NAIC Designation	Description	1 Book/Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols. 4 x 5)	7 Factor	8 Amount (Cols. 4 x 7)	9 Factor	10 Amount (Cols. 4 x 9)
<b>SHORT-TERM BONDS</b>												
18.		Exempt Obligations		XXX	XXX		0.0000		0.0000		0.0000	
19.1	1	NAIC Designation Category 1.A		XXX	XXX		0.0005		0.0016		0.0033	
19.2	1	NAIC Designation Category 1.B		XXX	XXX		0.0005		0.0016		0.0033	
19.3	1	NAIC Designation Category 1.C		XXX	XXX		0.0005		0.0016		0.0033	
19.4	1	NAIC Designation Category 1.D		XXX	XXX		0.0005		0.0016		0.0033	
19.5	1	NAIC Designation Category 1.E		XXX	XXX		0.0005		0.0016		0.0033	
19.6	1	NAIC Designation Category 1.F		XXX	XXX		0.0005		0.0016		0.0033	
19.7	1	NAIC Designation Category 1.G	300,169	XXX	XXX	300,169	0.0005	150	0.0016	480	0.0033	991
19.8		Subtotal NAIC 1 (19.1+19.2+19.3+19.4+19.5+19.6+19.7)	300,169	XXX	XXX	300,169	XXX	150	XXX	480	XXX	991
20.1	2	NAIC Designation Category 2.A	205,543	XXX	XXX	205,543	0.0021	432	0.0064	1,315	0.0106	2,179
20.2	2	NAIC Designation Category 2.B	2,608,167	XXX	XXX	2,608,167	0.0021	5,477	0.0064	16,692	0.0106	27,647
20.3	2	NAIC Designation Category 2.C		XXX	XXX		0.0021		0.0064		0.0106	
20.4		Subtotal NAIC 2 (20.1+20.2+20.3)	2,813,710	XXX	XXX	2,813,710	XXX	5,909	XXX	18,008	XXX	29,825
21.1	3	NAIC Designation Category 3.A		XXX	XXX		0.0099		0.0263		0.0376	
21.2	3	NAIC Designation Category 3.B		XXX	XXX		0.0099		0.0263		0.0376	
21.3	3	NAIC Designation Category 3.C		XXX	XXX		0.0099		0.0263		0.0376	
21.4		Subtotal NAIC 3 (21.1+21.2+21.3)		XXX	XXX		XXX		XXX		XXX	
22.1	4	NAIC Designation Category 4.A		XXX	XXX		0.0245		0.0572		0.0817	
22.2	4	NAIC Designation Category 4.B		XXX	XXX		0.0245		0.0572		0.0817	
22.3	4	NAIC Designation Category 4.C		XXX	XXX		0.0245		0.0572		0.0817	
22.4		Subtotal NAIC 4 (22.1+22.2+22.3)		XXX	XXX		XXX		XXX		XXX	
23.1	5	NAIC Designation Category 5.A		XXX	XXX		0.0630		0.1128		0.1880	
23.2	5	NAIC Designation Category 5.B		XXX	XXX		0.0630		0.1128		0.1880	
23.3	5	NAIC Designation Category 5.C		XXX	XXX		0.0630		0.1128		0.1880	
23.4		Subtotal NAIC 5 (23.1+23.2+23.3)		XXX	XXX		XXX		XXX		XXX	
24.	6	NAIC 6		XXX	XXX		0.0000		0.2370		0.2370	
25.		Total Short-Term Bonds (18+19.8+20.4+21.4+22.4+23.4+24)	3,113,879	XXX	XXX	3,113,879	XXX	6,059	XXX	18,488	XXX	30,816
<b>DERIVATIVE INSTRUMENTS</b>												
26.		Exchange Traded		XXX	XXX		0.0005		0.0016		0.0033	
27.	1	Highest Quality	33,649	XXX	XXX	33,649	0.0005	17	0.0016	54	0.0033	111
28.	2	High Quality		XXX	XXX		0.0021		0.0064		0.0106	
29.	3	Medium Quality		XXX	XXX		0.0099		0.0263		0.0376	
30.	4	Low Quality		XXX	XXX		0.0245		0.0572		0.0817	
31.	5	Lower Quality		XXX	XXX		0.0630		0.1128		0.1880	
32.	6	In or Near Default		XXX	XXX		0.0000		0.2370		0.2370	
33.		Total Derivative Instruments	33,649	XXX	XXX	33,649	XXX	17	XXX	54	XXX	111
34.		Total (Lines 9 + 17 + 25 + 33)	1,099,218,221	XXX	XXX	1,099,218,221	XXX	1,178,855	XXX	3,247,674	XXX	5,515,912

**ASSET VALUATION RESERVE (Continued)**  
**BASIC CONTRIBUTION, RESERVE OBJECTIVE AND MAXIMUM RESERVE CALCULATIONS**  
**DEFAULT COMPONENT**

Line Number	NAIC Designation	Description	1 Book/Adjusted Carrying Value	2 Reclassify Related Party Encumbrances	3 Add Third Party Encumbrances	4 Balance for AVR Reserve Calculations (Cols. 1 + 2 + 3)	Basic Contribution		Reserve Objective		Maximum Reserve	
							5 Factor	6 Amount (Cols.4 x 5)	7 Factor	8 Amount (Cols. 4 x 7)	9 Factor	10 Amount (Cols. 4 x 9)
MORTGAGE LOANS												
In Good Standing:												
35.		Farm Mortgages - CM1 - Highest Quality .....			XXX		0.0011		0.0057		0.0074	
36.		Farm Mortgages - CM2 - High Quality .....			XXX		0.0040		0.0114		0.0149	
37.		Farm Mortgages - CM3 - Medium Quality .....			XXX		0.0069		0.0200		0.0257	
38.		Farm Mortgages - CM4 - Low Medium Quality .....			XXX		0.0120		0.0343		0.0428	
39.		Farm Mortgages - CM5 - Low Quality .....			XXX		0.0183		0.0486		0.0628	
40.		Residential Mortgages - Insured or Guaranteed .....	10,194,089		XXX	10,194,089	0.0003	3,058	0.0007	7,136	0.0011	11,213
41.		Residential Mortgages - All Other .....			XXX		0.0015		0.0034		0.0046	
42.		Commercial Mortgages - Insured or Guaranteed .....			XXX		0.0003		0.0007		0.0011	
43.		Commercial Mortgages - All Other - CM1 - Highest Quality .....			XXX		0.0011		0.0057		0.0074	
44.		Commercial Mortgages - All Other - CM2 - High Quality .....			XXX		0.0040		0.0114		0.0149	
45.		Commercial Mortgages - All Other - CM3 - Medium Quality .....			XXX		0.0069		0.0200		0.0257	
46.		Commercial Mortgages - All Other - CM4 - Low Medium Quality .....			XXX		0.0120		0.0343		0.0428	
47.		Commercial Mortgages - All Other - CM5 - Low Quality .....			XXX		0.0183		0.0486		0.0628	
Overdue, Not in Process:												
48.		Farm Mortgages .....			XXX		0.0480		0.0868		0.1371	
49.		Residential Mortgages - Insured or Guaranteed .....			XXX		0.0006		0.0014		0.0023	
50.		Residential Mortgages - All Other .....			XXX		0.0029		0.0066		0.0103	
51.		Commercial Mortgages - Insured or Guaranteed .....			XXX		0.0006		0.0014		0.0023	
52.		Commercial Mortgages - All Other .....			XXX		0.0480		0.0868		0.1371	
In Process of Foreclosure:												
53.		Farm Mortgages .....			XXX		0.0000		0.1942		0.1942	
54.		Residential Mortgages - Insured or Guaranteed .....			XXX		0.0000		0.0046		0.0046	
55.		Residential Mortgages - All Other .....			XXX		0.0000		0.0149		0.0149	
56.		Commercial Mortgages - Insured or Guaranteed .....			XXX		0.0000		0.0046		0.0046	
57.		Commercial Mortgages - All Other .....			XXX		0.0000		0.1942		0.1942	
58.		Total Schedule B Mortgages (Sum of Lines 35 through 57)	10,194,089		XXX	10,194,089	XXX	3,058	XXX	7,136	XXX	11,213
59.		Schedule DA Mortgages			XXX		0.0034		0.0114		0.0149	
60.		Total Mortgage Loans on Real Estate (Lines 58 + 59)	10,194,089		XXX	10,194,089	XXX	3,058	XXX	7,136	XXX	11,213

Asset Valuation Reserve - Equity Component

**N O N E**

Asset Valuation Reserve - Replications (Synthetic) Assets

**N O N E**

**OVERFLOW PAGE FOR WRITE-INS**

**NONE**

## SCHEDULE A - VERIFICATION BETWEEN YEARS

Real Estate

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 6) .....	
2.2	Additional investment made after acquisition (Part 2, Column 9) .....	
3.	Current year change in encumbrances:	
3.1	Totals, Part 1, Column 13 .....	
3.2	Totals, Part 3, Column 11 .....	
4.	Total gain (loss) on disposals, Part 3, Column 18 .....	
5.	Deduct amounts received on disposals, Part 3, Column 15 .....	
6.	Total foreign exchange change in book/adjusted carrying value:	
6.1	Totals, Part 1, Column 15 .....	
6.2	Totals, Part 3, Column 13 .....	
7.	Deduct current year's other than temporary impairment recognized:	
7.1	Totals, Part 1, Column 12 .....	
7.2	Totals, Part 3, Column 10 .....	
8.	Deduct current year's depreciation:	
8.1	Totals, Part 1, Column 11 .....	
8.2	Totals, Part 3, Column 9 .....	
9.	Book/adjusted carrying value at the end of current period (Lines 1+2+3+4-5+6-7-8) .....	
10.	Deduct total nonadmitted amounts .....	
11.	Statement value at end of current period (Line 9 minus Line 10) .....	

NONE

## SCHEDULE B - VERIFICATION BETWEEN YEARS

Mortgage Loans

1.	Book value/recorded investment excluding accrued interest, December 31 of prior year .....	11,478,238
2.	Cost of acquired:	
2.1	Actual cost at time of acquisition (Part 2, Column 7) .....	
2.2	Additional investment made after acquisition (Part 2, Column 8) .....	4,099
3.	Capitalized deferred interest and other:	
3.1	Totals, Part 1, Column 12 .....	
3.2	Totals, Part 3, Column 11 .....	
4.	Accrual of discount .....	1,566
5.	Unrealized valuation increase (decrease):	
5.1	Totals, Part 1, Column 9 .....	
5.2	Totals, Part 3, Column 8 .....	
6.	Total gain (loss) on disposals, Part 3, Column 18 .....	
7.	Deduct amounts received on disposals, Part 3, Column 15 .....	1,261,591
8.	Deduct amortization of premium and mortgage interest points and commitment fees .....	28,222
9.	Total foreign exchange change in book value/recorded investment excluding accrued interest:	
9.1	Totals, Part 1, Column 13 .....	
9.2	Totals, Part 3, Column 13 .....	
10.	Deduct current year's other than temporary impairment recognized:	
10.1	Totals, Part 1, Column 11 .....	
10.2	Totals, Part 3, Column 10 .....	
11.	Book value/recorded investment excluding accrued interest at end of current period (Lines 1+2+3+4+5+6-7-8+9-10) .....	10,194,089
12.	Total valuation allowance .....	
13.	Subtotal (Line 11 plus 12) .....	10,194,089
14.	Deduct total nonadmitted amounts .....	
15.	Statement value of mortgages owned at end of current period (Line 13 minus Line 14) .....	10,194,089

## 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, Column 16 .....	
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) .....	

**NONE**

## SCHEDULE D - VERIFICATION BETWEEN YEARS

Bonds and Stocks

1.	Book/adjusted carrying value, December 31 of prior year .....	4,373,732,204
2.	Cost of bonds and stocks acquired, Part 3, Column 7 .....	2,059,452,267
3.	Accrual of discount .....	1,306,635
4.	Unrealized valuation increase (decrease):	
	4.1. Part 1, Column 12 .....	66,156,968
	4.2. Part 2, Section 1, Column 15 .....	
	4.3. Part 2, Section 2, Column 13 .....	53,903,851
	4.4. Part 4, Column 11 .....	(97,373,899)
		22,686,920
5.	Total gain (loss) on disposals, Part 4, Column 19 .....	68,292,302
6.	Deduction consideration for bonds and stocks disposed of, Part 4, Column 7 .....	1,977,950,425
7.	Deduct amortization of premium .....	2,753,688
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, Note 5Q, Line 2 .....	338,878
11.	Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9+10) .....	4,545,105,093
12.	Deduct total nonadmitted amounts .....	
13.	Statement value at end of current period (Line 11 minus Line 12) .....	4,545,105,093



ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**SCHEDULE D - SUMMARY BY COUNTRY**

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

Description		1 Book/Adjusted Carrying Value	2 Fair Value	3 Actual Cost	4 Par Value of Bonds
<b>BONDS</b>					
Governments (Including all obligations guaranteed by governments)	1. United States .....	597,476,398	617,286,844	589,964,889	580,262,889
	2. Canada .....	9,653,068	10,257,856	9,814,708	9,305,000
	3. Other Countries	6,088,551	6,726,609	6,055,733	5,911,100
	4. Totals	613,218,017	634,271,309	605,835,330	595,478,989
U.S. States, Territories and Possessions (Direct and guaranteed)	5. Totals	329,299	329,299	249,504	235,000
U.S. Political Subdivisions of States, Territories and Possessions (Direct and guaranteed)	6. Totals	443,326	470,704	427,869	395,000
U.S. Special Revenue and Special Assessment Obligations and all Non- Guaranteed Obligations of Agencies and Authorities of Governments and their Political Subdivisions	7. Totals	1,525,410,201	1,529,603,033	1,475,945,001	1,424,267,256
Industrial and Miscellaneous, SVO Identified Funds, Unaffiliated Bank Loans and Hybrid Securities (unaffiliated)	8. United States .....	1,110,273,375	1,150,529,486	1,079,892,505	1,049,932,019
	9. Canada .....	21,703,872	23,130,265	21,666,123	21,658,266
	10. Other Countries	78,171,362	81,489,520	78,041,409	77,082,469
	11. Totals	1,210,148,609	1,255,149,271	1,179,600,037	1,148,672,754
Parent, Subsidiaries and Affiliates	12. Totals				
	13. Total Bonds	3,349,549,452	3,419,823,616	3,262,057,741	3,169,048,999
<b>PREFERRED STOCKS</b>					
Industrial and Miscellaneous (unaffiliated)	14. United States .....				
	15. Canada .....				
	16. Other Countries				
	17. Totals				
Parent, Subsidiaries and Affiliates	18. Totals				
	19. Total Preferred Stocks				
<b>COMMON STOCKS</b>					
Industrial and Miscellaneous (unaffiliated)	20. United States .....	1,195,555,641	1,195,555,641	1,006,430,030	
	21. Canada .....				
	22. Other Countries				
	23. Totals	1,195,555,641	1,195,555,641	1,006,430,030	
Parent, Subsidiaries and Affiliates	24. Totals				
	25. Total Common Stocks	1,195,555,641	1,195,555,641	1,006,430,030	
	26. Total Stocks	1,195,555,641	1,195,555,641	1,006,430,030	
	27. Total Bonds and Stocks	4,545,105,093	4,615,379,257	4,268,487,771	

ANNUAL STATEMENT FOR THE YEAR 2020 OF THE SEPARATE ACCOUNTS OF THE MML Bay State Life Insurance Company

**SCHEDULE DA - VERIFICATION BETWEEN YEARS**

Short-Term Investments

	1	2	3	4	5
	Total	Bonds	Mortgage Loans	Other Short-term Investment Assets (a)	Investments in Parent, Subsidiaries and Affiliates
1. Book/adjusted carrying value, December 31 of prior year .....	57,419,173	57,419,173			
2. Cost of short-term investments acquired .....	225,404,943	225,404,943			
3. Accrual of discount .....	7,848	7,848			
4. Unrealized valuation increase (decrease) .....					
5. Total gain (loss) on disposals .....	679,967	679,967			
6. Deduct consideration received on disposals .....	197,508,360	197,508,360			
7. Deduct amortization of premium .....	23,014	23,014			
8. Total foreign exchange change in book/adjusted carrying value .....					
9. Deduct current year's other than temporary impairment recognized .....					
10. Book adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) .....	85,980,557	85,980,557			
11. Deduct total nonadmitted amounts .....					
12. Statement value at end of current period (Line 10 minus Line 11)	85,980,557	85,980,557			

(a) Indicate the category of such assets, for example, joint ventures, transportation equipment:

**SCHEDULE DB - PART A - VERIFICATION BETWEEN YEARS**

Options, Caps, Floors, Collars, Swaps and Forwards

1. Book/adjusted carrying value, December 31, prior year (Line 10, prior year)	40,516
2. Cost paid/(consideration received) on additions:	
2.1 Current year paid/(consideration received) at time of acquisition, still open, Section 1, Column 12	
2.2 Current year paid/(consideration received) at time of acquisition, terminated, Section 2, Column 14	
3. Unrealized valuation increase/(decrease):	
3.1 Section 1, Column 17	105,621
3.2 Section 2, Column 19	(40,516)
	65,105
4. SSAP No. 108 Adjustments	
5. Total gain (loss) on termination recognized, Section 2, Column 22	1,674,637
6. Considerations received/(paid) on terminations, Section 2, Column 15	1,674,637
7. Amortization:	
7.1 Section 1, Column 19	
7.2 Section 2, Column 21	
8. Adjustment to the book/adjusted carrying value of hedged item:	
8.1 Section 1, Column 20	
8.2 Section 2, Column 23	
9. Total foreign exchange change in book/adjusted carrying value:	
9.1 Section 1, Column 18	
9.2 Section 2, Column 20	
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6+7+8+9)	105,621
11. Deduct nonadmitted assets	
12. Statement value at end of current period (Line 10 minus Line 11)	105,621

**SCHEDULE DB - PART B - VERIFICATION**

Futures Contracts

1. Book/Adjusted carrying value, December 31 of prior year (Line 6, prior year)	
2. Cumulative cash change (Section 1, Broker Name/Net Cash Deposits Footnote - Cumulative Cash Change Column)	
3.1 Add:	
Change in variation margin on open contracts - Highly effective hedges	
3.11 Section 1, Column 15, current year minus	
3.12 Section 1, Column 15, prior year	
Change in variation margin on open contracts - All other	
3.13 Section 1, Column 18, current year minus	
3.14 Section 1, Column 18, prior year	
3.2 Add:	
Change in adjustment to basis of hedged item	
3.21 Section 1, Column 17, current year to date minus	
3.22 Section 1, Column 17, prior year	
Change in amount recognized	
3.23 Section 1, Column 19, current year to date minus	
3.24 Section 1, Column 19, prior year plus	
3.25 SSAP No. 108 Adjustments	
3.3 Subtotal (Line 3.1 minus Line 3.2)	
4.1 Cumulative variation margin on terminated contracts during the year (Section 2, Column 15)	
4.2 Less:	
4.21 Amount used to adjust basis of hedged item (Section 2, Column 17)	
4.22 Amount recognized (Section 2, Column 16)	
4.23 SSAP No. 108 Adjustments	
4.3 Subtotal (Line 4.1 minus Line 4.2)	
5. Dispositions gains (losses) on contracts terminated in prior year:	
5.1 Total gain (loss) recognized for terminations in prior year	
5.2 Total gain (loss) adjusted into the hedged item(s) for terminations in prior year	
6. Book/Adjusted carrying value at end of current period (Lines 1+2+3.3-4.3-5.1-5.2)	
7. Deduct total nonadmitted amounts	
8. Statement value at end of current period (Line 6 minus Line 7)	

**NONE**

Schedule DB - Part C - Section 1 - Replication (Synthetic Asset) Transactions (RSATs) Open

**N O N E**

Schedule DB-Part C-Section 2-Reconciliation of Replication (Synthetic Asset) Transactions Open

**N O N E**

## SCHEDULE DB - VERIFICATION

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

	Book/Adjusted Carrying Value Check
1. Part A, Section 1, Column 14.....	105,621
2. Part B, Section 1, Column 15 plus Part B, Section 1 Footnote - Total Ending Cash Balance .....	.....
3. Total (Line 1 plus Line 2) .....	105,621
4. Part D, Section 1, Column 5 .....	191,478
5. Part D, Section 1, Column 6 .....	(85,857)
6. Total (Line 3 minus Line 4 minus Line 5) .....	.....
Fair Value Check	
7. Part A, Section 1, Column 16 .....	105,621
8. Part B, Section 1, Column 13 .....	.....
9. Total (Line 7 plus Line 8) .....	105,621
10. Part D, Section 1, Column 8 .....	191,478
11. Part D, Section 1, Column 9 .....	(85,857)
12. Total (Line 9 minus Line 10 minus Line 11) .....	.....
Potential Exposure Check	
13. Part A, Section 1, Column 21 .....	6,172,360
14. Part B, Section 1, Column 20 .....	.....
15. Part D, Section 1, Column 11 .....	6,172,360
16. Total (Line 13 plus Line 14 minus Line 15) .....	.....

**SCHEDULE E - PART 2 - VERIFICATION BETWEEN YEARS**

(Cash Equivalents)

	1 Total	2 Bonds	3 Money Market Mutual funds	4 Other (a)
1. Book/adjusted carrying value, December 31 of prior year .....	153,437,263	73,220,736	80,216,527	
2. Cost of cash equivalents acquired .....	2,039,172,347	709,182,270	1,329,990,077	
3. Accrual of discount .....				
4. Unrealized valuation increase (decrease) .....				
5. Total gain (loss) on disposals .....	425,831	425,831		
6. Deduct consideration received on disposals .....	1,991,760,933	741,738,749	1,250,022,184	
7. Deduct amortization of premium .....	93	93		
8. Total foreign exchange change in book/adjusted carrying value .....				
9. Deduct current year's other than temporary impairment recognized .....				
10. Book/adjusted carrying value at end of current period (Lines 1+2+3+4+5-6-7+8-9) .....	201,274,415	41,089,995	160,184,420	
11. Deduct total nonadmitted amounts .....				
12. Statement value at end of current period (Line 10 minus Line 11)	201,274,415	41,089,995	160,184,420	

(a) Indicate the category of such investments, for example, joint ventures, transportation equipment: